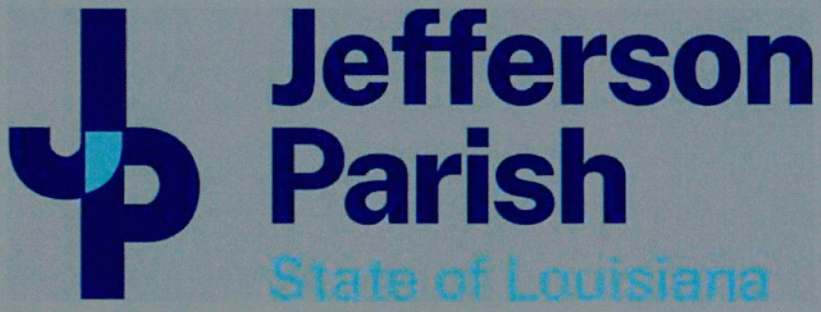
NPDES MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) DISCHARGE PERMIT





2022-2027 STORMWATER MANAGEMENT PROGRAM FOR JEFFERSON PARISH

PREPARED FOR

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INTRODUCTION

This Storm Water Management Program (SWMP) has been drafted to meet the requirements of Jefferson Parish's (Parish) Municipal Separate Storm Sewer System (MS4) permit issued by the Louisiana Department of Environmental Quality (LDEQ). This permit has been created by the USEPA under the National Pollutant Discharge Elimination System (NPDES) to address the water quality issues associated with the storm water runoff from the drainage areas included in the MS4 permit, Permit Number LAS000201.

In order to provide some perspective on the unique nature of this type of permit for the Parish, this introduction provides a brief description of the drainage and flood control system that comprises the MS4. The Parish is bounded on the north by Lake Pontchartrain (St. Tammany Parish), to the east by Orleans and Plaquemines Parishes, to the west by St. Charles and Lafourche Parishes and to the south by the Gulf of Mexico. The drainage areas included in the MS4 are those portions of the Parish adjacent to the Mississippi River. The portion of the Parish north of the River is referred to as the East Bank, while the portion south of the River is referred to as the West Bank. Because much of the land in the Parish is at an elevation at or below mean sea level (MSL), the entire East Bank and a portion of the West Bank are surrounded by flood and hurricane protection levees. The levees bordering the Mississippi River are at approximately elevation +28 feet above MSL, while the levees bordering Lake Pontchartrain, the Barataria Basin and adjacent Parishes average about +16 feet above MSL. The difference in levee elevations is due to the separate nature of the threats that they protect against. The Mississippi River levees are intended to protect against flood stage water levels in the river, while the remaining levees are intended to protect against hurricane induced tidal surges in both Lake Pontchartrain and from the Barataria Basin to the south.

Storm Water Drainage System

As a result of this system of levees, there is no gravity drainage discharge outlet to waters of the United States from within the MS4. Rainfall occurring within this area is removed entirely by a system of conveyance canals and pumps. The canals transport the runoff from the local gravity collection basins to the pumping stations. High volume, low-lift pumps are used at the pumping stations to lift the water from the canals to the higher water surface elevation of either Lake Pontchartrain, the Mississippi River or to the lakes, bayous and canals of the Barataria Basin.

Jefferson Parish's topographical characteristics and below sea level elevations have necessitated unique facilities such as protective levees, open drainage canals, and pump stations to provide adequate drainage and flood protection. Over the years, Jefferson Parish's MS4 has evolved into a system of approximately 340 miles of open drainage canals and ditches for collection and conveyance of storm water runoff. Jefferson Parish drainage system serves approximately 80,200 acres of industrial, commercial, residential, and unclassified areas. The system is subdivided into thirteen subbasins with boundaries provided by the Mississippi River, Harvey Canal, Parish boundaries, and flood protection levees, see Figure 1. Additionally, see the maps of the storm water drainage system provided in Appendix E.

In addition to the 340 miles of open canals and ditches, Jefferson Parish maintains approximately 1,620 miles of subsurface drain lines providing local drainage to the urban environment. Storm water runoff

from residential, commercial, and industrial land areas are drained via drop inlets. Subsurface drainage lines convey storm water into open drainage canals. Finally, storm water is discharged into waters of the United States through several high capacity pump stations.

Drainage Pump Stations

Most of the land surface within Jefferson Parish is at or below sea level elevations. This topographical characteristic has created a "saucer" effect in the drainage basin. Therefore, Jefferson Parish has, over the years, designed and constructed several high capacity pump stations to convey collected storm water runoff within the storm water drainage system to waters of the United States.

Jefferson Parish currently owns and operates 31 major pump stations to minimize local flooding within the MS4 Permit area. A pump station is considered to be major if the capacity is greater than 100 cubic feet per second (CFS). The East Bank has 12 major pump stations that have a total capacity of 22,900 CFS serving an area of 31,734 acres. The West Bank has 19 major pump stations with a total capacity of 26,096 CFS serving an area of 48,483 acres. These major pump stations combined have the capacity to pump storm water at a rate of approximately 38 billion gallons of rainfall per day. In addition to the major pump stations, Jefferson Parish also owns and operates 42 minor pump stations (capacity <100 CFS). The East Bank has 26 minor pump stations that have a total capacity of 942 CFS. Lafitte and Crown Point have a total of 16 minor pump stations that have a total capacity of 623 CFS. These minor pump stations combined have the capacity to pump storm water at a rate of approximately 836 million gallons of rainfall per day.

The Jefferson Parish Department of Drainage currently maintains a constant water level in the canals to minimize fluctuating groundwater and to reduce regional subsidence and canal bank slope failures. The operation of the pump stations in this manner renders the open drainage canal system as very long, slender retention basins.



Figure 1. Jefferson Parish MS4 Subbasins

SECTION 1: STRUCTURAL CONTROLS AND STORM WATER COLLECTION SYSTEM OPERATION

1.1 Program Description

In accordance with State and Federal requirements, Jefferson Parish (Parish) has developed a Phase I compliant and community-specific Storm Water Management Program (SWMP). The Parish's SWMP includes Structural and Source Control Measures as required by 40 CFR 122.26(d)(2)(iv)(A) through 122.26(d)(2)(iv)(D) for Municipal Separate Storm Sewer Systems (MS4). This section outlines the Parish's procedures for structural controls inspection, maintenance, and documentation.

Jefferson Parish uses many programs to control discharges from its storm water collection system. These programs include structural controls and non-structural controls, such as source controls and operational stormwater control measures. Structural controls are used to increase the hydraulic capacity of the storm water drainage system. Non-structural controls address source control and elimination to reduce pollutants entering the storm water drainage system. Non-structural controls include periodic cleaning operations and monitoring programs.

1.2 Jefferson Parish Jurisdiction

The Parish is responsible for the design, construction and operation and maintenance of all storm water drainage canals and pump stations within the MS4 boundary except for canals within the City of Gretna. The city retained the responsibility for the operation and maintenance of all open drainage canals and ditches within its city limits. Additionally, Jefferson Parish is not responsible for subsurface drainage lines within the city limits for the incorporated cities of Gretna, Harahan, Kenner and Westwego.

1.3 Inspection and Maintenance

The Jefferson Parish Departments of Drainage and Streets ensure that the MS4 is operating properly in order to prevent flooding and minimize contaminated storm water runoff during rain events. Catch basins are cleaned during street sweeping activities. In addition, the Department of Drainage cleans catch basins from calls generated by citizens' complaints.

Parish personnel visually inspect all major drainage canals monthly. During these monthly inspections, Parish personnel identify canal bank failures due to shoulder erosion. The Department of Drainage normally maintains a 2:1 slope in all canal banks to prevent bank failure. Parish personnel repair collapsed banks with limestone and/or toe retention bulkhead. In addition, canal banks and shoulders are seeded to prevent erosion.

Dredging operations are conducted using long-reach backhoes and excavation equipment. Large canals are dredged by Parish contractors if they cannot be maintained with the Department of Drainage's equipment.

Vegetation control on canal banks is performed through a combination of mowing and herbicide application. The vegetative control method selected for use at a site is dependent upon the site accessibility, the amount of vegetation to be controlled, the length of the growing season, and available resources and personnel. The Department of Drainage uses in-house personnel and private contractors

to maintain canal banks within the Parish. The private contractor properly disposes of all collected debris and litter.

In addition to the routine bimonthly inspection, drainage canals are inspected following parades and special events (e.g. Mardi Gras, Saint Patrick's Day, etc.). During visual inspection, Parish personnel identify canal bank failures due to erosion and nutria damage, accumulated litter and undesirable vegetation.

The drainage pumping stations are equipped with coarse bar screens, or "trash racks," which protect the pumping equipment and provide a water quality benefit by removing floatables and other large debris prior to discharging into local waterways. The bar screens are cleaned either mechanically or manually to maintain adequate hydraulic conveyance through the screens. Debris from the screens is disposed of as solid waste at the landfill. Other Parish departments such as the Departments of Parkways and Streets provide additional assistance with bar screen cleaning at some pumping stations, especially in conjunction with storm events.

1.4 Recordkeeping

The Department of Drainage and the Department of Streets maintain a database documenting all maintenance activities conducted throughout the parish. The database is accessible to all department personnel and is available to LDEQ upon request.

1.5 Measurable Goals

SCM: Maintain drainage canals

Measurable Goal: The Department of Drainage will continue the following maintenance activities during each annual reporting year:

- Conduct monthly visual inspections of 100% of the canals – Inspections will be conducted by superintendents, cleaning crews and grass cutters performing maintenance activities
- Dredge 30,000 cubic yards of soil from canals to prevent silt accumulation and maintain hydraulic flow
- Repair, stabilize and reinforce failures caused by erosion or nutria damage along 15,000 linear feet of canal
- Maintain 30% of canal vegetation using herbicide application and 70% of canal vegetation using Parish or contract mowers
- Use concrete lining for slope stabilization in the canals – currently 13% of the canal system is concrete lined, another 1% will be lined in the next permit term
- Remove trash from canals after 100% of the parades/events held in the Parish

Justification: Maintaining the drainage canals reduces the risk of debris/pollutants from flowing to the drainage pump stations, and ultimately to receiving waters.

SCM: Maintain drainage facilities

Measurable Goal: The Department of Drainage and/or the Department of Streets will continue the following maintenance activities during each annual reporting year:

- Inspect, maintain and repair 4,000 linear feet of subsurface drainage lines and 1,500 catch basins, drop inlets and manholes
- Use vacuum trucks to clean 160,000 linear feet of subsurface drainage lines and 30,000 catch basins, drop inlets and manholes
- Remove trash from catch basins and inspect drainage facilities after 100% of the parades/events held in the Parish

Justification: Maintaining the drainage facilities will reduce the risk of clogs and failures in the facilities and ultimately reduce the risk of local flooding. This maintenance will also reduce the amount of floatables that enter the drainage system.

SCM: Reduce debris from entering receiving waters

Measurable Goal: The Department of Drainage will clean bar screens and remove 25 tons of floatables from the pumping stations.

Justification: Cleaning bar screens will prevent floatables from entering the receiving waters at the pump stations.

SCM: Provide Parish employees guidance on spill prevention and spill control

Measurable Goal: The Department of Drainage, with the assistance of the Department of Environmental Affairs, will maintain Spill, Prevention, Control and Countermeasure (SPCC) Plans and Storm Water Pollution Prevention Plans (SWPPP) at 100% of the Parish facilities with above-ground diesel storage greater than 1,320 gallons. Plans will be reviewed annually and updated once per permit term.

Justification: The SPCC Plans and SWPPPs will assist facility employees in storm water management and provide direction in the event of a spill to prevent or eliminate a pollutant from entering the MS4.

SECTION 2: POST-CONSTRUCTION STORM WATER MANAGEMENT FOR NEW DEVELOPMENT AND SIGNIFICANT REDEVELOPMENT

2.1 Program Description

Post-construction pollutant control in areas of new development and significant re-development will be achieved through controls such as land-use planning, source controls and treatment controls. Through a combination of these controls, the Parish is able to require and enforce changes in storm water management practices in higher risk commercial and industrial areas. The Parish's Comprehensive Zoning Ordinance and Unified Development Code prohibit hazardous, nuclear, or radioactive waste treatment and disposal facilities within the Parish and limit the location of potentially infectious biomedical waste treatment and disposal facilities.

The Jefferson Parish Planning Department reviews, evaluates, and makes recommendations concerning applications for the development or use of land that requires zoning changes, subdivision of parcels, special permits or site plan review along major corridors or within designated neighborhoods. The Planning Department also reviews sites for conformance with landscaping regulations and buffering requirements. The department's landscape architect provides technical expertise to the department in the review of current cases and in the writing of new code language. Newly constructed projects are inspected to ensure compliance with approved landscape plans. Existing sites along the Parish's major corridors are also inspected to enforce compliance with a site's approved landscape plan. Violations are issued, when warranted, to properties that are out of compliance. The landscape architect works with these property owners to bring the properties into compliance.

A Storm Water Management Advisory Committee was established in May 2016 to evaluate current parish codes, ordinances, and standards in regards to storm water, green infrastructure, and low impact development. The Jefferson Parish Council authorized the Committee to advise it on amending the Code of Ordinances for the following purposes:

- Developing a sustainable Jefferson Parish
- Reducing urban runoff
- Mitigating the effects of new development, redevelopment, or infill development on the existing drainage system
- Increasing compatibility between abutting land uses and between land uses and public rights-of-way
- Providing for the conservation of water resources
- Reducing the urban heat island effect
- Enhancing the local micro-climate
- Increasing species biodiversity
- Reducing consumption of energy by proper placement of shade trees and incorporating tree canopy concepts.

The Council also authorized the Planning Department and the Planning Advisory Board to conduct a text study of the chapters of the Code of Ordinances related to landscaping and buffering requirements (Resolution No. 123668), which promote purposes of sustainability, compatibility, and the enhancement of the public health, safety, and general welfare.

In August 2017, the Council adopted Ordinance No. 25405, which allows the Parish to begin to realize its goals related to low impact development and stormwater management. The ordinance included the following:

- Consolidation of existing landscaping and buffering regulations into the Unified Development Code to make landscaping standards more consistent between districts and land uses
- Update to standards to reflect stormwater control measures
- Establishment of regulations regarding permitting and incentives for certain aspects of low impact development

Green infrastructure and low impact practices will also be implemented in areas of new development and re-development, per the Green Infrastructure and Low Impact Development program (See Section 13). Amended codes and ordinances, design guidelines and training will assist in encouraging green infrastructure and promoting stormwater pollution prevention.

The Jefferson Parish Planning Department has developed the Integrated Green Infrastructure Strategy that guides Parish efforts for continued implementation of green infrastructure. This Plan was authorized by the Parish Council on February 6, 2019 by adopting Resolution 128317 and achieved the following goals:

- Evaluate existing stormwater management plans, policies, regulations and practices.
- Analyze stormwater data – rain volume, FEMA repetitive loss, soil typologies, etc.
- Assess parking and paving requirements.
- Review Stormwater control measures implemented by similar communities.
- Invite and integrate community insight and feedback into the Plan.
- Propose policies to encourage green infrastructure.

In February 2022, the Department of Environmental Affairs completed an Erosion and Sediment Control Regulatory Assessment of the Parish's existing codes and ordinances. The review and assessment resulted in recommendations to either refine the existing code of ordinances or add proposed measures to existing development guidelines, permitting procedures, or enforcement for the Parish's implementation of effective erosion and sedimentation control regulations. Upon the assessment's completion, the recommendations were integrated into the Green Infrastructure and Low Impact Development Program through the Green Infrastructure Plan.

2.2 Recordkeeping

The Planning Department maintains a database documenting all activities related to new development and redevelopment conducted throughout the parish. The database is accessible to all department personnel and is available to LDEQ upon request.

2.3 Measurable Goals

SCM: Verify that landscaping standards are being met at developments throughout the Parish

Measurable Goal: The Planning Department will require compliance with landscaping standards through site plan review and also by performing site inspections on 100% of the new development or redevelopment projects that require landscaping and are reviewed by the Planning Department.

Justification: Requiring compliance with landscaping requirements will ensure that developments are following approved landscaping plans and providing adequate measures for storm water management.

SCM: Encourage green infrastructure and low impact development in Parish codes

Measurable Goal: By the end of the permit term, the Parish will incorporate the recommendations found in the Integrated Green Infrastructure Plan's audit of the codes which impede green infrastructure and low impact development.

Justification: Revising the current codes will allow and encourage more developers to use green infrastructure facilities, which will ultimately decrease stormwater runoff rates and increase water quality in the MS4.

SCM: Provide green infrastructure design guidelines to developers

Measurable Goal: The Parish will compile a packet with green infrastructure/low impact design guidelines that will be made available to developers and persons requesting a building permit. These guidelines will be complete by the end of the permit term.

Justification: Providing guidelines for green infrastructure will provide minimum requirements, as approved by the Parish, and provide developers with a resource of the approved facilities that could be implemented in their design.

SECTION 3: ROADWAYS

3.1 Program Description

This Roadway Maintenance Program (RMP) has been prepared in accordance with the National Pollutant Discharge Elimination System (NPDES) Permit requirements. This RMP summarizes Jefferson Parish's operations and maintenance policies and procedures to reduce the discharge of pollutants to waters of the United States from its roadway system. This section provides background information on the regulatory aspects of controlling storm water pollution while covering the general requirements of the Parish's NPDES Permit.

3.2 Purpose

The RMP was prepared to identify and describe the actions Jefferson Parish takes to reduce the discharge of pollutants to the MS4 from its roadway system. The major objectives of Jefferson Parish's RMP are to:

1. Conduct structural repairs to maintain the street paving and to avoid pavement debris and sediment from entering the drainage system
2. Conduct periodic cleaning activities for catch basins and drop inlets
3. Conduct street sweeping to enhance source control and elimination
4. Control vegetation within street right-of-ways, roadsides and medians

The practices included in this program include administrative actions such as reporting and ordinance control; non-structural controls such as street sweeping and catch basins maintenance; and structural alternatives such as vegetative medians and roadsides that serve as filters for storm water prior to entering the collection system.

3.3 Jefferson Parish Jurisdiction

Jefferson Parish is responsible for the design, construction, and operation and maintenance of the majority of roadways within the MS4 boundary. The Parish is not responsible for the operation and maintenance of the roadway system within city limits for the incorporated cities of Gretna, Harahan, Kenner and Westwego. All State and Federal Highways within Jefferson Parish are operated and maintained by the Louisiana Department of Transportation and Development (LDOTD). During emergency situations, such as flooding and hurricanes, Parish personnel may assist incorporated cities during cleanup activities and restoration.

3.4 Maintenance Practices and Procedures

The Department of Streets is responsible for the maintenance of the streets throughout unincorporated Jefferson Parish. The Department of Streets cleans catch basins, drop inlets, and pipes up to 24 inches in diameter (any drainage pipe larger than 24 inches in diameter is maintained by the Department of Drainage) to reduce pollutant runoff and improve hydraulic capacity of the drainage system. The Parish utilizes vacuum trucks to remove accumulated debris. Collected debris is properly disposed of at a permitted disposal facility.

Jefferson Parish relies on citizen participation through reporting "problem areas" where trash and debris accumulate. Citizen complaints associated with street maintenance problems are investigated and corrected by the Department of Streets. These investigations serve to identify problem areas and facilitate the expedient scheduling and implementation of corrective actions, such as litter collection and removal accumulated on Parish-owned vacant lots. Upon notification from a citizen complaint, or a Parish inspection, the Department dispatches a cleaning crew to remove the litter or debris.

During street repairs, the Department follows stormwater control measures to protect storm water quality. For example, in wet weather, the crews will pour cold mix to temporarily fix pot holes and wait until dry weather for a permanent repair. Potholes in roads are repaired on an as needed basis.

3.5 Street Sweeping

The Department of Parkways performs street sweeping and administers street sweeping contracts throughout unincorporated Jefferson Parish. The Department provides street sweeping and litter collection on the roadside and in street medians to reduce pollutant loadings to receiving waters.

A private contractor provides street sweeping services during special events such as Mardi Gras. Such immediate cleaning practices help reduce the pollutant loading into the open channel storm water collection system. The selected private contractor also assists during cleanup operations immediately following each special event (e.g. parades). The Department of Parkways performs street sweeping services throughout the remainder of the year.

Many streets within Jefferson Parish have been classified as primary and secondary streets based on sweeping frequency. Primary streets are cleaned either weekly or biweekly, while secondary streets are cleaned biweekly to monthly. All collected trash and debris is properly disposed of at permitted disposal facility. Jefferson Parish's personnel from the Department of Parkways perform inspections after street cleanup operations by the private contractor.

3.6 Vegetation Control

The Department of Parkways' primary objective is the maintenance of green areas located along the roadside and medians. Vegetative cover minimizes erosion and serves as a filter for pollutants that would otherwise enter the storm water drainage system. The Department operates in a two-week rotation for all green areas within Jefferson Parish. However, during summer months, the maintenance schedule is increased to three times per month.

The Department of Parkways uses in-house personnel and private contractors to maintain medians and roadside areas within Jefferson Parish. Jefferson Parish currently maintains approximately ninety-two million square feet of vegetative areas. Jefferson Parish selects a private contractor to assist the Department of Parkways to control vegetation. The private contractor conducts grass cutting and litter collection in more visible areas for aesthetic reasons. The private contractor properly disposes of all collected debris and litter.

3.7 Deicing Activities

Roadways in the southern part of the State of Louisiana have very little need for deicing. Therefore, deicing and sanding activities are not common practices in Jefferson Parish. Deicing activities are predominantly conducted on either state or federal highways at overpasses and bridges. Deicing

procedures on these roadways are the responsibility of the Louisiana Department of Transportation and Development (LDOTD).

3.8 Recordkeeping

The Department of Drainage and the Department of Streets maintain a database documenting all roadway maintenance activities conducted throughout the Parish. The Department of Environmental Affairs maintains a database documenting spills that pose an exposure risk to the storm drain system. The databases are accessible to all department personnel and available to LDEQ upon request.

3.9 Measurable Goals

SCM: Maintain drainage facilities

Measurable Goal: The Department of Drainage and/or the Department of Streets will continue the following maintenance activities during each annual reporting year:

- Inspect, maintain and repair 4,000 linear feet of subsurface drainage lines and 1,500 catch basins, drop inlets and manholes
- Use vacuum trucks to clean 160,000 linear feet of subsurface drainage lines and 30,000 catch basins, drop inlets and manholes
- Remove trash from catch basins and inspect drainage facilities after 100% of the parades/events held in the Parish

Justification: Maintaining the drainage facilities will reduce the risk of clogs and failures in the facilities, ultimately reducing the risk of local flooding, and will also reduce the amount of floatables that enter the drainage system.

SCM: Maintain Parish streets

Measurable Goal: The Department of Parkways and/or the Department of Streets will continue the following maintenance activities during each annual reporting year:

- Maintain 90% of the vegetative area along roadside and medians using mowers and 10% of the vegetative area along roadside and medians using herbicide application
- Oversee the street sweeping program, including administering the street sweeping contract for primary and secondary streets – At minimum, primary streets will be swept biweekly and secondary streets will be swept monthly.
- Clean streets after 100% of the parades/events held in the Parish
- Repair or replace a minimum of 220 square yards of damaged concrete roadway
- Patch or replace a minimum of 95,000 square yards of damaged asphalt roadway

Justification: Maintaining streets will reduce the amount of sediment and floatables that enter the drainage system.

SCM: Respond promptly to incidents that pose a risk to the drainage system

Measurable Goal: The Department of Environmental Affairs, the Department of Streets and the Fire Department Hazardous Materials Unit will respond to 100% of the hazardous materials incidents that pose an exposure risk to the storm drain system. Clean-up efforts will be conducted as required in the Parish's Spill Prevention and Response Program (see Section 7).

Justification: Quick response and effort will reduce, prevent or eliminate pollutants from entering the drainage system.

SECTION 4: FLOOD CONTROL PROJECTS

4.1 Program Description

The Department of Drainage assesses impacts on receiving water quality for all flood management projects. This process includes preparing a report to evaluate the feasibility of retrofitting existing structural flood control devices to provide additional pollutant removal from storm water.

The Parish is required by their NPDES permit to submit a summary report of evaluations conducted for existing flood control devices to determine the feasibility of retrofitting to benefit water quality. Additional information about this program can be found in the attached Report Evaluating the Feasibility of Retrofitting Existing Flood Control Devices to Improve Water Quality (see Appendix B). This report was submitted to the LDEQ on June 1, 2001, in compliance with the Parish's original LPDES discharge permit (LPDES Permit No. LAS000201). The report describes the existing flood control devices, identifies agencies responsible for the construction and maintenance of those devices, summarizes potential retrofits, and addresses the feasibility of implementing those retrofits within the MS4.

A number of technical criteria are currently reviewed in the assessment of flood control projects. Not all of these are directly intended to address water quality impacts. However, a system of interagency reviews is currently in place to assess and document the anticipated post-construction water quality impacts from flood control projects. Technical criteria include: water quality, sediment quality, and ecosystem productivity for naturally occurring flora and fauna. Each of these criteria represents a major heading for numerous sub-groups of technical criteria that also relate to water quality.

Projects implementing green infrastructure practices will also be included in the assessment of flood control projects, as they may also have an impact on water quality, with decreased stormwater run-off.

4.2 New Flood Control Projects

Flood control projects are defined as projects occurring within the main transmission conduits, open or closed, and the associated drainage pumping stations. Changes are made to the drainage system by the Parish in response to, or in preparation for, flood related hydraulic design criteria. Based on the performance of the drainage system as a whole, the projects which increase the capacity of either the canals or the pumping stations will reduce flooding. Projects using green infrastructure practices will also aid in flood control, as decreased runoff rates will reduce the flooding potential. Therefore, the use of green infrastructure and low impact development will be encouraged. Additionally, these projects may affect the receiving waters of the MS4 and therefore should be assessed for potential water quality impacts.

4.3 Historical and Future Projects

An inventory of flood control projects was performed in the Parish to assess current projects and find future opportunities for flood control. This process also outlined the path a project takes within the Parish from conception to construction. The intent of this section is to review the current and potential flood control projects and the mechanisms through which these projects are completed so that an assessment of how water quality impacts are considered could be made.

Flood control projects undertaken solely by the Parish began in 1991 with a 53 million dollar bond issue. These projects included pumping station upgrades and construction. Projects funded under this bond issue are completed and in service at this time.

All major flood control projects constructed by the US Army Corps of Engineers (USACE) under the Southeast Louisiana Urban Flood Control Program (SELA), a program administered under a cooperative agreement with the USACE, was completed in Jefferson Parish in 2017. Planning, design and construction of flood control projects were subject to permitting by the USACE under Section 404 of the Clean Water Act (CWA) and by the Louisiana Department of Natural Resources, Coastal Zone Management Division. The numerous projects constructed under this program included canal widening, canal lining and pumping station capacity increases. All projects were jointly managed by the USACE and the Parish.

4.4 Projects Performed by the East and West Jefferson Levee Districts

The East and West Jefferson Levee Districts (EJLD and WJLD, respectively, or Districts, collectively) operate as autonomous agencies created by the Legislature of the State of Louisiana. The Levee Districts operate under the authority of the Southeast Louisiana Flood Protection Authority-East (SLFPA-E) and Southeast Louisiana Flood Protection Authority-West (SLFPA-W), respectively. The Districts were created to improve, operate and maintain the levee systems that encircle the MS4 service area. The Districts are funded by local Ad-Valorem taxes, which are used as the local matching portion in a cooperative agreement with the USACE.

4.5 Private Flood Management Controls

The Parish requires developers to comply with Jefferson Parish Code of Ordinances regarding private flood management controls. Regulations governing storm water run-off detention are found in the Jefferson Parish Unified Development Code and state the following:

> For all proposed developments, other than single-family residential, totaling ten thousand (10,000) square feet or more (all phases), and all single-family residential developments totaling five (5) acres or more (all phases), the ten (10) year storm event post-development rate of run-off shall not exceed the ten (10) year storm event pre-development rate of run-off. To insure that the post-development rate of run-off does not exceed the pre-development rate of run-off, on site detention will be required in a manner approved by the Jefferson Parish Public Works Department. The detention system cannot release water from the site at a rate greater than the pre-development rate of run-off.

Developers will be encouraged to implement green infrastructure practices. This will aid in meeting the run-off requirements stated above and reduce flooding potentials caused by development.

4.6 Recordkeeping

The Department of Drainage maintains a database documenting maintenance activities conducted throughout the Parish. The Department of Engineering maintains a database documenting building permit applications and site plan reviews. The databases are accessible to all department personnel and available to LDEQ upon request.

4.7 Measurable Goals

SCM: Verify that storm water run-off requirements are being met at projects throughout the Parish

Measurable Goal: The Department of Engineering will require compliance with ordinances that address storm water run-off detention by reviewing 100% of the site plans submitted with a building permit application.

Justification: Requiring compliance with storm water run-off detention requirements will ensure that adequate measures for storm water management are being implemented into each project, which will ultimately reduce the risk of flooding caused by new development.

SCM: Encourage green infrastructure and low impact development practices

Measurable Goal: The Department of Engineering will encourage the implementation of green infrastructure and low impact development practices. Educational materials and/or design guidelines will be made available to 100% of the developers or persons proposing to construct a project that requires a site plan, upon the implementation of the recommendations from the Green Infrastructure and Low Impact Development Program (see Section 13) within the permit term.

Justification: Implementing green infrastructure and low impact development practices into projects will assist in storm water management and ultimately reduce the potential for flooding due to development.

SCM: Maintain drainage canals and facilities

Measurable Goal: The Department of Drainage will continue the following maintenance activities during each annual reporting year:

- Conduct monthly visual inspections of 100% of the canals – Inspections will be conducted by superintendents, cleaning crews and grass cutters performing maintenance activities
- Dredge 30,000 cubic yards of soil from canals to prevent silt accumulation and maintain hydraulic flow
- Repair, stabilize and reinforce failures caused by erosion or nutria damage along 15,000 linear feet of canal
- Maintain 30% of canal vegetation using herbicide application and 70% of canal vegetation using Parish or contract mowers
- Use concrete lining for slope stabilization in the canals – currently 13% of the canal system is concrete lined, another 1% will be lined in the next permit term
- Inspect, maintain and repair 4,000 linear feet of subsurface drainage lines and 1,500 catch basins, drop inlets and manholes
- Use vacuum trucks to clean 160,000 linear feet of subsurface drainage lines and 30,000 catch basins, drop inlets and manholes
- Remove trash from canals after 100% of the parades/events held in the Parish

Justification: Conducting the maintenance activities listed above will maintain the hydraulic capacity of the canals and pipes, which will reduce the potential for flooding.

SECTION 5: PESTICIDE, HERBICIDE AND FERTILIZER APPLICATION

5.1 Program Description

The Pesticide, Herbicide and Fertilizer (PHF) Program was prepared to identify and describe practices and operating procedures employed by Jefferson Parish to minimize the discharge of pollutants to the MS4 from the storage and application of pesticides, herbicides and fertilizers.

5.2 Jefferson Parish Jurisdiction

Jefferson Parish is responsible for vegetation control within the MS4 boundary. However, the Parish is not responsible for vegetation control on streets within the city limits for the incorporated cities of Gretna, Harahan, Kenner, and Westwego. The Parish is responsible for vegetation control on all canals throughout the MS4, including the cities. Furthermore, the Louisiana Department of Transportation and Development (LDOTD) is responsible for vegetation control on State and Federal Highways.

5.3 Operations, Maintenance and Inspections

Under the Parish PHF Program, herbicide application is normally conducted in areas not accessible by mechanical equipment, during extreme growing seasons, and where there is a shortage of resources and/or personnel to mow. Departments that use herbicides follow all applicable state and federal regulations, and each department has a specialist certified by the Louisiana Department of Agriculture and Forestry. The following departments are involved, either directly or indirectly, in the maintenance of parks, recreational areas and green areas in streets, medians and drainage canals:

1. Department of Parks and Recreation
2. Department of Parkways
3. Department of Drainage
4. Department of Environmental Affairs

The Department of Parks and Recreation operates and maintains recreational parks and playgrounds in the Parish. Operational practices include litter control, vegetation control and general maintenance at each park and playground. Approximately 15% to 20% of its green spaces are maintained with herbicides and the remainder is maintained by mechanical cutting.

The Department of Parkways maintains green areas located on medians and along roadsides. Vegetative cover minimizes erosion and serves as filtration for pollutants that would otherwise enter the storm drainage system. The Department of Parkways maintains 10% of these green spaces with herbicides, and the remainder is maintained by mechanical cutting. Herbicide spraying is performed around light poles, signposts, and small areas that cannot be mechanically cut.

The Department of Drainage is the leading department for operation and maintenance of the storm water collection system. The Department of Drainage is also responsible for vegetation control within open drainage canals, including bottoms, slopes, and right-of-ways. Vegetation growth within the drainage canals is controlled to allow for maximum water flow. Herbicide spraying is performed along the canals periodically throughout the year in conjunction with cutting. Most of the spraying is performed by contractors.

The Department of Environmental Affairs inspects Parish employees and contracted spray crews to evaluate operational stormwater control measures and ensure compliance with applicable regulations. The inspectors are certified as herbicide applicators and perform inspections in the following categories: Aquatic Pest Control, Right-Of-Way and Pest, Mosquito Control Applicator, and General Standards. Department of Environmental Affairs personnel are certified by the Louisiana Department of Agriculture for chemical applications (e.g. pesticides) and attend a refresher course every 3 years.

Inspections are conducted periodically on applications to Parish property during the spraying season and are recorded on a Pesticide Application Inspection Report Form (see Appendix A). Any issues noted by the inspector are highlighted for further action before filing the reports. When problems are noted, they are reported to the applicator's supervisor and/or the Louisiana Department of Agriculture and Forestry for corrective action. If a complaint concerning an application on private property is reported, the Department of Environmental Affairs works in conjunction with the Louisiana Department of Agriculture and Forestry to investigate the complaint. The Department of Agriculture and Forestry also performs random inspections of both public and private applications.

5.4 PHF Storage

All chemicals are stored indoors under lock and key. Storage facilities are ventilated and have the proper lighting for safe personnel movement. All Parish pesticide/herbicide storage facilities are operated in accordance with the Louisiana Department of Agriculture and Forestry regulations. Departments that use PHFs order quantities of new chemicals that can be used by the end of the spraying season to minimize long-term storage. Jefferson Parish personnel store herbicide products in their original containers, sealed tightly. However, if small volumes of chemical must be placed in a separate container, personnel take precautions to place them in compatible containers so that the ability of the container to store the material is not compromised. All containers are washed, triple rinsed, and split prior to disposal.

Personnel using PHFs carefully read and understand label directions before application, because product labels provide instructions for all phases of use. Chemicals are not applied at higher rates than recommended by the manufacturer. All containers have a label that contains the following information:

1. Label information required by the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), if a pesticide is subject to registration under law
2. Accepted common name
3. Name and percentage by weight of each active ingredient
4. Directions for use, such as application rates and methods
5. Cleanup, storage, and disposal instructions

5.5 PHF Application

Successful weed control requires application of the correct amount of herbicides uniformly over a targeted area. Jefferson Parish personnel are instructed to closely follow application rates, as suggested by the manufacturer and take into account wind conditions to avoid "off target" damage to private property. As such, herbicides are not applied when wind velocities exceed ten miles per hour (10 mph). Conventional hoses and handguns are generally utilized to spray herbicides in areas with high traffic volumes. Truck-mounted spray systems may be used in more secluded areas. The potential for herbicide movement in surface water runoff to storm water is also considered prior to application.

Jefferson Parish personnel evaluate weather conditions to allow a minimum of eight hours between a spray event and a forecasted rain event.

In addition to herbicide application for unwanted vegetation control, airborne pesticides are sprayed for mosquito control on all Parish roads, including roads within the cities, during the mosquito season and rodenticides are used around the canals. Aerial spraying of pesticides to control mosquitoes is also performed when necessary. These pesticide applications are performed by contractors certified in pesticide application in accordance with the Louisiana Department of Agriculture and Forestry regulations.

Fertilizers are not typically used on public right of ways, parks, and other municipal property. The local climate and soil conditions are such that desirable vegetation grows quite easily without artificial nutrition.

5.6 PHF Disposal Practices

Departments that use PHFs order quantities of new chemicals that can be used by the end of the spraying season to minimize long-term storage. All Parish pesticide/herbicide storage facilities are operated in accordance with the Louisiana Department of Agriculture and Forestry regulations. Empty containers are triple rinsed and properly disposed of as recommended by the manufacturer. Rinsate is placed in the spray tank at the time of mixing to be applied at the next location being sprayed.

5.7 Personnel Training and Certification

Jefferson Parish participates in the State of Louisiana Department of Agriculture and Forestry's program for certifying pesticide and herbicide applicators. The Department of Agriculture and Forestry requires commercial pesticide and herbicide applicators to be certified prior to engaging in pesticide or herbicide activities. This certification course, provided annually by the Department of Agriculture and Forestry, includes a general application class and a specific training class for the particular pesticide or herbicide application being certified as well as training in the safe and proper handling, storage and disposal of these chemicals. After successfully completing the training class and passing the course examinations, the applicant is issued a license and certification card appropriate to the training received.

The license is valid for three years from the date of testing for the category certified. A refresher training course is mandatory every three years to renew the license. If these requirements are not met, the applicator or inspector will lose the certification and will be required to repeat the training and examination process.

5.8 Recordkeeping

The Department of Environmental Affairs maintains a database documenting PHF inspection activities. Each Parish department that utilizes PHFs maintains a database documenting application activities. The databases are accessible to all department personnel and available to LDEQ upon request.

5.9 Measurable Goals

SCM: Monitor PHF applications throughout the Parish

Measurable Goal: The Department of Environmental Affairs will conduct a minimum of two (2) PHF inspections each year of the permit term. Inspections will be on the operations of commercial PHF

applicators and the Public Works Department personnel who apply PHFs to roadsides, right-of-ways and Parish drainage canals.

Justification: These inspections will verify that proper PHF application methods are being used that will reduce the risk of storm water pollution.

SCM: Provide training for the use of PHFs

Measurable Goal: The Department of Environmental Affairs will maintain current PHF license(s) for the two (2) Parish employees that are currently licensed. These licensed employees will take a refresher training course every three (3) years to renew the license.

Justification: Ensuring that employees are properly trained and certified in the use of PHFs will assist in the storm water pollution prevention, as these employees will have learned the proper techniques for PHF storage, application and disposal.

SCM: Provide education on the use of PHFs

Measurable Goal: The Department of Environmental Affairs will conduct one (1) annual training to Parish employees about the use of PHFs.

Justification: Educating employees about the importance of proper PHF use and the impact PHFs can have on water quality will assist in the prevention of pollutants entering the MS4.

SECTION 6: ILLICIT DISCHARGES AND IMPROPER DISPOSAL

6.1 Program Description

The Illicit Discharges and Improper Disposal Program was prepared to identify and describe practices and operating procedures employed by Jefferson Parish to identify, remove and prevent illicit discharges in the Parish drainage system.

6.2 Source Identification

The Department of Drainage performs system maintenance activities on a daily basis and as a result, visually screens the entire MS4 periodically. If dry weather flow is noted in the system, it is reported to the Department of Environmental Affairs by Parish personnel or the public, and it is investigated immediately in an attempt to locate the source and correct the problem. By combining Parish employee notifications with the citizen reporting system, the dry weather screening system has become an effective way of identifying potential pollutants in the storm drainage system.

The Department of Environmental Affairs conducts a dry weather screening program at outfalls in the open canal system to identify suspected illicit discharges, illegal connections and improper disposal. Additional information about this program can be found in Section 11.

6.3 Investigation

Jefferson Parish uses its legal power to create, adopt and implement ordinances to control discharges into the MS4. These ordinances make discharging pollutants to the MS4 illegal and punishable by law. Specifically, Section 16-9.2 of the Jefferson Parish Code of Ordinances prohibits littering and dumping of any debris, trash or garbage into any drainage canals ditches or drainage catch basins. When a responsible party cannot be identified, litter and trash accumulated within the storm water collection system is removed and properly disposed of by Parish personnel during inspections of the MS4, and in response to complaints.

The Department of Environmental Affairs responds to a wide range of citizen complaints that could impact storm water quality including sanitary sewerage concerns, air pollution, hazardous materials, fish kills, noxious odors, oil spills, medical waste disposal, dumpsters and illegal dumping. Complaints are investigated by environmental quality specialists and technicians and documented through complaint forms. If necessary, field sampling is conducted at the complaint location to confirm an illicit discharge. Sample analysis is dependent upon the nature of the complaint and suspected pollutants. Most complaints are resolved by educating the resident or business about proper disposal methods and by marking the storm drains in the area. However, several ordinances prohibit the disposal of wastes into the MS4 and investigators can also issue Notices of Violation as enforcement actions. If the violations are not corrected, the offender will be sent to Administrative Adjudication where fines may be imposed.

Depending on the type of complaint, the Department of Environmental Affairs can work with other agencies to reach a resolution. For example, the Louisiana Department of Environmental Quality (LDEQ) can analyze sampling results and impose fines to violators. In these situations, industrial and commercial entities under investigation are given approximately thirty days to eliminate the illicit

discharge, obtain a Louisiana Pollutant Discharge Elimination System (LPDES) permit, or reroute the non-storm water discharge to the sanitary sewerage system.

6.4 Recordkeeping

The Department of Environmental Affairs maintains a database documenting all reported illicit discharges that occur within Jefferson Parish jurisdiction. The database is accessible to all department personnel and is available to LDEQ upon request.

6.5 Measurable Goals

SCM: Respond promptly to complaints of illicit discharge or improper disposal

Measurable Goal: The Department of Environmental Affairs will conduct an investigation on 100% of the complaints of illicit discharge or improper disposal. If an illicit discharge or improper disposal is verified, it will be removed, and violations will be issued as warranted.

Justification: Responding to all complaints of illicit discharge or improper disposal will insure that the incident is remedied in a timely manner and will prevent the discharge from entering receiving waters.

SCM: Monitor drainage canals for illicit discharges

Measurable Goal: The Department of Environmental Affairs will conduct the following screenings in each year of the permit term:

- Windshield screening during dry weather to identify evidence of dry weather discharges into open drainage canals – screening will be conducted at 20% of the of the major outfalls (pipes with an inside diameter of 24 inches or more, or its equivalent). The Department of Streets and the Department of Drainage will assist in these dry weather screenings, as well, by visually inspecting canals during maintenance activities.
- Windshield screening during wet weather to identify evidence of wet weather discharges into open drainage canals – screening will be conducted at 20% of the of the major outfalls (pipes with an inside diameter of 24 inches or more, or its equivalent)

Justification: Screening drainage canals during dry and wet weather will assist the Parish in determining if, and where, there are illicit discharges entering the drainage system and provide the opportunity to remedy the illicit discharge before it flows to a pumping station and ultimately to receiving waters.

SCM: Provide hazardous waste collection services to Parish residents

Measurable Goal: The Parish will provide the following services to Parish residents:

- Collection of used automotive vehicle fluids at the two (2) Citizen's Trash Drop-Off sites, which are open Tuesday through Sunday from 9:00am to 5:30pm
- Collection of used automotive batteries at the two (2) Citizen's Trash Drop-Off sites, which are open Tuesday through Sunday from 9:00am to 5:30pm

- Collection of used cooking oil at the two (2) Citizen's Trash Drop-Off sites, which are open Tuesday through Sunday from 9:00am to 5:30pm
- Collection of electronic waste at the two (2) Citizen's Trash Drop-Off sites, which are open Tuesday through Sunday from 9:00am to 5:30pm
- Collection of household hazardous waste (HHW) at a HHW Collection Day, to be hosted at a minimum once per year

Justification: Providing a place for residents to dispose of hazardous waste will prevent this waste from being improperly disposed of at a landfill or at another location (roadside, yard, etc.) that may ultimately pollute storm water.

SECTION 7: SPILL PREVENTION AND RESPONSE

7.1 Program Description

Jefferson Parish facilities and departments engage in spill prevention by implementing administrative, structural and non-structural stormwater control measures (SCMs). For many Parish facilities including wastewater treatment plants, water treatment plants, trash drop-off and recycling centers, landfills, drainage pump stations, and vehicle maintenance facilities, the guidelines for the development and implementation of such SCMs are provided in Spill Prevention, Control and Countermeasure (SPCC) Plans and Storm Water Pollution Prevention Plans (SWPPP). The Department of Environmental Affairs initiates and reviews all updates to SWPPPs and SPCC Plans for Parish facilities. The department also identifies facilities that require new plans and manages plan development.

The Parish's spill prevention program also includes industrial facility inspections to ensure private, permitted facilities have met permitting mandates for secondary containment, SWPPP and SPCC Plans.

7.2 Spill Prevention, Control and Countermeasure (SPCC) Plans

In accordance with federal and state regulations (40 CFR 112 and LAC 33:IX.9), all Parish facilities that store an aggregate of 1,320 gallons or more of oil or other petroleum products have an SPCC Plan. This plan establishes the requirements for contingency planning and implementation of operating procedures and stormwater control measures to prevent unauthorized discharges (spills) of oil and hazardous substances into waters of the United States and to control such discharges, should they occur, to minimize the effects on the environment. The SPCC plans are updated whenever there is a significant change in the materials storage and handling practices, or in the quantities or types of petroleum products stored, or at a minimum of once every five years.

7.3 Storm Water Pollution Prevention Plans (SWPPP)

A SWPPP is developed for all Jefferson Parish facilities that require coverage under the LPDES Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activities (Permit No. LAR050000). To reinforce good storm water management practices, an SWPPP is also developed for other parish facilities that are deemed appropriate by the Department of Environmental Affairs. A SWPPP describes the various actions a facility will undertake in order to prevent the contamination of storm water runoff. The SWPPP helps identify sources of pollution that may impact storm water quality and ensures the implementation of practices to reduce pollutants in storm water discharges.

One of the most important factors in developing the SWPPP is the evaluation of alternatives available to a facility to control the contamination of storm water. These alternatives might include administrative actions such as employee training or reporting and inspection procedures; non-structural controls such as sweeping and other good housekeeping practices; or structural alternatives such as secondary containment areas and storm water detention ponds. In order to develop the most cost-effective plan, the various alternatives must be considered for facilities individually, tailoring the facility SWPPP to the needs and requirements of the individual site.

7.4 Large Spill Response

A spill is considered large if it is greater than the reportable quantity per DEQ (quantity varies by pollutant). Spills of hazardous materials, tanker accidents resulting in spills, and spills from bulk storage containers are part of this category. The majority of the time, the public will report these types of spills through 911. All spills reported to 911 are directed to the Hazardous Materials Unit (HazMat) of the East Bank Fire Department for response and protection of public health and safety by containing and removing the spilled material. While the HazMat Unit of the Fire Department will take the lead, other agencies may be involved in the spill response process. If the spill enters the MS4, Environmental Affairs will be contacted to oversee the cleanup. Large or hazardous spills are referred to the Louisiana State Police (225-925-6595) and the Local Emergency Planning Committee (LEPC).

It is difficult to write a procedure to cover all field scenarios that may exist and that consider variables such as site drainage, topography, risk to life and property, nature of hazardous materials, and provide predetermined written conclusions as to the best courses of containment action. However, the HazMat Unit and Department of Environmental Affairs have personnel that are state certified annually at either the technical or professional level. Responders are trained in spill response measures, which involve containing the spill and enacting spill cleanup measures. Additionally, Department of Environmental Affairs' personnel act as first response contacts and containment cleanup advisors for incidents involving hazardous materials that pose an exposure risk to any sewerage, drainage, or water lines. If the spills are on public property, the Haz Mat Unit and Department of Environmental Affairs have a contractor to contain and clean up the spill.

7.5 Small Spill Response

The Small Spills category covers oil spills from vehicles, spills from small containers no larger than the reportable quantity per DEQ (quantity varies by pollutant), and other spills that have not been identified under the definition of large spills. Most spills under this category are associated with citizen complaints, commercial activities or industrial activities.

When a spill is reported through the 911 system or by a citizen, it is investigated immediately. The investigator identifies the source of the spill by tracing potential discharge pathways and interviewing available witnesses. If the source is located, the responsible party is required to clean the spill up immediately. If the source is located, enforcement action will be taken against the responsible party in accordance with Jefferson Parish Municipal Code Chapter 16, Article I, Sec 16-9.2: Dumping in catch basins, etc. (see Appendix C). In the case of non-compliance or when the responsible party cannot be identified, the Parish uses a spill cleanup contractor to contain the spill. The Parish contract stipulates that the contractor must respond to a spill within one hour of notification with the appropriate equipment for containing and cleaning the spill.

In the event a spilled material enters the underground storm water collection system, the Department of Drainage assists the Department of Environmental Affairs to locate the outfall location within the open drainage system for containment and cleanup. The design of the drainage system allows spills to be contained and held in the canals when it is not raining; thereby, preventing the material from reaching the receiving waters. The drainage pump stations operate independently of each other; thus, allowing a pump to run at a different station, if one station is affected by a spill. These pumps can also be used to move the water to a location where it can easily be removed from the drainage system. Temporary earthen dams can also be constructed to contain the material. For chronic overflow sites, the Department of Sewerage implements capital improvement projects as funds allow to increase the capacity of the system.

7.6 Sanitary Sewer Overflow Prevention and Response

This category covers overflows from the sanitary sewer system, including ruptured sanitary sewer lines, which are the responsibility of the Department of Sewerage. The Department has established a comprehensive program to prevent and respond to dry and wet weather sanitary sewer overflows. All sewer lines are visually inspected routinely by Department employees and all sewerage lift stations are inspected daily. The station operators follow a preventative maintenance program that includes mechanical and electrical repairs when needed. Additionally, the Department performs repairs, routine maintenance, and preventative measures on the sewer gravity lines and force mains. A contractor is used for the scheduled long-term sewer line rehabilitation program.

A Supervisory Control and Data Acquisition (SCADA) system is used for responding to and eliminating unforeseen overflows from many of the Parish's sewage lift stations. The SCADA system provides the control operator or dispatcher with detailed information about pump activity, wet well activity, and discrete alarms. Discrete alarms include air compressor, station security, water collection in the dry well, and high ball float. Having access to the current performance of each station allows operators and dispatchers to manage or respond quickly to overflow events.

Procedures for sanitary sewer spill containment are specific to the nature of the spill. For spills from gravity flow mains, the most effective and time responsive method of containing a spill is to rectify the cause. The majority of spills are caused by blockages such as grease or tree root intrusion, which can be fixed relatively quickly following the arrival of a repair crew to the scene of the overflow. Implementation of containment, where it is possible, would often take longer than the repair itself. As such, energy is often focused on the repair.

7.7 Recordkeeping

The Department of Environmental Affairs maintains a database documenting all reported spills that enter the MS4. The database is accessible to all department personnel and is available to LDEQ upon request.

7.8 Measurable Goals

SCM: Verify that spill response plans are in place at industrial and Parish facilities

Measurable Goal: Once per permit term, the Department of Environmental Affairs will conduct inspections at 20% of the industrial facilities in accordance with the Industrial & High Risk Program (see Section 8) and at Parish facilities in accordance with the Good Housekeeping Program (see Section 12).

Justification: These inspections will verify that facilities are in compliance with the SWPPP and SPCC Plans and have plans in place in the event of a spill.

SCM: Clean up spills as soon as possible

Measurable Goal: The Department of Environmental Affairs will respond to 100% of spill reports and coordinate with Jefferson Parish Sheriff's Office, Louisiana State Police, LDEQ, Fire Department, the HazMat Unit, or other entities when necessary for spill cleanup. The Parish Emergency Response contractor will cleanup spills where the responsible party cannot be located or does not cooperate, or spills that occur at Parish facilities.

Justification: Quick response to the report of a spill will reduce the risk of the spill reaching the MS4.

SCM: Provide education about the importance of spill response

Measurable Goal: The Department of Environmental Affairs will conduct 1 annual training session to Parish employees about spill prevention and spill handling practices.

Justification: Educating employees about spill response will reduce the potential for spills and assist in the prevention of spills entering the MS4.

SECTION 8: INDUSTRIAL AND HIGH RISK RUNOFF

8.1 Program Description

The Industrial and High Risk (I&HR) Inspection Program is designed to identify and control pollutants in storm water discharges to the MS4 from industrial and high risk facilities. Program elements include priorities and procedures for inspection activities and monitoring, and maintenance of a list of industrial storm water dischargers to the MS4.

8.2 Jefferson Parish Jurisdiction

Jefferson Parish is responsible for all industrial discharges to the MS4 within the unincorporated areas of the Parish. However, Jefferson Parish is not responsible for industrial discharges within the incorporated cities of Gretna, Harahan, Kenner and Westwego.

8.3 Process Used to Develop Current List

The following databases were used to properly identify potential I&HR facilities discharging to Jefferson Parish's MS4 and to develop the current list of I&HR facilities subject to inspection:

- List of Toxic Release Inventory (TRI) facilities. The list of facilities was provided by the Louisiana Environmental Protection Agency for the reporting year 2018 (the most current available at the time).
- The Louisiana Department of Environmental Quality (LDEQ) database provided information for facilities with the following permits:
  1. Storm Water General
  2. Hazardous Wastes
  3. Solid Waste
  4. Biosolids
- Database of Businesses in Jefferson Parish maintained by the Jefferson Economic Development Commission

The I&HR Inspection List was developed by collecting information from all the databases mentioned above and entering it into a common database. Facilities that were listed for coverage under the LPDES Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activities (Permit No. LAR050000) were subsequently entered into the I&HR Inspection list. Additionally, municipal landfills; municipal waste treatment, storage, and disposal facilities, such as POTWs; and facilities included in the Toxic Release Inventory (TRI) were also included in the list. The result was a list of 146 facilities located within the jurisdiction of Jefferson Parish. This list is provided in Appendix B.

8.4 Procedures for Identification of Additional Facilities

The initial I&HR inspection list is a useful tool for identifying industries that may be subject to the I&HR Inspection Program; however, there may be additional facilities that should be incorporated over the permit term. The following methods are used to identify these facilities:

1. The review of Building Permit Applications allows the Parish to identify new industries before they are built and existing industries that are undergoing renovations. This provides the opportunity to address storm water concerns prior to construction; thereby, enabling the developer to plan for any treatment devices that may be required. In order to prevent the

business from using operational practices which may result in illicit discharges, industries can be inspected and educated about storm water pollution prevention soon after opening.

2. Another method of identification of facilities subject to the I&HR Inspection Program is through the Industrial Pretreatment Program. Facilities that are inspected under the Industrial Pretreatment Program may also have an impact to storm water quality.
3. Citizen complaints have proven to be an excellent resource in the identification of industries with impacts on storm water. The open canal system in the Parish makes it easy for anybody to notice an unusual appearance to the water.
4. Jefferson Parish receives and maintains copies of Public Notices from the LDEQ of industries that have applied for Louisiana Pollutant Discharge Elimination System (LPDES) permits. These industries are inspected to determine if they are subject to the I&HR Program. A list of valid LPDES permit holders is obtained from LDEQ periodically and industries are added to the list, as necessary.

8.5 Industrial Surveys of Facilities Currently on the List

The Industry Survey Report is used as a screening tool for industries on the list of I&HR facilities originally submitted to the USEPA on September 1, 1998 to determine if industries are substantial contributors of pollutants to the MS4. Facilities meeting two or more of the following criterion remain on the I&HR inspection list:

- Operational/ Open for Business
- Subject to LDEQ Permit No. LAR050000
- Evidence of illicit discharge

Once the Industry Survey Report has been completed via a phone survey or site visit and meets the designated criteria, it remains in the program and a full inspection is conducted using the I&HR Inspection Checklist and the Jefferson Parish SWPPP Review form. An inspection report is prepared using the Industrial Storm Water Inspection Report. All of these forms can be found in Appendix A. The current list of I&HR facilities is located in Appendix B.

8.6 Determination of Unpermitted Facilities

Once a facility is identified as eligible for the I&HR Inspection Program, it is added to the original list submitted to USEPA on September 1, 1998. This list is compared with a list of current LPDES permit holders. Any industry that does not have a current discharge permit from the LDEQ becomes a priority for the I&HR Inspection Program. These industries are the first ones surveyed and inspected, if necessary, to determine if they should be subject to the program and if they need to apply for an LPDES permit. Those industries that are not substantial contributors of pollutants to the MS4 are removed from the program.

8.7 Facility Inspection Quantity

There were 250 facilities on the list submitted to the USEPA on September 1, 1998; however, facilities have been added and removed over time. Jefferson Parish has attempted to conduct an Industrial Survey of each industry on the original list and the newly identified facilities. Facilities that are not substantial contributors are identified during the first inspection and removed from the list for future inspection.

8.8 Inspection Prioritization

Facilities identified as Type I and publicly owned treatment works, municipal waste treatment, storage and disposal facilities were inspected first. All of these facilities should be covered by either an individual LPDES permit or a Multi-Sector General Permit (MSGP), and they have a high potential to discharge pollutants in sufficient quantities to negatively impact storm water discharges to the MS4.

Facilities that are second in priority for inspection are those identified through a spill incident or complaint. These facilities are often found to have regular sources of discharges that require a storm water permit. After those facilities are addressed, the facilities that do not have any type of permit are surveyed. If they are determined to be a potential substantial contributor of pollutants to the MS4, they will be inspected and advised of their need to apply for a discharge permit. These facilities will remain in the I&HR Inspection Program.

The last group of facilities to be surveyed and/or inspected will be those on the previously submitted list that have valid discharge permits and may be substantial contributors of pollutants to the MS4.

8.9 Inspector Training

The surveys and inspections for the I&HR Inspection Program are conducted by the staff of the Department of Environmental Affairs. An initial training session was conducted for the inspectors upon implementation of the program.

The inspectors were trained in proper completion of the Industrial Survey, I&HR Inspection Checklist, and the I&HR Inspection Report. As part of the training, they were taught to recognize potential sources of storm water pollution, and how to determine which industries may be a substantial contributor of pollutants to the MS4.

8.10 Inspection Procedure

Inspections under the I&HR Program are generally conducted as follows:

- The investigator will visit the site.
- The investigator will complete a site inspection. Activities to be completed during the inspection will differ from site to site and will be left to the professional judgment of the investigator but may include:
    - The completion of an inventory of potential pollutants stored on site
    - The completion of an inventory of processes that may result in the contamination of surfaces exposed to rainfall, and processes that may result of discharges of non-storm water to the ground or onsite drainage systems
    - An inspection of all storm drains located on the site to identify any current or past discharges to storm drainage systems
    - The inspection of site drainage so that it can be determined whether any part of the site affected by the industrial activity drains to the MS4
    - A risk assessment of the storage of potential pollutants to determine whether adequate secondary containment is provided
    - An assessment of processes to determine whether the facility is likely to have an impact on the quality of storm water runoff; including waste disposal, storage practices
    - Photographic documentation of site conditions as necessary
- The results of the inspection will be recorded.

- The results of the inspection will be explained to the person in charge of the site along with any enforcement actions that will result from the inspection.
- Where significant violations are noted at the site, the investigator will issue a Notice of Violation. The inspector will make a follow-up visit to ensure that the violation has been corrected.
- Where no significant violations exist, the investigator will notify the person in charge that the inspection is finalized.
- The Inspector will document the inspection.

8.11 Recordkeeping

The Department of Environmental Affairs maintains a database documenting all inspections at industrial and high risk facilities. The database is accessible to all department personnel and is available to LDEQ upon request.

8.12 Measurable Goals

SCM: Monitor storm water pollution prevention at industrial and high risk facilities

Measurable Goal: Each year the Department of Environmental Affairs will conduct inspections at 20% of the facilities on the current I&HR Program List.

Justification: Inspections will assist in the reduction of pollution from industrial and high risk facilities by verifying SCMs are being used, and being used correctly, and by educating staff on the importance of pollution prevention and storm water management.

SCM: Identify potential industrial and high risk activities at facilities throughout the parish

Measurable Goal: The Department of Environmental Affairs will conduct 20 Industry Surveys at facilities to determine if an industrial and high risk inspection should be conducted. Surveys will be done at facilities where a complaint has been filed, where facility operations are unknown or where operations indicate a potential risk of polluting the storm drain system.

Justification: Surveys will assist in identifying facilities that should be added to the Industrial & High Risk program.

SECTION 9: CONSTRUCTION SITE RUNOFF

9.1 Program Description

This Construction Site Inspection (CSI) Program has been prepared in accordance with the National Pollutant Discharge Elimination System (NPDES) Permit requirements. This CSI Program has been prepared to assist in the notification procedures and training of Jefferson Parish staff in the inspection of construction sites disturbing one or more acres of land. This section provides background information on the regulatory aspects of controlling storm water pollution from construction sites as well as general requirements of the CSI Program as determined by the final LPDES Permit issued to the Jefferson Parish Municipal Separate Storm Sewer System (MS4).

9.2 Jefferson Parish Jurisdiction

Jefferson Parish is responsible for the inspection of construction sites within unincorporated areas of Jefferson Parish. The incorporated cities of Gretna, Harahan, Kenner, and Westwego are responsible for the development and implementation of their individual programs.

9.3 Jefferson Parish Public Works Projects

The responsibility for obtaining the proper permit documentation for all Parish projects remains with the Department(s) initiating the construction project. The Department(s) responsible for new construction projects is (are) required to make contractors of projects with a common plan of development of one (1) acre or greater aware of the requirement to obtain coverage under the Construction Sites General Permit. If a storm water permit is deemed necessary during the planning phase (typically for sites encompassing five acres or greater), then a Notice of Intent (NOI) and a Notice of Termination (NOT) will be submitted to the Louisiana Department of Environmental Quality (LDEQ) with a copy sent to the Department of Environmental Affairs prior to any clearing and grubbing activities.

A Storm Water Pollution Prevention Plan (SWPPP) is developed and implemented to maintain compliance during the construction phase of the project. The Department of Environmental Affairs is available to assist in the development of the SWPPP. The Department(s) responsible for a new construction project will make the determination to either develop the SWPPP internally or to include it as part of the contract with its design consultant. The SWPPP is included in the Contract Documents of the project which also outline the contractor's responsibility to implement and maintain documentation in the SWPPP throughout the duration of the construction phase.

9.4 Private Projects

A Building Permit is required for all developers/contractors prior to commencing construction activities. Jefferson Parish utilizes building permits as the primary source of information to the applicant in determining the required permits (e.g. storm water permit). All information related to the building permit application is available online through 'My Permit Now', which can be accessed at https://www.mypermitnow.org/login.aspx?ReturnUrl=%2fdefault.aspx. 'My Permit Now' is a permitting portal that provides up to date information to applicants about their plan review and permit status and that the Department of Inspection and Code Enforcement uses to efficiently track permits. The primary departments involved during the permit review process are:

1. Department of Inspection and Code Enforcement

2. Department of Environmental Affairs
3. Fire Department
4. Department of Engineering
5. State Fire Marshal
6. Louisiana Department of Health and Hospitals
7. Planning Department

The Department of Inspection and Code Enforcement does not issue a Building Permit until receiving approval from all departments involved in the review process.

Upon the developer/contractor's request, the Department of Inspection and Code Enforcement may arrange a pre-construction meeting between the engineer and/or contractor and representatives from all the applicable Parish Departments (e.g. Planning, Inspection and Code Enforcement, Public Works, Fire Department, Engineering, Environmental Affairs, etc.). The developer/contractor is provided information and guidance regarding storm water regulations at this pre-construction meeting.

9.5 Inspection Procedures

The CSI Program for storm water pollution control is administered and implemented by the Department of Environmental Affairs. The Department distributes a list of suggested SCMs to the applicant, but does not require the use of specific control measures by the contractor or consultant. Upon the applicant's request, Department personnel may provide alternatives available to control and reduce impacts of storm water runoff.

Department of Environmental Affairs personnel complete the Construction Site Inspection Report and a Construction Site Inspection Checklist during each inspection visit. Copies of these documents are included in Appendix A. The checklist identifies the most common sources of construction site pollution.

During the initial construction site inspection, the inspector meets with the construction project superintendent, the individual in charge of the site, and the person(s) responsible for the implementation and maintenance of construction site SCMs. Additionally, the Department of Environmental Affairs personnel and the person(s) in charge of the SWPPP confirm the following information:

- Total area to be disturbed by the construction project
- Construction timing and phasing
- Sources of potential storm water contamination (e.g. storage areas)
- Stormwater control measures
- LPDES permit
- Outfall location and receiving waters

After completing the interview with the designated person(s), a site tour and inspection is conducted by the Department of Environmental Affairs representative. The representative will identify any deficiencies or recommend additional practices, either structural or non-structural, which could reduce the amount of pollutants that could enter the MS4.

The Department representative focuses primarily on sediment and erosion control practices and the proper storage and use of chemical products. During the initial visit, the representative emphasizes that sediment and floatable items must not enter the MS4. Construction site entrances are identified and

inspected for evidence of mud being tracked into the street. All existing and newly installed drainage infrastructure is inspected for sufficient protection. The Department representative inspects the solid waste collection area, site housekeeping, and the storage of oil-based and other products with the potential to enter the drainage system (e.g. cement mixer washout, concrete curing compound, muriatic acid or solvents).

During this initial site inspection, the inspector acquires information requested on the checklist; identifies and documents areas where SCMs may be needed; and when necessary, gives the superintendent a deadline for installing additional measures (e.g. specific areas that the inspector has identified sediment or pollutants are leaving the project site and entering the MS4 or the street). The inspector makes subsequent inspection visits to the site to determine whether SCMs have been implemented and are working properly.

Department of Environmental Affairs personnel conduct inspections of construction sites one acre or greater. If coverage under the general LPDES permit has not been obtained, Department of Environmental Affairs personnel will supply the superintendent with a copy of the state regulations, a set of NOI forms, a Jefferson Parish construction pollution prevention plan form, and, a reference to EPA's website containing the EPA booklet, "Storm Water Management For Construction Activities: Developing Pollution Prevention Plans and Best Management Practices, Summary Guidance." Department of Environmental Affairs personnel will also explain the process of SWPPP development and offer to review the draft SWPPP and provide comments/suggestions.

9.6 Enforcement

Any construction project disturbing one or more acres of land is covered by state regulations. If a construction site remains noncompliant with the necessary requirements once information is provided and inspections are performed, the Department of Environmental Affairs reports the construction project to Louisiana Department of Environmental Quality for further review and enforcement action.

9.7 Personnel Training

The Department of Environmental Affairs periodically conducts training for personnel that perform construction site inspections. The training program addresses:

- Pollution Control Laws and Regulations
- Construction Site Run-off Pollution Prevention Practices
- Development of Storm Water Pollution Prevention Plans

The Department of Environmental Affairs also participates in storm water related construction site trainings in conjunction with other co-permittees, industry professional organizations, and local non-profits with an emphasis on storm water. These interactive workshops train contractors, engineers, architects, landscape architects, inspectors, and other agency personnel to navigate water quality regulations and permit requirements for construction sites. Additionally, information is provided regarding inspection/ enforcement action and hands-on group exercises in preparing a SWPPP is available. The Department of Environmental Affairs will provide one, four-hour training class per year for the inspection staff.

9.8 Recordkeeping

The Department of Environmental Affairs maintains a database documenting all construction site inspection activities. The database is accessible to all department personnel and is available to LDEQ upon request. Copies of the full inspection reports and SWPPPs are kept by the Department of Environmental Affairs until final stabilization of the construction project, and the Notice of Termination has been filed. Other events that are documented and kept on record include significant changes in on-site activities and significant storm water pollution events (e.g. spills or failure of SCMs). In addition, the contractor is required to maintain a copy of the SWPPP on-site at all times.

9.9 Measurable Goals

SCM: Educate Jefferson Parish inspection staff about construction site runoff

Measurable Goal: The Department of Environmental Affairs will conduct one (1), 4-hour training class every year to all inspection staff. The training will emphasize the importance of construction site runoff management and detail the procedures for conducting construction site inspections.

Justification: Providing inspection staff with the education and tools to conduct a thorough construction site inspection will make for effective inspections that will assist in reducing storm water pollution from construction sites.

SCM: Monitor storm water pollution prevention on construction sites

Measurable Goal: The Department of Environmental Affairs will conduct an initial construction site inspection on 100% of the construction sites that are one (1) acre or greater in area that have an approved permit for Code Enforcement. Follow-up inspections will be conducted as warranted.

Justification: Inspections will assist in the reduction of pollution from construction sites by verifying SCMs are being used, and being used correctly, and by educating contractors on the importance of pollution prevention and storm water management.

SCM: Reduce storm water pollution from Jefferson Parish construction sites

Measurable Goal: The Department of Environmental Affairs will assist Jefferson Parish staff in the development of Storm Water Pollution Prevention Plans (SWPPPs) for 100% of the Jefferson Parish construction sites.

Justification: Assisting in the development of the SWPPPs for parish construction sites will ensure that Parish staff is knowledgeable about the proper use and importance of SCMs.

SECTION 10: PUBLIC EDUCATION AND OUTREACH / PUBLIC INVOLVEMENT AND PARTICIPATION ON STORM WATER IMPACTS

10.1 Program Description

The Jefferson Parish Department of Environmental Affairs oversees the program for public education and outreach and public involvement and participation on storm water impacts. They organize several events throughout the year to inform the public of the importance of storm water management and storm water pollution prevention. Jefferson Parish assists in the program by providing opportunities for residents to assist in the management of storm water management (i.e. recycling, proper waste disposal).

In addition, the Floodplain Management Department has established a program with outreach projects to educate and inform the public on several topics that are related to storm water management. Below are descriptions of the public education events that are held yearly.

10.2 Nonpoint Source Pollution and Solutions Poster/Essay Contest

The Nonpoint Source Pollution and Solutions Poster/Essay Contest promotes, publicizes, and facilitates proper use, management and disposal of household hazardous wastes (HHW). The Department of Environmental Affairs has sponsored the contest annually for students in the 3rd through 8th grades in all schools in Jefferson Parish since the 1998-1999 school year. Students in Grades 3 through 6 submit a poster about nonpoint source pollution prevention. Students in Grades 7 and 8 submit an essay identifying nonpoint source pollutant generators and prevention strategies. The goal of the contest is to educate students and parents about the importance of keeping HHW, and other wastes, out of the MS4. Emphasis is placed on the importance of keeping waste oil, paint, pesticides and other chemicals out of the storm drainage system.

An awards banquet is held each spring and features a presentation to students, parents and faculty by a representative from an environmental organization, such as the Louisiana Department of Environmental Quality, Louisiana Department of Natural Resources Coastal Management Division, Lake Pontchartrain Basin Foundation, or the Barataria Terrebonne Estuary Program, about environmental and stormwater issues. Trophies are awarded to 1st, 2nd and 3rd place winners and certificates are awarded to honorable mentions. The winning posters and essays are displayed in two Jefferson Parish Regional Public Libraries, one on the East Bank and one on the West Bank.

10.3 Enviroscape Storm Water Module Demonstrations

The Enviroscape Storm Water module is used to demonstrate sources of pollution in urban runoff. The Department of Environmental Affairs uses this module at public education events that educate citizens about the prevention of litter and storm water pollution, such as Senior Citizen Day and Jefferson Beautification Inc. Earth Day. The Enviroscape Storm Water module is also used as a learning tool during guest speaking events at elementary and middle schools within the Parish.

10.4 Sewer Science Program Workshops

Sewer Science is a high school laboratory program that teaches students the science of wastewater treatment by simulating plant operations such as primary clarification, biological secondary treatment and filtration. Jefferson Parish conducts Sewer Science Program workshops to educate local high school students about water quality monitoring and wastewater treatment processes. This program is a long-term effort that spans multiple sessions and is conducted at one or two local high schools annually.

10.5 Christmas Tree Collection and Marsh Restoration

Jefferson Parish conducts a Christmas Tree Collection and Marsh Restoration event every January or February. Residents of unincorporated Jefferson Parish and the Town of Jean Lafitte are asked to place their trees on the curb for collection. Parish trucks collect the tress and deliver them to the Marsh Restoration Project. At the restoration event, volunteers use boats to place trees into pre-constructed shoreline fences in Goose Bayou, near the Town of Jean Lafitte.

10.6 Storm Drain Marking Program

The Parish Storm Drain Marking Program promotes, publicizes and facilitates public reporting of the illicit discharges. The Jefferson Parish Department of Environmental Affairs administers the program that recruits volunteers to apply polyurethane markers to storm drain inlets and catch basins with messages such as, "No Dumping Flows to Lake Pontchartrain" on the East Bank of the Parish and "No Dumping Flows to Coastal Wetlands" on the West Bank of the Parish in both English and Spanish. Both markers warn of a potential fine of up to $5,000 and include the Department of Environmental Affairs' telephone number to report any suspicious dumping activities. This program reminds citizens that it is illegal to dispose of any materials in the MS4, including HHW, grass clippings, leaves, and pet waste.

10.7 Drop-off Recycle Sites for Waste Automotive Fluids, Tires, Batteries and Electronic Waste

Jefferson Parish operates drop-off recycling sites at two trash drop-off sites, one on each side of the Mississippi River, to facilitate the proper management, disposal and recycling of used motor vehicle fluids. These recycling sites, which have been in operation since the early 1990s, allow residents to drop-off used motor oil, antifreeze, gasoline, automotive batteries and tires for recycling. The facilities also accept non-hazardous solid waste, such as garbage, construction and demolition waste, grass clippings, leaves, tree limbs and white goods. In 2017, the facilities also began accepting electronic waste. These drop-off sites are available to all citizens of Jefferson Parish, including the municipalities.

In December 2014, Jefferson Parish implemented a used cooking oil recycling service at two drop-off sites. Each site contains a 250 gallon container that receives waste cooking oil to be recycled by the All American Grease Company.

The used motor oil, antifreeze, and gasoline recycling program and operation of the drop-off sites is promoted regularly in newspaper ads, mail-outs, water bill inserts and through community presentations. The Parish also provides the public with information regarding the proper identification and disposal of HHWs that are distributed via utility bills and public service announcements.

10.8 Household Hazardous Waste and Electronic Waste Collection

Jefferson Parish holds a Household Hazardous Waste (HHW) and Electronic Waste collection event as funds allow. During this event residents can drop off their household products that contain corrosive, toxic, ignitable, or reactive ingredients and they will be properly disposed of by the Parish. Items accepted include mercury-containing equipment, paint, lawn and garden products, household cleaning products, lighting components and electronic waste.

10.9 Residential Reuse, Recycle and Disposal Guide

The Parish provides a *Residential Reuse, Recycle and Disposal Guide* to citizens that promotes the proper use, management, disposal and/or recycling of HHWs, pesticides, herbicides, and fertilizers. Specific HHWs covered in this guide include expired medications, nickel-cadmium batteries, used syringes, air conditioners and refrigerators, latex paint, oil-based paints and solvents, gasoline and diesel fuel, used motor oil and antifreeze, car and truck batteries, computer components and monitors, fluorescent lamps, mercury, and pesticides/herbicides. This document provides guidance to residents about stormwater control measures and specific listings of outlets for the proper disposal, reuse and recycling of these materials. Disposal outlets included in the guide are the Parish's two (2) Drop-off Recycling Sites and local recyclers.

The guide is available to all Jefferson Parish residents, including municipalities, through the Department of Environmental Affairs in print and online. Printed copies of the guide are distributed via mail-outs, presentations and by request. Inquiries regarding the disposal/recycling of HHW are directed to the Department of Environmental Affairs. Depending on the particular waste, citizens are either informed of procedures necessary for approved disposal in the municipal garbage, the locations of available drop-off sites, or given contact information for those businesses known to receive such waste.

10.10 Community Litter Pickup Events

Jefferson Parish participates in several community litter pick up events each year, such as the Lake Pontchartrain Basin Foundation Beach Sweep and the Lake Pontchartrain Basin Foundation Spring Sweep. The Department of Environmental Affairs organizes some events and assists with the coordination for others. The Parish's involvement can range from providing supplies (i.e. gloves, trash bags, safety vests) and furnishing equipment to passing out educational materials. Parish staff have also provided safety instructions for all participants and picked up the litter with event volunteers.

10.11 Floodplain Management Department Outreach Program

The Floodplain Management Department educates the public on several topics throughout the year using brochures/flyers, mailings, emails, videos on their website, billboards, attending educational events and making presentations. The topics include severe weather preparation, living within a levee system, flood safety, green infrastructure, flood management and flood mitigation.

10.12 Recordkeeping

The Department of Environmental Affairs and the Floodplain Management Department maintain a database documenting all public education and public involvement events. The databases are accessible to all department personnel and available to LDEQ upon request.

10.13 Measurable Goals

SCM: Provide public education events for the residents of Jefferson Parish

Measurable Goal: The Department of Environmental Affairs and Floodplain Management will continue to organize and conduct the following events in each year of the permit term:

- The Annual Municipal Storm Water Public Education-Poster-Essay Contest – Awards ceremony to be held each spring
- Enviroscape class visits for Parish schools to increase public awareness about storm water pollution prevention – Conduct a minimum of five (5) presentations each year
- Sewer science workshops – Conduct at two (2) local high schools each year
- Provide stormwater education materials at area festivals – Attend a minimum of two (2) festivals each year
- Storm Drain Marking Program – Mark a minimum of 80 storm drains each year, with a distribution as close to equal as possible between the East Bank and West Bank.
- Community demonstrations or lectures about storm water quality and management for civic and community groups – Conduct a minimum of two (2) per year
- Distribution of educational materials regarding various storm water management topics – Provide to Jefferson Parish residents upon investigation of complaints, during inspections and during events.

Justification: The above events are an excellent way to inform citizens about storm water impacts and will also gain public support for the Jefferson Parish storm water management program. In addition, educating children is a great way to change the views for the future.

SCM: Involve Jefferson Parish residents in events that assist in storm water management

Measurable Goal: The Department of Environmental Affairs will continue to organize and conduct the following events in each year of the permit:

- Christmas Tree Collection and Marsh Restoration Program – Conduct every January or February
- Storm Drain Marking Program – Organize two (2) volunteer events each year
- Community Litter Pickup Events – Organize or assist in one (1) events each year
- Household Hazardous Waste (HHW) Collection Event – Conduct one (1) event each year

Justification: The above events will not only assist in Jefferson Parish's storm water management program, but also are great ways for parish residents to get involved and learn the importance of the program.

SECTION 11: REPRESENTATIVE MONITORING PROGRAM

11.1 Program Description

The Department of Environmental Affairs is responsible for the Representative Monitoring Program, which includes the Dry Weather Screening Program, the Wet Weather Screening Program, the Industrial and High Risk Runoff Monitoring Program and the 303(d)/TMDL Monitoring Program. The purpose of these monitoring programs is to prevent, identify and eliminate storm water pollution.

11.2 Dry Weather Screening Program

Jefferson Parish submitted the Dry Weather Screening Program as part of the Illicit Discharge Program to the USEPA on March 1, 1999, in accordance with the original permit implementation schedule (LPDES Permit Table III.A). Under its Dry Weather Screening Program, and in accordance with the current LPDES permit, the Parish is required to screen at least 250 major outfalls during the permit period. A major outfall is defined as a municipal separate storm sewer outfall that discharges from a single pipe with an inside diameter of 24 inches or more, or its equivalent.

The Department of Environmental Affairs conducts a Dry Weather Screening program at outfalls in the open canal system. The program focuses on screening for illicit discharges at outfalls during dry weather conditions (less than 0.1 inches of rainfall per 24 hours for the preceding 72 hours) to increase the chances that any observed flow is more likely to be associated with an illicit discharge. The goal of the program is to identify and eliminate any unpermitted illicit discharges to the MS4. At each outfall where flow is identified, it is investigated immediately in an attempt to locate the source resolve the issue.

Dry weather screenings will be completed in accordance with the following procedure:

- A designated staff member from Environmental Affairs identifies an outfall.
- Where no flow is noted, the screening is considered valid and the screening location is recorded. Then, the staff member moves to the next outfall.
- Where flow is noted, the staff member will complete a field assessment that may include the following water quality parameters: pH, temperature, conductivity and/or fecal coliform.
- If samples are collected for laboratory analysis, they will consist of manual grab samples, collected at the outlet point of the outfall. Where significant flow exists, the grab sample should be taken from the horizontal and vertical center of the flow. Samples will be collected into appropriate containers and care shall be taken so as to prevent contamination of the inside of the sample bottle. Samples shall be kept free of uncharacteristic floating debris. Fecal coliform samples must be collected and remain in the original container, stored in a cooler with ice and delivered to the laboratory within eight hours for testing. Sampling and field analysis equipment shall be adequately cleaned prior to commencing sampling and field analysis at another outfall.
- Field samples shall be analyzed in accordance with equipment manufacturer's instructions.
- Where field observation or testing identifies conditions inconsistent with standards set forth in Jefferson Parish Municipal Code Chapter 16, Article I, Sec 16.9.2: Dumping in catch basins, etc.; special fine, the staff member will attempt to confirm the source.
- Following correct storage of any samples, the staff member will begin a survey of the drainage system upstream of the outfall in an attempt to locate the source of the flow.

- If a source is identified, where possible, the staff member will take photos of the source and collect basic information regarding the date, time, location, nature and individual(s) involved in the discharge. Further action may be taken under Jefferson Parish Municipal Code Chapter 16, Article I, Sec 16-9.2: Dumping in catch basins, etc. following the steps in Section 6.2: Investigation of this SWMP.
- Results of all field screening will be recorded on the Dry Weather Screening Form (Appendix A).

11.3 Wet Weather Screening Program

The certification for the implementation of the Wet Weather Screening Program was submitted to the USEPA on April 1, 1998. Under its Wet Weather Screening Program, and in accordance with the current LPDES permit, the Parish is required to screen no more than 250 major outfalls during the permit period. A major outfall is defined as a municipal separate storm sewer outfall that discharges from a single pipe with an inside diameter of 24 inches or more, or its equivalent.

The Department of Environmental Affairs conducts a Wet Weather Screening program at outfalls in the open canal system. The program focuses on screening for illicit discharges at outfalls during wet weather conditions. The goal of the program is to identify and eliminate any unpermitted illicit discharges to the MS4 by detecting changes in or abnormal discharges from outfalls to the open canal system. Outfalls that appear to have non-storm water discharges due to inconsistencies in odor, color or other non-point source pollutant identifiers will be investigated for illicit discharge following the steps in Section 6.2.

As part of this program, Jefferson Parish also conducts monitoring at five (5) locations – two (2) outfalls representative of residential land use, one (1) outfall representative of commercial land use, and two (2) outfalls representative of industrial land use. Sampling is performed at each location twice a year. Samples are analyzed for pH, Temperature, Oil and Grease, Fecal Coliform, Hardness, Total Suspended Solids (TSS), Total Dissolved Solids (TDS), Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Total Kjeldahl Nitrogen (TKN), Total Nitrite, Total Nitrate, Total Ammonia, Total Phosphorus, Dissolved Phosphorus, Cadmium, Copper, Lead, Nickel, and Zinc, in accordance with the NPDES Permit.

The representative sampling sites are listed below and shown in the maps included in Appendix E.

Site 1 – Soniat Canal at Suave Road (R-1)
Site 2 – Rue Louis Phillippe & Ames Canal (R-2)
Site 3 – California Canal & Cousin Canal (C-1)
Site 4 – Lead Street & Earhart Canal (I-1)
Site 5 – St. George Ave & St. Peter's Ditch (I-2)

11.4 Industrial and High Risk Monitoring Program

The Industrial and High Risk Facilities (I&HR) Monitoring Program identifies and describes practices and procedures employed by Jefferson Parish to reduce the discharge of pollutants to the MS4 from industrial and high risk facilities. The Program monitors storm water discharges from Type 1 and 2 facilities which discharge to the MS4. The list of eligible facilities is generated using the procedure outlined in Section 8.

Jefferson Parish submitted the Industrial and High Risk (I&HR) Monitoring Program by June 1, 2001, in accordance with the prior permit implementation schedule (LPDES Permit Table III.A). The Parish is

responsible for industrial discharges to the MS4 within the unincorporated areas of the Parish. However, Jefferson Parish is not responsible for industrial discharges within the incorporated cities of Gretna, Harahan, Kenner, and Westwego.

11.4.1 Type 1 Facilities

Type 1 facilities are defined as municipal landfills; hazardous waste treatment, disposal, and recovery facilities; industrial facilities that are subject to EPCRA Title III, Section 313 (also known as the Toxic Release Inventory (TRI)); and industrial facilities that have been identified as contributing a substantial pollutant loading to the MS4. Type 1 facilities must monitor for the following parameters:

1. Any pollutants limited in an existing LPDES permit for a subject facility
2. oil and grease
3. chemical oxygen demand (COD)
4. pH
5. biochemical oxygen demand, five-day (BOD5)
6. total suspended solids (TSS)
7. total phosphorous
8. Total Kjeldahl Nitrogen (TKN)
9. nitrate plus nitrite nitrogen
10. any information on discharges required under 40 CFR 122.21(g)(7)(iii) and (iv)

The frequency of monitoring is determined on a case-by-case basis after a facility inspection to familiarize Parish personnel with the sources and volumes of all waste streams discharged to the MS4. The Parish may also alter the monitoring requirements for individual Type 1 facilities as follows:

1. to coincide with the corresponding industrial sector-specific monitoring requirements of the Louisiana Multi-Sector General Permit (MSGP).
2. to coincide with the monitoring requirements of any individual permit for the storm water discharges from that facility.

The optional monitoring list must be supplemented by any pollutants of concern identified by the copermittees for that facility. Jefferson Parish allows facilities currently holding permits to alter the monitoring requirements as described above. The monitoring is self-monitoring unless the Parish has reason to suspect additional monitoring requirements may need to be established. In these instances, the Parish may collect samples and determine if the additional monitoring requirements are warranted. All self-monitoring results are reported to the Parish at a frequency to be determined for each individual facility and they must be submitted on the I&HR Self-Monitoring Report Form (Appendix A).

11.4.2 Type 2 Facilities

Type 2 facilities are municipal waste treatment, storage, or disposal facilities (e.g. public owned treatment works, transfer stations, or incinerators); and industrial or commercial facilities the copermittees believe are contributing pollutants to the MS4. Monitoring requirements for Type 2 facilities can be met by conducting visual monitoring at a frequency established by Jefferson Parish and completing the Visual Monitoring Checklist (see Appendix A). For example, the Jefferson Parish Wastewater Treatment Facilities (WWTFs) use the self-monitoring program to meet Type 2 facility requirements. WWTF personnel conduct the monitoring quarterly and then archive the documentation at the facility.

11.4.3 No Exposure Certification

In lieu of analytic monitoring, Jefferson Parish may accept a certification from a facility that the raw and waste materials, final and intermediate products, by-products, material handling equipment or activities, industrial machinery or operations, or significant materials from past industrial activity are not presently exposed to storm water and are not expected to be exposed to storm water for the certification period. When Jefferson Parish accepts a "no exposure" certification, one site visit will be conducted during the permit term to verify the facility's "no exposure" exemption.

11.5 303(d)/TMDL Monitoring Program

LDEQ conducts water quality monitoring to identify and list "impaired" waterbodies on the 303(d) List. Once a waterbody has been identified as "impaired" a Total Maximum Daily Load (TMDL) is developed with a Waste Load Allocation (WLA) to help control the amount of pollution entering the waterbody and ultimately return it to a non-impaired status. Jefferson Parish's monitoring requirements, as specified in the LDPES permit, are as follows:

- Discharges to water bodies where a TMDL is complete but not WLA has been established – No monitoring is required.
- Discharges to water bodies where a TMDL is complete and a WLA has been established – Quarterly grab samples must be taken for the pollutants for which a WLA has been assigned
- Discharges to 303(d) listed streams with an impairment identified as caused by MS4s – Quarterly samples must be taken for the pollutant(s) cited in the 303(d) list as caused by stormwater discharges

In compliance with Part II, Section B of LDPES Permit, Jefferson Parish developed the Jefferson Parish Stormwater Sampling Plan and submitted it to LDEQ in May 2018. The Jefferson Parish Department of Environmental Affairs will obtain quarterly samples at outfalls discharging to the 303(d) waterbodies listed below and test for the pollutants listed below. These waterbodies and pollutants are from the 2020 Louisiana Water Quality Integrated Report. The Subsegment Delineation Maps for Subsegment 020501 and 041302 are included in Appendix E.

Subsegment Number	Subsegment Description	Suspected Causes of Impairment	Suspected Sources of Impairment	TMDL Completed?
020501	Sauls, Avondale, and Main Canals	Chloride	Forced Drainage Pumping, Golf Courses, Landfills	No
		Sulfates	Forced Drainage Pumping, Golf Courses, Landfills	No
		Total Dissolved Solids	Forced Drainage Pumping, Golf Courses, Landfills	No
041302	Lake Pontchartrain Drainage Canals in Jefferson and Orleans Parishes	Oxygen, Dissolved	Municipal (Urbanized High Density Area)	No
			Sanitary Sewer Overflows (Collection System Failures)	No

			Urban Runoff/Storm Sewers	No
		pH, High	Source Unknown	No
		Enterococcus	Municipal (Urbanized High Density Area)	No
			Sanitary Sewer Overflows (Collection System Failures)	No

A report for the TMDLs for Fecal Coliform Bacteria for Selected Subsegments in the Lake Pontchartrain Basin, Louisiana was prepared for the EPA in March 2012. This report recommends a TMDL for the Lake Pontchartrain Drainage Canals in Jefferson and Orleans Parishes (Subsegment 041302). A waste load allocation is recommended for the subsegment in the summer and winter months. Because Subsegment 041302 is not listed on the LDEQ 303(d) list as impaired by fecal coliform, the Jefferson Parish Department of Environmental Affairs does not test storm water for fecal coliform.

Jefferson Parish will conduct an annual review of current, EPA-Approved TMDLs, WLAs and 303(d) listed streams, and determine if any waterbodies have been added that require the monitoring outlined in the Permit. Once a waterbody has been identified, Jefferson Parish will modify the SWMP to incorporate the monitoring protocols and results.

11.6 Allowable Non-Storm Water Discharges

In 1998 Jefferson Parish submitted to the Environmental Protection Agency a list of the categories of non-storm water that are not prohibited from being discharged into the MS4. This list has been reviewed as part of this SWMP and is included in Appendix B.

11.7 Recordkeeping

The Department of Environmental Affairs maintains a database documenting all monitoring activities. The database is accessible to all department personnel and is available to LDEQ upon request.

11.8 Measurable Goals

SCM: Monitor for pollutants entering the MS4

Measurable Goal: The Department of Environmental Affairs will continue to implement the four (4) elements of the Representative Monitoring Program:

- Dry Weather Screening Program – Conduct screenings at 20% of the major outfalls each year
- Wet Weather Screening Program – Conduct screenings at 20% of the major outfalls each year
- I&HR Monitoring Program – Conduct inspections at 20% of the I&HR facilities each year
- 303(d)/TMDL Monitoring Program – Perform quarterly sampling at representative outfalls that discharge to 303(d) waterbodies listed in the latest Louisiana Water Quality Integrated Report. In accordance with the Jefferson Parish Stormwater Sampling Plan, monitoring will be conducted at six (6) outfalls on the East Bank that discharge to the Lake Pontchartrain Drainage Canals and at three (3) outfalls on the West Bank that discharge to the Sauls, Avondale, and Main Canals. The latest water quality report will be reviewed annually to identify any newly listed waterbodies within the jurisdiction of Jefferson Parish.

Justification: These monitoring programs assist in the prevention, identification and elimination of pollution entering the MS4.

SECTION 12: POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

12.1 Program Description

The Pollution Prevention/Good Housekeeping Program has developed and implemented operation and maintenance practices to prevent or reduce pollutant runoff from municipal operations. Under this program, employees are trained to prevent and reduce storm water pollution from park and open space maintenance, fleet and building maintenance, new construction/land disturbances, storm water system maintenance and other Parish functions that could negatively impact storm water quality. Additionally, the program defines appropriate stormwater control measures (SCMs) for pollution prevention/good housekeeping in municipal operations and assigns performance measures for each SCM.

12.2 Spill Prevention

Jefferson Parish facilities and departments engage in spill prevention by implementing administrative, structural and non-structural SCMs and storm water control measures. For many Parish facilities including wastewater treatment plants, water treatment plants, trash drop-off and recycling centers, landfills, drainage pump stations, and vehicle maintenance facilities, the guidelines for the development and implementation of such SCMs and control measures are provided in Spill Prevention, Control and Countermeasure (SPCC) Plans and Storm Water Pollution Prevention Plans (SWPPP). The Department of Environmental Affairs initiates and reviews all updates to SWPPPs and SPCC Plans for Parish facilities. The department also identifies facilities that require new plans and manages plan development.

The Department of Environmental Affairs conducts inspections of Jefferson Parish facilities that could potentially impact storm water quality. The municipal inspections are conducted in the same manner as the I&HR facility inspections with the purpose to identify and eliminate the discharge of pollutants from these facilities. See Section 8 for specific inspection procedures.

12.3 Training

Jefferson Parish will conduct annual training for employees with job responsibilities that may impact storm water quality. Topics of the training may include the following:

- Basics of storm water pollution prevention
- Use of spill cleanup equipment
- Proper waste disposal methods
- Inspection and identification of facilities for potential storm water hazards
- Facility specific operational stormwater control measures

12.4 Recordkeeping

The Department of Environmental Affairs maintains a database documenting all pollution prevention and good housekeeping activities for municipal facilities, including training and inspections. The database is accessible to all department personnel and is available to LDEQ upon request.

12.5 Measurable Goals

SCM: Training program for Parish employees

Measurable Goal: The Department of Environmental Affairs will conduct annual training to Parish employees on the importance of storm water management. Topics that will be covered are listed above.

Justification: This training will educate Parish employees who have job responsibilities that may impact storm water quality, which will ultimately reduce and eliminate storm water pollution from Parish activities.

SCM: Monitor Parish facilities for storm water management

Measurable Goal: The Department of Environmental Affairs will perform inspections of Parish facilities that could potentially impact storm water quality. Inspections will be made a minimum of once per permit term.

Justification: These inspections will identify any Parish facilities that are impacting the storm water quality in Jefferson Parish. They will also assist in reducing any storm water pollution and provide education about the importance of pollution prevention and storm water management to employees who work at the facility.

SCM: Develop/update SWPPP and SPCC Plans for Parish facilities

Measurable Goal: The Department of Environmental Affairs will develop and/or update SWPPP and SPCC Plans for Parish facilities. Plans will be updated once per permit term.

Justification: The SPCC Plans and SWPPPs will assist facility employees in storm water management and provide direction in the event of a spill to prevent or eliminate a pollutant from entering the MS4.

SECTION 13: GREEN INFRASTRUCTURE/LOW IMPACT DEVELOPMENT

13.1 Program Description

The goal of the Jefferson Parish Green Infrastructure/Low Impact Development program is to promote development that utilizes sustainable stormwater management. The program will help avoid water quality degradation and reduce flooding potential caused by increased stormwater runoff rates. Ultimately, the water quality will be increased in the receiving waters of the MS4.

13.2 Review of Construction Development Requirements

Jefferson Parish has completed a thorough review of the existing codes and ordinances, assessing the requirements for landscaping and buffering and for enforcement of zoning regulations. Audit tools, such as the Center for Wastershed Protection's Better Site Design Codes and Ordinances Worksheet and the EPA's Water Quality Scorecard, were used to assist in identifying provisions that do not support the green infrastructure and low impact development practices. These provisions will be amended as necessary to integrate the principles of green infrastructure and provide the flexibility that will facilitate green infrastructure and low impact approaches to development.

The Parish has begun taking steps to encourage green infrastructure and low impact practices. In August 2017, the Council adopted Ordinance No. 25405, which allows the Parish to begin to realize its goals related to low impact development and stormwater management. The ordinance included the following:

- Consolidation of existing landscaping and buffering regulations into the Unified Development Code to make landscaping standards more consistent between districts and land uses
- Update to standards to reflect stormwater control measures
- Establishment of regulations regarding permitting and incentives for certain aspects of low impact development

The Jefferson Parish Planning Department developed the Integrated Green Infrastructure Strategy that guides Parish efforts for continued implementation of green infrastructure. This Plan was authorized by the Parish Council on February 6, 2019 by adopting Resolution 128317 and achieved the following goals:

- Evaluate existing stormwater management plans, policies, regulations and practices.
- Analyze stormwater data – rain volume, FEMA repetitive loss, soil typologies, etc.
- Assess parking and paving requirements.
- Review Stormwater control measures implemented by similar communities.
- Invite and integrate community insight and feedback into the Plan.
- Propose policies to encourage green infrastructure.

In February 2022, the Department of Environmental Affairs completed an Erosion and Sediment Control Regulatory Assessment of the Parish's existing codes and ordinances. The review and assessment resulted in recommendations to either refine the existing code of ordinances or add proposed measures to existing development guidelines, permitting procedures, or enforcement for the Parish's implementation of effective erosion and sedimentation control regulations. Upon the assessment's completion, the recommendations were integrated into the Green Infrastructure and Low Impact Development Program through the Green Infrastructure Plan.

13.3 Design Guidelines

Design guidelines will be prepared to assist developers in implementing green infrastructure into their design. The guidelines will be provided to developers and/or persons requesting a building permit so they can be considered early in the design process. They will also be provided to Jefferson Parish departments for use in any of their upcoming projects. Recommendations for these design guidelines have been prepared through the Green Infrastructure Plan.

13.4 Training

Training will be provided to Jefferson Parish departments to explain the importance of green infrastructure and low impact approaches on stormwater pollution prevention. Amended ordinances will be reviewed and examples will be provided of how green infrastructure and low impact practices can be integrated into new development and re-development projects. This training will provide Jefferson Parish with the tools needed to implement the green infrastructure and low impact development program.

13.5 Measurable Goals

SCM: Encourage green infrastructure and low impact development in Parish codes

Measurable Goal: By the end of the permit term, the Parish will incorporate the recommendations found in the Integrated Green Infrastructure Plan's audit of the codes which impede green infrastructure and low impact development.

Justification: Revising the current codes will allow and encourage more developers to use green infrastructure facilities, which will ultimately decrease stormwater runoff rates and increase water quality in the MS4.

SCM: Provide green infrastructure design guidelines to developers

Measurable Goal: The Parish will compile a packet with green infrastructure/low impact design guidelines that will be made available to developers and persons requesting a building permit. These guidelines will be complete by the end of the permit term.

Justification: Providing guidelines for green infrastructure will provide minimum requirements, as approved by the Parish, and provide developers with a resource of the approved facilities that could be implemented in their design.

SCM: Educate Parish personnel on the Green Infrastructure/Low Impact Development

Measurable Goal: The Department of Environmental Affairs will conduct annual training for Jefferson Parish personnel on the importance of Green Infrastructure/Low Impact Development and an overview of the use, integration and maintenance of green infrastructure facilities.

Justification: Educating Parish personnel on green infrastructure will assist in its implementation throughout the Parish.

APPENDIX A: FORMS

1. Industrial Storm Water Inspection Report
2. Automotive Inspection Form
3. Construction Site Inspection Report
4. Construction Site Inspection Checklist
5. Notice of Intent form for Construction Activities Greater than 5 Acres
6. Screening of Stormwater Outfalls Inspection Report Forms
7. Industrial Survey Report
8. I&HR Inspection Checklist
9. Jefferson Parish SWPPP/SPCC Review Forms
10. I&HR User Self-Monitoring Report Form
11. I&HR Visual Monitoring Checklist
12. Pesticide Application Inspection Report Form
13. Complaint Reporting Form
14. Phone Log
15. Construction Activities Violation Notice
16. Construction Activities Courtesy Notice
17. Illegal Dumping Violation Notice
18. Illegal Dumping Courtesy Notice
19. Waste Water Violation Notice
20. Waste Water Courtesy Notice
21. Storm Drain Marker Request and Information Form
22. Jefferson Parish Storm Water Program Color Brochure
23. Storm Water Runoff Control at Construction Sites Brochure
24. Leaf Blowing Brochure

INDUSTRIAL STORM WATER INSPECTION REPORT
Jefferson Parish Environmental Affairs

Industry Name:

Address:

Phone: **Fax:**

Zone: **Basin:**

Date: **IU**: Stormwater ☒ Sig. Cat. ☐ Sig. Minor ☐

Time:

Unannounced: ☐ **Announced:** ☐

Initial: ☐ **Follow-up:** ☐

Person(s) contacted and titles:

Inspectors:

Company's SIC #(s): **NAICS Code#(s):** **AI#:**

Jefferson Parish Wastewater Discharge Permit: Yes ☐ No ☐

LA State Permit: Yes ☐ No ☐

EPA Hazardous Waste Generator ID#:

NPDES Permit: Yes ☐ No ☐

LPDES Storm Water Permit Yes ☐ No ☐

Number of days business operates: **Hours of operation:**

Continuous: Yes ☐ No☐

INDUSTRIAL STORM WATER INSPECTION REPORT
Jefferson Parish Environmental Affairs

Description of operations at facility:

List and describe activities that are exposed to storm water:

Describe any non-storm water discharges to the storm water drainage system or the ground surface, e.g., non-contact cooling water, process wastewater, etc.:

Does the facility have impervious secondary containment where required? Yes ☐ No ☐
(If yes, describe the location of the secondary containment, if it is covered or uncovered, etc.)

Are there any open drums or container that exposed to rainwater? Yes ☐ No ☐
(If yes, describe the location of the secondary containment, if it is covered or uncovered, etc.)

Is there evidence that a spill(s) occurred? Yes ☐ No ☐
(If yes, describe the appearance and material spilled.)

Does the facility have a spill cleanup kit on site? Yes ☐ No ☐
(Describe contents and location.):

Is there evidence of leaking vehicles and/or equipment on site? Yes ☐ No ☐
(Describe):

Is there litter, debris, or other solid materials that may enter the storm water drainage system on site: (describe)
Yes ☐ No ☐

Is the facility practicing good housekeeping Yes ☐ No ☐
(if no, describe):

Are waste storage areas clean and well maintained Yes ☐ No ☐
(describe):

Are vehicles and/or equipment washed on site Yes ☐ No ☐
(If yes, give a detailed description of the flow of wastewater):

INDUSTRIAL STORM WATER INSPECTION REPORT
Jefferson Parish Environmental Affairs

Identify problems encountered:

Miscellaneous notes:

Recommendations for further action: Yes ☐ No ☐
(If yes, give a detailed description.)

Report completed by:

Name: _____ **Date:**
Title

Report reviewed by:

Name: _____ **Date:**
Storm Water Management Supervisor

Plans to Ask Facility Representative for a Copy Of :

1. **SPCC Plan - (Spill Prevention and Countermeasure Plan)**
2. **SWPPP – Storm Water Pollution Prevention Plan**
3. **Tier I or Tier II Plan - (if applicable, lists all chemicals etc. stored at facility for local Fire Marshall/Department)**

Storm Water Management
Jefferson Parish Department of Environmental Affairs

SERVICE STATION / AUTOMOTIVE REPAIR SHOP/AUTO SALVAGE YARD INSPECTION REPORT

A. General Information:

Service Station: ☐ Automotive Repair Shop ☐
Date:
Facility Name:

Location:

Phone:

Person (s) Contacted:
Title:

By Staff Member (s):

NPDES Yes ☐ No ☐
LAPDES Yes ☐ No ☐
AI# SIC Code:

ZONE: ***Basin:***

B. Repairs

Are repairs performed outside? ☐ Yes ☐ No
If yes, what types of repairs:

_____
_____
_____

Are these repairs the source of potential pollutants to stormwater? Yes ☐ No ☐

_____
_____

C. Spill Clean-Up

Describe methods employed to clean-up spills and/or leaks (if wet, where does wastewater flow; if dry, how is absorbent disposed of):

_____
_____
_____
_____
_____
_____

Does the facility have a written Spill Prevention Control and Countermeasure (SPCC) plan? Yes ☐ No ☐

D. Wastewater Information

Floor Drains	Destination: Sewer ☐ Storm Drain ☐ Other ☐ Unknown ☐ No Floor Drains ☐	
	Treatment Grit Trap ☐ Oil/Water Separator ☐ Other ☐ No Treatment ☐	
	How often is treatment system cleaned	
	Company that cleans treatment system	
Service Bays	Destination: Sewer ☐ Storm Drain ☐ Other ☐ Unknown ☐ No Service Bays ☐	
	Treatment Grit Trap ☐ Oil/Water Separator ☐ Other ☐ No Treatment ☐	
	How often is treatment system cleaned	
	Company that cleans treatment system	
Gas Island Cleanup	Destination: Sewer ☐ Storm Drain ☐ Other ☐ Unknown ☐ No Cleanup ☐	
	Treatment Grit Trap ☐ Oil/Water Separator ☐ Other ☐ No Treatment ☐	
	How often is treatment system cleaned	
	Company that cleans treatment system	

Storm Water Management
Jefferson Parish Department of Environmental Affairs

Commercial Car Wash/ Detailing	Destination: Sewer ☐ Storm Drain ☐ Other ☐ Unknown ☐ No Car Wash ☐	
	Treatment Grit Trap ☐ Oil/Water Separator ☐ Other ☐ No Treatment ☐	
	How often is treatment system cleaned	
	Company that cleans treatment system	
Fund Raising Hand Car Wash	Destination: Sewer ☐ Storm Drain ☐ Other ☐ Unknown ☐ No Washing ☐	
	Treatment Grit Trap ☐ Oil/Water Separator ☐ Other ☐ No Treatment ☐	
	How often is treatment system cleaned	
	Company that cleans treatment system	
Radiator Repair	Destination: Sewer ☐ Storm Drain ☐ Other ☐ Unknown ☐ Not Performed ☐	
	Treatment Grit Trap ☐ Oil/Water Separator ☐ Other ☐ No Treatment ☐	
	How often is treatment system cleaned	
	Company that cleans treatment system	

E. Liquid Waste Storage And Documentation

Oil Change/Lube	Done ☐ Not Done ☐	
	Storage	Tank ☐ Drum ☐ Other
	Capacity	
	Location: Underground ☐ Aboveground ☐ Inside ☐ Outside ☐ On Concrete ☐ On Grass ☐	
	Waste Hauler Name	
	Date of Latest Manifest	
Transmission Service	Done ☐ Not Done ☐	
	Storage	Tank ☐ Drum ☐ Other
	Capacity	
	Location: Under ground ☐ Above ground ☐ Inside ☐ Outside ☐ On Concrete ☐ On Grass ☐	
	Waste Hauler Name	
	Date of Latest Manifest	
Radiator Flush Antifreeze	Done ☐ Not Done ☐	
	Storage	Tank ☐ Drum ☐ Other
	Capacity	
	Location: Under ground ☐ Above ground ☐ Inside ☐ Outside ☐ On Concrete ☐ On Grass ☐	
	Waste Hauler Name	
	Date of Latest Manifest	

Solvents Parts Washer	Done ☐ Not Done ☐	
	Storage	Tank ☐ Drum ☐ Other
	Capacity	
	Location: Under ground ☐ Above ground ☐ Inside ☐ Outside ☐ On Concrete ☐ On Grass ☐	
	Waste Hauler Name	
	Date of Latest Manifest	
Brake Fluid	Done ☐ Not Done ☐	
	Storage	Tank ☐ Drum ☐ Other
	Capacity	
	Location: Under ground ☐ Above ground ☐ Inside ☐ Outside ☐ On Concrete ☐ On Grass ☐	
	Waste Hauler Name	
	Date of Latest Manifest	

F. Solid Waste Generated:

Tires (used)	
Disposal Information:	

Hoses, belts, etc.	
Disposal Information:	

Batteries	
Disposal Information:	

Oil Rags	
Disposal Information:	

Lathe	
Disposal Information:	

G. Waste Storage Areas:

Describe waste storage areas:		
Waste stored near floor drains?	Yes ☐ No ☐	
Waste stored near storm drains?	Yes ☐ No ☐	
Evidence of spills?	Yes ☐ No ☐	
Stained concrete/soil?	Yes ☐ No ☐	
Open or leaking drums, buckets, etc.?	Yes ☐ No ☐	
Containment provided where needed?	Yes ☐ No ☐	
Floatable such as auto parts, paper in floor drains or storm drains?	Yes ☐ No ☐	
Waste storage area neat?	Yes ☐ No ☐	

H. Additional Comments

Inspector:_____ Date:_____

Reviewed By: _____ Date: _____

Date and Inspector Initials ( )

STORM WATER MANAGEMENT
CONSTRUCTION SITE INSPECTION REPORT

CONSTRUCTION SITE INSPECTION REPORT
Department of Environmental Affairs
4901 Jefferson Hwy. Suite E
Jefferson, LA 70121

Date of Inspection:
Inspectors:
LPDES Permit #:
NOI Required:
Agency Interest (AI) #:
SIC Code :

Municipal ☐ Industrial ☐ Residential ☐

Date of initial contact:

Additional visits:

Project Name:

Location:

Total Square Feet:

Acreage:

Number of construction entrances:

General Contractor:
Phone:

Person(s) Contacted:
Cell Phone Number:

STORM WATER MANAGEMENT
CONSTRUCTION SITE INSPECTION REPORT

Department of Environmental Affairs Inspector(s):

Receiving water bodies:

Sedimentation traps on storm drains? ☐ Yes ☐ No

Mud in storm drains? ☐ Yes ☐ No

Silt fences around construction site? ☐ Yes ☐ No

Entrances maintained with gravel or mulch? ☐ Yes ☐ No

Stabilization practices employed? ☐ Yes ☐ No

Dumpster on site for solid waste? ☐ Yes ☐ No

Litter on site? ☐ Yes ☐ No

Bulk Petroleum Products on site? ☐ Yes ☐ No

Open or leaking drums? ☐ Yes ☐ No

STORM WATER MANAGEMENT
CONSTRUCTION SITE INSPECTION REPORT

Cement trucks washed on site? ☐ Yes ☐ No

Equipment cleaned on site? ☐ Yes ☐ No

Mop sink for paints? ☐ Yes ☐ No

Disposal of toxics handled properly? ☐ Yes ☐ No

Areas of Improvement:

Additional Comments:

Post Construction Activities:

Inspector:
Date:

Reviewed By:

Stormwater Management Supervisor

Date:

MS4 Construction Site Inspection Checklist

Date of Initial Contact _____ DEA Inspector(s) _____

Additional visits _____

Project: _____ Building square footage: _____

Location: _____ Site acreage: (sq.ft./43,560) _____

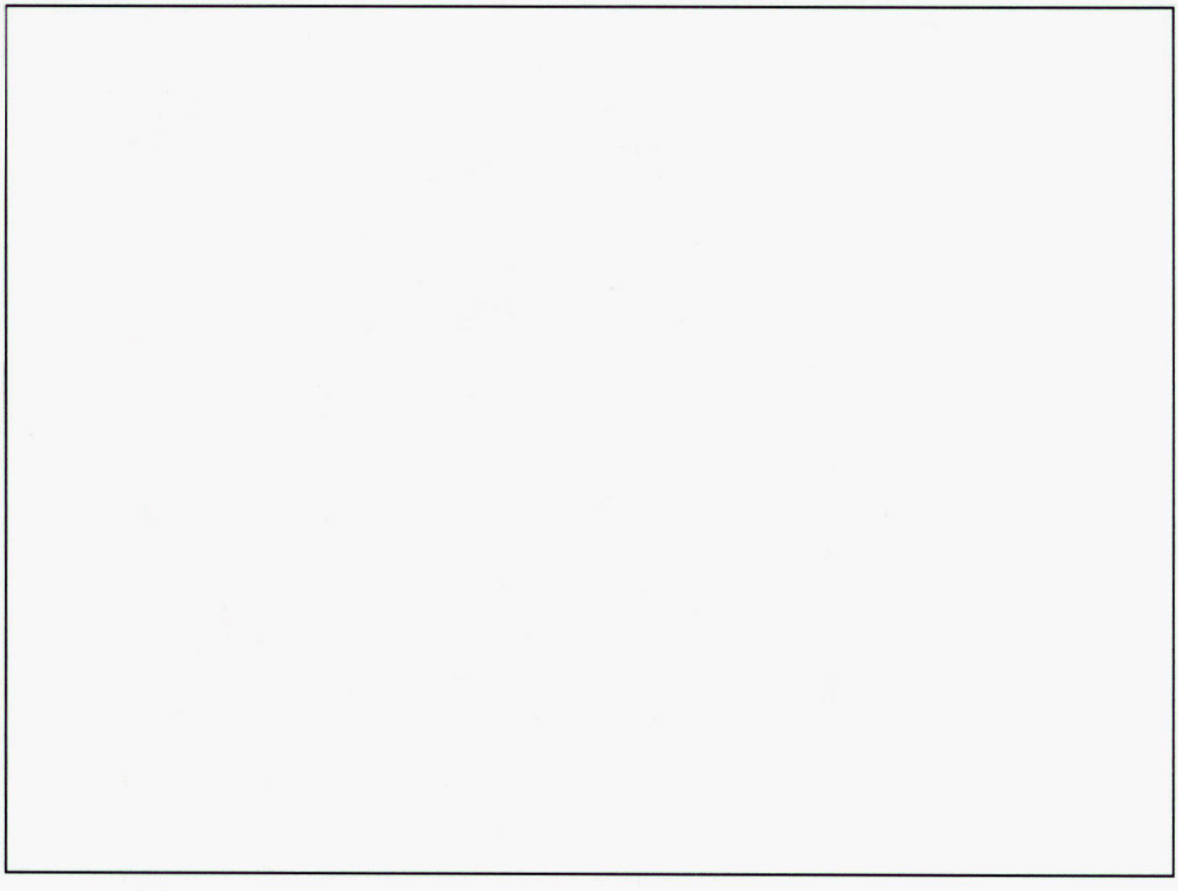
_____ # of construction entrances _____

_____

General Contractor: _____ Office phone: _____

Person(s) contacted: _____

Phone: _____



Sediment traps on storm drains? _____

[ ] YES [ ] NO [ ] N/A _____

Mud/silt/debris in storm drains? _____

[ ] YES [ ] NO [ ] N/A _____

Silt fences around disturbed areas? _____

[ ] YES [ ] NO [ ] N/A _____

Entrances maintained with aggregate or mulch? _____

[ ] YES [ ] NO [ ] N/A _____

Stabilization practices employed? _____

[ ] YES [ ] NO [ ] N/A _____

Dumpster for solid waste on site? _____

[ ] YES [ ] NO [ ] N/A _____

Litter on site/Poor housekeeping? _____

[ ] YES [ ] NO [ ] N/A _____

Bulk petroleum products on site? _____

[ ] YES [ ] NO [ ] N/A _____

Open or **leaking drums**? _____

[ ] YES [ ] NO [ ] N/A _____

Containment for petroleum products? _____

[ ] YES [ ] NO [ ] N/A _____

Cement trucks washed on site? _____

[ ] YES [ ] NO [ ] N/A _____

Equipment cleaned on site? _____

[ ] YES [ ] NO [ ] N/A _____

Hazardous material disposed of properly? _____

[ ] YES [ ] NO [ ] N/A _____

Jefferson Parish Environmental Affairs
Storm Water Management
4901 Jefferson Highway
Suite E
Jefferson, Louisiana 70121
Date: _____

Re: **Stormwater General Permit Associated with Construction Activity Greater than 5 Acres Notice of Intent (NOI) CSW-G**

Dear : _____

Attached is a **Stormwater General Permit Associated with Construction Activity Greater than 5 Acres Notice of Intent (NOI) CSW-G,** for a Louisiana Pollutant Discharge Elimination System (LPDES) permit, authorized under EPA's delegated NPDES program under the Clean Water Act. To be considered complete, every item on the form must be addressed and the last page signed by an authorized company agent.

Three copies (one original and two copies) of your **completed NOI** should be submitted to:

Department of Environmental Quality
Office of Environmental Services
Post Office Box 4313
Baton Rouge, LA 70821-4313
Attention: Permits Division

In addition, a copy of the completed NOI should be submitted to:

Director of Environmental Affairs
Attn: Storm Water Management Supervisor Jefferson Parish
Environmental Affairs
4901 Jefferson Parish, Suite E
Jefferson, Louisiana 70121

If you have any questions or comments, please contact Sami Khalil, Storm Water Management Supervisor at (504) 731-4612.

Sincerely,

Director
Jefferson Parish Department of Environmental Affairs

Attachment Received by: _____

Date: _____

SR16- Complaint:
Address:
Inspectors: Date: Time:

Inspector: Diane Coughlin, Environmental Quality Specialist
Jefferson Parish Department of Environmental Affairs
dcoughlin@jeffparish.net

SCREENING OF STORMWATER OUTFALLS
INSPECTION REPORT

DRY [ ] WET [ ] WEATHER

Investigator: **Date:**

Type of Area: Residential ☐ Commercial ☐ Industrial ☐ Other ☐

Zone: **Basin:**

SCREENING OF CANAL

Location: Street canal runs along:

Does the storm drainage system appear to be working properly? [y] [n]
If no, describe:

Type of canal bank : [vegetated] [concrete] Stable: [y] [n]
If no, describe:

Is nutria activity apparent? [y] [n]

Are there any signs of pollutants? [y] [n]
Litter [ ] Sheen [ ] Foam [ ] Odor [ ] Algae [ ] Turbidity [ ]
Excessive vegetation [ ] Absence of vegetation [ ]
Other:

Recommended Actions: [none]

SCREENING OF OUTFALL

Location: Side: (N) (S)

Pipe Size: Type: concrete metal other:

Is water flowing from the pipe?

If yes, describe appearance of discharge: Sheen [y] [n] Foam [y] [n]

Color [clear] _____ Turbidity [clear]

Other:

Was a sample taken? [y] [n] Type:

Is there excessive sediment accumulation below outfall? [y] [n]
Does the vegetation around the outfall show signs of pollutants? [y] [n]
If yes, describe:

Recommended Actions: [none] Sub-Basin Survey: [ ]
Other:

SCREENING OF STORMWATER OUTFALLS
INSPECTION REPORT

DRY [ ] WET [ ] WEATHER

Investigator: **Date:**

Type of Area: Residential ☐ Commercial ☐ Industrial ☐ Other ☐

Zone: **Basin:**

SCREENING OF CANAL

Location: Street canal runs along:

Does the storm drainage system appear to be working properly? [y] [n]
If no, describe:

Type of canal bank : [vegetated] [concrete] Stable: [y] [n]
If no, describe:

Is nutria activity apparent? [y] [n]

Are there any signs of pollutants? [y] [n]
Litter [ ] Sheen [ ] Foam [ ] Odor [ ] Algae [ ] Turbidity [ ]
Excessive vegetation [ ] Absence of vegetation [ ]
Other:

Recommended Actions: [none]

SCREENING OF OUTFALL

Location: Side: (E) (W)

Pipe Size: Type: concrete metal other:

Is water flowing from the pipe?

If yes, describe appearance of discharge: Sheen [y] [n] Foam [y] [n]

Color [clear] _____ Turbidity [clear]

Other:

Was a sample taken? [y] [n] Type:

Is there excessive sediment accumulation below outfall? [y] [n]
Does the vegetation around the outfall show signs of pollutants? [y] [n]
If yes, describe:
Recommended Actions: [none] Sub-Basin Survey: [ ]
Other:

Storm Water Management

Jefferson Parish Department of Environmental Affairs

INDUSTRIAL SURVEY REPORT - STORM WATER

DATE: _____ TIME: _____

COMPANY NAME: AI #

_____

ZONE: BASIN:

ADDRESS: PHONE:

_____

PERSON CONTACTED: _____ TITLE: _____

BY STAFF MEMBER(S): _____

TYPE OF BUSINESS: _____

DETAILED DESCRIPTION OF OPERATION: _____

_____

_____

_____

_____

☐ DISCHARGES TO DRAINAGE SYSTEM:

- ☐ Process water (Describe) _____
- ☐ Non-contact cooling water _____
- ☐ Discharge Permit Permit # _____

☐ DISCHARGES TO SEWERAGE SYSTEM:

Are hazardous materials stored here? ☐ Yes ☐ no

Are hazardous wastes generated at this facility? ☐ Yes ☐ no

If yes, give E.P.A. Generator Identification Number: _____

I certify that I have visited the above business and find that, to the best of my knowledge, said business should be regarded as:

- ☐ An insignificant industry to be eliminated from further consideration
- ☐ An industry that should be referred to the Louisiana Department of Environmental Quality and apply for a discharge permit
- ☐ An industry that should be referred to the Stormwater Supervisor
- ☐ An industry that should be referred to the Pre-Treatment Supervisor
- ☐ An industry that should be referred to the Louisiana Department of Health and Hospitals

_____

(Name) (Date)

Date and Inspector's Initials ( )

INDUSTRIAL and HIGH RISK INSPECTION CHECKLIST

Company Name: _____

Location Address: _____

_____

_____

Phone: _____

Mailing Address: _____

_____

_____

Date: _____ Last Inspection Date: _____

Time: _____ Permit # _____

Announced [ ] Unannounced [ ] Water Account No.(s) _____

Initial [ ] Followup [ ] _____

A. GENERAL INFORMATION

Person(s) Contacted: _____

By Staffmembers: _____

Description of Operation: (request copies of, or draw diagram of general facility layout/manufacturing processes, including any treatment facilities and discharge points)

_____

_____

_____

_____

_____

_____

SIC #(s) _____

LPDES/NPDES Permit(s) # _____

Number of permitted Outfalls _____ Is stormwater monitored at these sites? Yes [ ] No [ ]

Is stormwater sampled at any outfalls? (If yes, get copies of latest DMRs) Yes [ ] No [ ]

Are rainfalls records being maintained? Yes [ ] No [ ]

Outfall point locations(s) (drainage):

_____

_____

_____

_____

_____

B. FACILITY OPERATION CHARACTERISTICS

Number of days/weeks business operating: _____

Hours of operation: a.m. to p.m. [ ] continuous

Types of Facilities:

[ ]	Offices	[ ]	Warehouse
[ ]	Manufacturing Facilities	[ ]	Fleet Maintenance Shop
[ ]	Employee Kitchenette	[ ]	Car/Truck Wash
[ ]	Employee Cafeteria	[ ]	Steam Cleaners
[ ]	Commercial Kitch	[ ]	Laundry
[ ]	Cooling Towers: non-contact [ ]	contact [ ]	

[ ] Coolers: # _____ Sizes: _____

[ ] Freezers: # _____ Sizes: _____

[ ] Ice Machines: # _____ Sizes: _____

Number of employees: _____

C. DISCHARGE CHARACTERISTICS

Origin of Discharges:

	Area of Facility	Discharge to Sanitary Sewerage	Discharge to Stormwater Drainage
[ ]	Restrooms	[ ]	[ ]
[ ]	Kitchen, cafeterias, etc.	[ ]	[ ]
[ ]	Process wastewater	[ ]	[ ]
[ ]	Storage tank overflow	[ ]	[ ]
[ ]	Diked storage area	[ ]	[ ]
[ ]	Cooling towers, noncontact	[ ]	[ ]
[ ]	Cooling towers, contact	[ ]	[ ]
[ ]	Floor drains	[ ]	[ ]
[ ]	Facility washdown	[ ]	[ ]
[ ]	Car/Truck wash	[ ]	[ ]
[ ]	Coolers/freezers/ice machines	[ ]	[ ]
[ ]	Septic tank	[ ]	[ ]
[ ]	Package Sewage Treatment Plant	[ ]	[ ]
[ ]	Outside Drains	[ ]	[ ]
[ ]	Other	_____	

Have there been any changes in the facility operation (i.e. new additions, remodeling, etc.) or industrial processes since the last inspection? Yes [ ] No [ ] (If yes, describe below.)

_____

_____

If yes, have any of the above changes affected the flow, discharge points or wastewater characterisitics?
Yes [ ] No [ ] (If yes, describe below.)

_____

_____

_____

D. TREATMENT

[ ] No Treatment

	Treatment Facility (check if applicable)	Number of Units	Area or process that facility services
[ ]	Grease trap	_____	_____
[ ]	Oil Separator		
[ ]	Sedimentation/grit trap	_____	_____
[ ]	pH adjuster	_____	_____
	[ ] manual	_____	_____
	[ ] automatic	_____	_____
[ ]	Septic tank	_____	_____
[ ]	Package sewage treatment	_____	_____
[ ]	Screen/filters	_____	_____
[ ]	Chemical precipitation	_____	_____
[ ]	Air flotation	_____	_____
[ ]	Biological treatment	_____	_____
	(type) _____		
[ ]	Other _____		
	_____		

E. EQUIPMENT

If there is an on-site fleet maintenance shop and/or truck was, collect the following information:
Number/Type of vehicles serviced: _____
Type of treatment system(s) (describe): _____
[ ] Waste oil tank _____ gallons
Company that pumps out waste oil tank: _____
How often: _____

F. CHEMICALS AND WASTES

List chemical(s) stored: Quantity: Type/Size of Container:

_____

_____

_____

Is there a containment wall around them? Yes [ ] No [ ]
Are there spill cleanup materials on site? Yes [ ] No [ ]

Was a Spill Prevention Control and Countermeasure Plan requested? Yes [ ] No [ ] On File [ ]
(Allow industry 2 weeks from inspection date to deliver SPCC Plan to our department.)

Proximity of chemical storage to storm drains:

List hazardous materials stored: Quantity: Type/Size of Container:

Does this facility generate hazardous wastes? Yes [ ] No [ ]
(If yes, collect the following information)
EPA/DEQ Generator ID #: _____

Type of Hazardous Waste Quantity Disposal Method

Is there a dumpster? Yes [ ] No [ ]
If yes, is it leakproof? Yes [ ] No [ ]
If yes, is it covered? Yes [ ] No [ ]
Is there debris around the dumpster? Yes [ ] No [ ]

Comments:

Inspection Checklist completed by: _____ Date: _____

Inspection Checklist reviewed by: _____ Date: _____

Storm Water Management
Jefferson Parish Department of Environmental Affairs

Jefferson Parish Storm Water Pollution Prevention Plan Review

Facility Name:
Address:
Basin: Zone:
Inspector(s):
Facility Representative(s):
Phone #:

Date of Inspection:
LPDES Permit #
SIC Code: AI#:
Municipal ☐ Yes ☐ No
Industrial ☐ Yes ☐ No

1. ☐ Cover Sheet
   - ☐ Company Name
   - ☐ Address
   - ☐ Phone Number
   - ☐ Emergency Phone Number
   - ☐ LPDES Permit Number

2. ☐ Certification Signature Page
   - ☐ Certification Statement
   - ☐ Name, Title, and Signature
   - ☐ Plan as Amended Section

3. ☐ Pollution Prevention Team
   - ☐ Identifies Specific Individuals
   - ☐ Outlines Their Responsibilities

4. Description of Potential Pollutant Sources, Including: see book

A. ☐ Does the Plan Site Map Indicate: (check all that appear)
   - ☐ Drainage Areas
     - ☐ Not Applicable
   - ☐ Drainage Patterns/Outfalls
     - ☐ Not Applicable
   - ☐ Structural and Non-structural Drainage/Flood Controls
     - ☐ Not Applicable
   - ☐ Surface Waters
     - ☐ Not Applicable
   - ☐ Significant Materials Exposed to Precipitation
     - ☐ Not Applicable
   - ☐ The Location of Leaks or Spills That Have Occurred in the Last Three Years
     - ☐ Not Applicable
   - ☐ The Location of Industrial Activities Exposed to Precipitation Including:
     - ☐ Fueling Stations
       - ☐ Not Applicable
     - ☐ Vehicle/Equipment Maintenance or Cleaning Areas
       - ☐ Not Applicable
     - ☐ Loading/Unloading Areas
       - ☐ Not Applicable
     - ☐ Waste Treatment, Storage, and Disposal Areas Exposed To Stormwater
       - ☐ Not Applicable
     - ☐ Liquid Storage Tanks
       - ☐ Not Applicable
     - ☐ Exposed Processing Areas
       - ☐ Not Applicable
     - ☐ Exposed Storage Areas
       - ☐ Not Applicable

B. ☐ List of Pollutants Likely to be Present in the Discharges
   - ☐ Not Applicable

Storm Water Management
Jefferson Parish Department of Environmental Affairs

Spill Prevention, Control and Countermeasures Plan Inspection Checklist

Is there appropriate spill response equipment on site like spill clean up kits?
☐ Yes ☐ No
Have the members of the operating crews been trained annually (documented)?
☐ Yes ☐ No
Have quarterly site inspection been preformed (documented)?
☐ Yes ☐ No
Has the plan been reviewed and revised at least once a year (documented)?
☐ Yes ☐ No
Is there a signed copy of this plan on site?
☐ Yes ☐ No

- Page v (in table of contents section)

Is the primary and secondary coordinators information correct?
☐ Yes ☐ No
If no, what are the changes: _____

- Page 2.1

Is the facility mailing and site description correct?
☐ Yes ☐ No
If no, what are the changes: _____

- Page 2.2-2.3 (and following charts)

Is the inventory of significant materials accurate in both text and table forms?
☐ Yes ☐ No
If no, what are the changes: _____

- Site Plan (follows section 2)

Are the locations of tanks, containers, materials and drainage accurate?
☐ Yes ☐ No

If no, what are the changes: _____

- Section 3 (Spill Plan)

Does the plan contain Figure 3.1 Decision tree?
☐ Yes ☐ No

Review the "Emergency Equipment and Response Material" and its location.
Is the minimum required material on site?
☐ Yes ☐ No
If no, what needs to be replaced? _____

- Section 4 & Section 5

Are the predicted flows from the material storage areas accurate?
☐ Yes ☐ No
If no, what has changed from the first est.?
_____
Is the security section accurate at the site?
☐ Yes ☐ No
If no, what are the changes? _____

- Section 6 & 7

Has training been preformed during the year of new and present employees?
☐ Yes ☐ No
Are records up to date?
☐ Yes ☐ No
Are the outlines for the annual training and new employees training in the plan?
☐ Yes ☐ No
If no, what are the changes? _____

- APPENDIX E

Are the new diesel tanks inspection and testing requirements in place at the pump stations?
☐ Yes ☐ No

Storm Water Management
Jefferson Parish Department of Environmental Affairs

Industrial Facility STORM WATER Visual Inspection REPORT

Facility Name:
Address:
Basin: Zone:
Inspector(s):
Facility Representative(s):

Date of Inspection:
LPDES Permit#:
SIC Code: AI#:
Municipal ☐ Yes ☐ No
Industrial ☐ Yes ☐ No

Is there a Vehicle Maintenance Facility on site ? Yes ☐ No ☐
Are there any Underground Storage Tanks at this facility ? Yes ☐ No ☐
No. of Aboveground Storage Tanks on site: Containment ? Yes ☐ No ☐
Have there been any reported spills in the last three years ? Yes ☐ No ☐
If so, material spilled & quantity (in gallons):
Any mitigation action taken:

Is facility connected to own package treatment plant ? Yes ☐ No ☐
Is storm water monitored at these sites? Yes ☐ No ☐
Is storm water sampled at any outfalls? (If so, get copies of latest DMRs) Yes ☐ No ☐

Are rainfall records being maintained? Yes ☐ No ☐ ☐**Don't Know**

Past notices of violations, citations, or other regulatory actions against the facility by EPA, DEQ, other state or local agencies in the past three years Yes ☐ No ☐

Interior floor drains discharge to: ☐ **sanitary sewer** ☐ **storm drain** ☐**Don't Know**
Exterior floor drains discharge to: ☐ **sanitary sewer** ☐ **storm drain** ☐ **Don't Know**

Yes ☐ No ☐	**Outside areas clean (housekeeping) ?**
Yes ☐ No ☐	**Process debris removed regularly ?**
Yes ☐ No ☐	**Area clear of excessive dust and/or material from industrial operations?**
Yes ☐ No ☐	**Evidence of leaks and drips from equipment ?**
Yes ☐ No ☐	**Catch basins, storm water conveyance pipes and storm water treatment facilities cleaned regularly ?**
Yes ☐ No ☐	**Chemical containers properly closed and labeled ?**
Yes ☐ No ☐	**Spill containment and clean-up materials on site and in convenient locations ?**
Yes ☐ No ☐	**Used absorbent materials removed and disposed of in a timely manner ?**
Yes ☐ No ☐	**Drainage ditches and outfall areas free of erosion ?**
Yes ☐ No ☐	**Waste bins/dumpsters sealed and closed ?**
Yes ☐ No ☐	**Outdoor drums properly covered and labeled ?**
Yes ☐ No ☐	**Outdoor drum storage areas covered ?**
Yes ☐ No ☐	**Outdoor materials storage areas covered ?**
Yes ☐ No ☐	**Adequate spill containment for outdoor liquid storage areas ?**
Yes ☐ No ☐	**Are containment areas free of liquids ?**

Report Completed By:
Date:

JEFFERSON PARISH
INDUSTRIAL USER SELF-MONITORING REPORT

_____ _____
Industry Name Analytical Laboratory Name

_____ _____
Mailing Address Mailing Address

Jefferson Parish Permit # _____ Reporting Period: _____ to _____

Sample Site Location: _____

_____

Sampled By: _____ Lab or Sample No.: _____

Date Sampled:
(Composite Start Date) _____ (Composite End Date) _____

Time Sampled:
(Composite Start Time) _____ (Composite End Time) _____

Date Sampled:
(Grab Sample) _____ Time Sample:
(Grab Sample) _____

Date Received in Lab: _____ Time Received in Lab: _____

Type of Sample: ( ) Grab ( ) Composite
If composite: ( ) 24-hours ( ) 12-hours ( ) 8-hours ( ) _____

Grab samples are required for pH, oil and grease, cyanide, total phenol, sulfide and volatile organics. These parameters may be reported with parameters from composite samples if they were grabbed during the same sampling period. Please indicate below the type of sample for each parameter: C = composite and G = grab

TEST RESULTS
(All parameters reported in mg/l, except pH (Std Units), organics (µg/l) & Temp (Degree F) unless otherwise specified by permit)

Parameter	Results	Date & Time Analyzed	Analyst	Type of Sample	Lab No.

(Note: If additional space is required for parameters, please use separate sheet)

METHODS OF ANALYSIS

Reference used: _____

Test	Container	Preservative	Method	Page

Comments:

_____
_____
_____
_____
_____

QUALITY CONTROL AND QUALITY ASSURANCE RESULTS

_____
_____
_____
_____
_____
_____
_____
_____
_____

ATTACH A SIGNED COPY OF THE LABORATORY REPORT WITH CHAIN OF CUSTODY

CERTIFICATION STATEMENT

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 the 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.

Company Certified By: _____ Date: _____

Signature of Authorized Representative

_____

Name and Title of Authorized Representative (Please Print)

INDUSTRIAL AND HIGH RISK MONITORING PROGRAM
VISUAL MONITORING CHECKLIST

Instructions: Complete this record for each facility. Place an X in the appropriate box for each item. If any response requires and explanation, do so in the Observations/Comments space. Additional comments should be included at the bottom of this form or attached on a separate sheet of paper.

Facility Name: _____ Date: _____

Location: _____ Monitor's Name: _____

Non-structural Best Management Practices (BMPs) to be followed at this facility include the items indicated below:

( ) Good Housekeeping	( ) Litter Control	( ) Secondary Containment
( ) Preventative Maintenance	( ) Labeling	( ) Visual Inspection
( ) Mitigation Cleanup	( ) Materials Handling	

Quarterly Visual Inspection Results:

		YES	NO	N/A	Observations/Comments
1.	Does it appear that the BMPs applicable to the site (listed above) are being followed? If not, describe areas of noncompliance.	( )	( )	( )	_____
2.	Area materials stored outside exposed to stormwater?	( )	( )	( )	_____
3.	Are industrial activities conducted outside exposed to stormwater?	( )	( )	( )	_____
4.	Are there nonstormwater discharges to the stormwater drainage system or the ground surface? If so, describe these discharges.	( )	( )	( )	_____
5.	Does stormwater pond on the site?	( )	( )	( )	_____
6.	Could spills flow to the stormwater drainage system?	( )	( )	( )	_____
7.	Is this facility in compliance with the Spill Prevention and Control Plan (SPC)?	( )	( )	( )	_____
8.	Is a spill cleanup and containment kit kept on site?	( )	( )	( )	_____
9.	Are employee training records maintained?	( )	( )	( )	_____
10.	Are equipment maintenance records maintained?	( )	( )	( )	_____
11.	Does it appear that any valves are leaking?	( )	( )	( )	_____
12.	Does it appear that any tanks are cracked, leaking, or in poor shape?	( )	( )	( )	_____
13.	Are the grounds clear of all litter, such as old tires, old rims, miscellaneous debris, etc.?	( )	( )	( )	_____
14.	Are any portions of the facility grounds eroding?	( )	( )	( )	_____
15.	Are there any visible signs of spills?	( )	( )	( )	_____
16.	Is the secondary containment in good shape?	( )	( )	( )	_____
17.	Are there any drums or other containers open in which precipitation could enter?	( )	( )	( )	_____
18.	Do the impervious areas of the facility need to be swept?	( )	( )	( )	_____
19.	Any visible signs of leakage on mechanical equipment?	( )	( )	( )	_____
20.	Are the trash dumpsters covered?	( )	( )	( )	_____

Additional Comments: _____

Storm Water Management

Jefferson Parish Department of Environmental Affairs

Pesticide Application Inspection Report

Date: **Time:**

Weather Conditions:

Zone: **Basin:**

Inspected By:

Announced: ☐ **Unannounced:** ☐

Company Name:
Person Contacted:
Address:

Phone: Fax: **e-mail:**

Applicator's Name, Title
Certification Number
Certification Class(s)
Date of Expiration

*If Certification is Not Valid, Name, Location & Phone Number of Nearest Certified Applicator:

Applicator's Name, Title
Certification Number
Certification Class(s)
Date of Expiration

Type of Application: Hand Applicator ☐ Rig Applicator ☐

Type of Area Sprayed:

Roadside	☐	Median	☐	Canal/Ditch	☐
Banks	☐	Bottoms	☐		

Date of Last Application in This Location:

Herbicides(s) Used (attach label and MSDS for each) and Where Used (canal bank, bottom, etc.):

Mixing Ratio:

Herbicide_	☐ ounces, ☐ gallons, etc.
Water____	☐ ounces, ☐ gallons, etc.
Other____	☐ ounces, ☐ gallons, etc.

Herbicide_ ☐ ounces, ☐ gallons, etc.
Water____ ☐ ounces, ☐ gallons, etc.
Other____ ☐ ounces, ☐ gallons, etc.

Application Rate (per acre):

Were Herbicides Mixed on Site?: Yes ☐ No ☐
If yes: Did the applicator use a Parish water supply, such as a fire hydrant?
Yes ☐ No ☐
If yes, was a backflow preventer used? Yes ☐ No ☐
If no: Where were the chemicals mixed?

Does the applicator have a copy of the label and MSDS on the vehicle for each herbicide being used? Yes ☐ No ☐

Is the applicator wearing the protective clothing prescribed by the label?
Yes ☐ No ☐

Describe the protective clothing:

Does the company have an SPCC Plan? Yes ☐ No ☐ Get a copy

*If the company does not have an SPCC Plan, describe measures that would be taken in the event of a spill:

Is a spill cleanup kit on the vehicle? Yes ☐ No ☐

* Observe applicator while spraying and note extent of coverage, drift problems, leaks, etc.

Equipment Check:

Are there any leaks in the hoses or from the valves? Yes ☐ No ☐

*Ask the applicator to pressurize the system so the pressure gauges can be checked (Rig applications). The gauges are usually located on the front of the truck.

Are the pressure gauges working? Yes ☐ No ☐

Are all hoses, fittings and valves free of leaks or cracks? Yes ☐ No ☐

Are the safety lights on the vehicle working (rig applicator only): Yes ☐ No ☐

Comments:

Report Completed By: Date:

Report Reviewed By: Date:
Sami Khalil, Stormwater Supervisor

INSPECTION REPORT
JEFFERSON PARISH
DEPARTMENT OF ENVIRONMENTAL AFFAIRS

Address:

Council District:

Type of Complaint:

Responding Division:

Service Request No:

Lot Legal Descriptions:

Background:

Inspection:

Conclusions:

Submitted by: _____ Date:
Name, Title

Reviewed by: _____ Date:

Name, Title

FORM No. EDCD-3

PHONE LOG

DATE: _____ TIME: _____

COMPANY NAME: _____

PERSON CONTACTED: _____

BY STAFF MEMBER: _____

PURPOSE OF CONTACT: _____

SUMMARY OF DISCUSSION: _____

REPORT COMPLETED BY : _____

CONSTRUCTION ACTIVITIES VIOLATION NOTICE

ADDRESS:

IT HAS BEEN REPORTED THAT THERE ARE CONDITIONS ON THIS PROPERTY WHICH MAY BE A SAFETY HAZARD. AN INSPECTION OF THIS PROPERTY REVEALS POSSIBLE VIOLATIONS OF THE JEFFERSON PARISH CODE OF ORDINANCES INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

☐ **ILLEGAL DUMPING:** ***Section 16-3(b)*** : No person shall place, deposit or allow to be placed or deposited on his premises or any other premises to include any public street, road or alley any refuse or other objectionable waste, except in a manner described in this chapter.

☐ **PROHIBITION AGAINST TRACKING BY VEHICLES OF FOREIGN SUBSTANCES:** ***Section 16-6(c)*** : Containment of loads on vehicles; prohibition against tracking by vehicles of foreign substances. No person shall drive or move any truck or other vehicle loaded with litter within the parish, unless such vehicle is constructed or loaded as to prevent any load, contents or litter from being blown or deposited upon any street, alley or other public place. **Nor shall any person drive or move any vehicle or truck within the parish, the wheels or tires of which carry onto or deposit, mud, dirt, sticky substances, litter or foreign matter of any kind on any street, alley, or other public place.**

☐ **LITTERING IN DRAINAGE DITCHES AND ON PUBLIC STREETS:** ***Section 16-9(a)*** : It shall be unlawful for any person to dump, throw, place or otherwise dispose of cut grass, weeds, trees or tree limbs, trash, garbage or other debris in any drainage ditch, canal or drainage catch basin or pedestrian walkway in Jefferson Parish.

☐ **LITTERING ON PUBLIC STREETS:** ***Section 16-9(b)*** : It shall be unlawful for any person to dump, throw, place or otherwise dispose of cut grass, weeds, trees or tree limbs, trash, garbage or other debris on any public street, right-of-way or pedestrian walkway in Jefferson Parish by the use of a leaf blower, rake, broom or any other means, unless such debris is immediately thereafter removed from the street and containerized for composting or for proper removal and disposal in accordance with the provisions of Chapter 16 of the Code of Ordinances.

☐ **ILLEGAL DUMPING IN CATCH BASINS:** ***Section 16-9.2(a)*** : The dumping of trash, debris, greases and oils, such as but not limited to cooking oil and fats, motor oil, antifreeze, solvents, truck and automotive fluids, paint, paint thinners, and gasoline into catch basins, drainage culverts, lines, canals or any body of water is prohibited. This prohibition shall not apply to any activity permitted or authorized by a state or federal program. **The fine for violation of part Section 16-9.2(a) above shall be a fine, as provided in L.R.S. 33:1243B(2), not to exceed five thousand dollars ($5,000.00).**

This situation has the potential to clog our drainage system, contribute to street flooding and negatively impact water quality in Lake Pontchartrain and other receiving water bodies. It also creates a safety hazard and has the potential to be harmful to public health.

You must contact the Jefferson Parish Department of Environmental Affairs at 731- 4612 between the hours of 8:30 am to 4:00 pm to schedule an inspection of this site to begin corrective measures.

Continuation of this practice or failure to take immediate appropriate corrective action within ten (10) CALENDAR DAYS of the DATE OF INSPECTION will result in a violation being issued to this address. Additionally you may be required to appear before the Administrative Hearing Officer and fines and hearing costs up to five thousand dollars ($5000.00) per violation may be imposed.

INSPECTOR: Diane Coughlin **DATE:** _____

JEFFERSON PARISH DEPARTMENT OF ENVIRONMENTAL AFFAIRS
4901 JEFFERSON HIGHWAY – SUITE E, JEFFERSON, LA 70121
PHONE: 504-731-4612 FAX: 504-731-4607

CONSTRUCTION ACTIVITIES COURTESY NOTICE

ADDRESS:

IT HAS BEEN REPORTED THAT THERE ARE CONDITIONS ON THIS PROPERTY WHICH MAY BE A SAFETY HAZARD. AN INSPECTION OF THIS PROPERTY REVEALS POSSIBLE VIOLATIONS OF THE JEFFERSON PARISH CODE OF ORDINANCES INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

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INSPECTOR: Diane Coughlin **DATE:** _____

JEFFERSON PARISH DEPARTMENT OF ENVIRONMENTAL AFFAIRS
4901 JEFFERSON HIGHWAY – SUITE E, JEFFERSON, LA 70121
PHONE: 504-731-4612 FAX: 504-731-4607

ILLEGAL DUMPING VIOLATION NOTICE

ADDRESS:

IT HAS BEEN REPORTED THAT THERE ARE CONDITIONS ON THIS PROPERTY WHICH MAY BE A SAFETY HAZARD. AN INSPECTION OF THIS PROPERTY REVEALS POSSIBLE VIOLATIONS OF THE JEFFERSON PARISH CODE OF ORDINANCES INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

☐ **ILLEGAL DUMPING:** ***Section 16-3(b)*** : No person shall place, deposit or allow to be placed or deposited on his premises or any other premises to include any public street, road or alley any refuse or other objectionable waste, except in a manner described in this chapter.

☐ **LITTERING IN DRAINAGE DITCHES AND ON PUBLIC STREETS:** ***Section 16-9(a)*** : It shall be unlawful for any person to dump, throw, place or otherwise dispose of cut grass, weeds, trees or tree limbs, trash, garbage or other debris in any drainage ditch, canal or drainage catch basin or pedestrian walkway in Jefferson Parish.

☐ **LITTERING IN DRAINAGE DITCHES AND ON PUBLIC STREETS WITH LEAF BLOWER:** ***Section 16-9(b)*** : It shall be unlawful for any person to dump, throw, place or otherwise dispose of cut grass, weeds, trees or tree limbs, trash, garbage or other debris on any public street, right-of-way or pedestrian walkway in Jefferson Parish by the use of a leaf blower, rake, broom or any other means, unless such debris is immediately thereafter removed from the street and containerized for composting or for proper removal and disposal in accordance with the provisions of Chapter 16 of the Code of Ordinances.

☐ **ILLEGAL DUMPING IN CATCH BASINS:** ***Section 16-9.2(a)*** : The dumping of trash, debris, greases and oils, such as but not limited to cooking oil and fats, motor oil, antifreeze, solvents, truck and automotive fluids, paint, paint thinners, and gasoline into catch basins, drainage culverts, lines, canals or any body of water is prohibited. This prohibition shall not apply to any activity permitted or authorized by a state or federal program. **The fine for violation of part Section 16-9.2(a) above shall be a fine, as provided in L.R.S. 33:1243B(2), not to exceed five thousand dollars ($5,000.00).**

This situation has the potential to clog our drainage system, contribute to street flooding and negatively impact water quality in Lake Pontchartrain and other receiving water bodies. It also creates a safety hazard and has the potential to be harmful to public health.

You must contact the Jefferson Parish Department of Environmental Affairs at 731- 4612 between the hours of 8:30 am to 4:00 pm to schedule an inspection of this site to begin corrective measures.

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INSPECTOR: Diane Coughlin **DATE:** _____

JEFFERSON PARISH DEPARTMENT OF ENVIRONMENTAL AFFAIRS
4901 JEFFERSON HIGHWAY – SUITE E, JEFFERSON, LA 70121
PHONE: 504-731-4612 FAX: 504-731-4607

ILLEGAL DUMPING COURTESY NOTICE

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4901 JEFFERSON HIGHWAY – SUITE E, JEFFERSON, LA 70121
PHONE: 504-731-4612 FAX: 504-731-4607

WASTE WATER VIOLATION NOTICE

ADDRESS:

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☐ **UNLAWFUL DISCHARGE:** ***Section 27-159(a):*** The discharge of any wastewater into the storm drainage system by any person shall be unlawful.

☐ **DOMESTIC WASTE DISCHARGES:** ***Section 27-159(b):*** All discharges of domestic waste shall be made into the public sanitary sewerage system.

☐ **INDUSTRIAL WASTE DISCHARGERS:** ***Section 27-159(c):*** Discharges of industrial wastes shall be made to the sanitary sewerage system, the storm drainage system, or, with special permission of the director, to a private disposal system.

☐ **PROHIBITED DISCHARGES ON PROPERTY:** ***Section 27-159(d)(1):*** It shall be unlawful for any person to place, deposit or permit to be deposited in any unsanitary manner on public or private property within the parish or in any area under the jurisdiction of the parish any human or animal excrement, garbage, or other commercial or industrial wastes or waste liquids.

☐ **PROHIBITED DISCHARGES IN NATURAL OUTLETS:** ***Section 27-159(2):*** It shall be unlawful to discharge to any natural outlet within the parish or in any area under the jurisdiction of the parish any sewage or other polluted waters, except where suitable treatment has been provided in accordance with subsequent provisions of this division.

☐ **PROHIBITED WASTE DISPOSAL:** ***Section 27-159(3):*** It shall be unlawful to transport any waste materials from one (1) site to another site and subsequently discharge such materials into the public storm drainage system without the express written authorization of the director. Further, it shall be unlawful to discharge any waste materials directly into manholes, storm drains, cleanouts or sampling ports without the express written consent of the director.

☐ **PRIVIES, SIMILAR FACILITIES PROHIBITED:** ***Section 27-159(4):*** Except as hereinafter provided, it shall be unlawful to construct or maintain any privy, privy vault, septic tank, cesspool or other facility intended or used for the disposal of sewage.

☐ **PROHIBITIONS AND LIMITATIONS OF DISCHARGES INTO THE STORM DRAINAGE SYSTEM:** ***Section 27-161(b)*****(1-5) :** General prohibitions and limitations: No person shall discharge or cause or permit to be discharged to the storm drainage system any waste or wastewater containing any pollutant or other material of such character or quantity which either alone or by combination or interaction with other substances will: Constitute a hazard to human or animal life in the storm drainage system or the stream or watercourse receiving the discharge from the storm drainage system.

- Interfere with or damage the system or its efficiency.
- Constitute a hazard to human or animal life in the storm drainage system or the stream or watercourse receiving the discharge from the storm drainage system;
- Violate any standard or effluent limitation;
- Cause the storm drainage system to violate any applicable federal or state water quality standard;
- Violate any of the specific prohibitions or limitations established by subsection (c).

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4901 JEFFERSON HIGHWAY – SUITE E, JEFFERSON, LA 70121
PHONE: 504-731-4612 FAX: 504-731-4607

STORM DRAIN MARKER REQUEST AND INFORMATION FORM

4901 Jefferson Highway, Suite E
Jefferson, LA 70121
Phone: (504) 731-4612

Number of markers requested: As many as we can give.

"Flows to Coastal Wetlands" _____

"Flows to Lake Pontchartrain" _____

Location of Storm Drain Site to be marked:

Subdivision Name or Street Location:_____

Parish_____

City/Town:_____Zip Code: _____

Name of Organization: (_____

Name of Director (or Functional Equivalent):_____

Signature:_____Date:_____

Name of Contact: _____

Phone Number: _____

Fax Number: _____

E-Mail Address: _____

Please Note:

A "Follow-Up" Letter is required to be sent to the Jefferson Parish Department of Environmental Affairs once the storm drain marker activities are complete. The letter should be brief to include the location (address, street name, city), and the number of storm drain markers placed. Please include an estimate of how many volunteers participated in the event. Photos are always welcomed and helpful.

Send to: Jefferson Parish- Department of Environmental Affairs
4901 Jefferson Highway, Suite E
Jefferson, LA 70121
Attention: Sami Khalil

Under the Municipal Separate Storm Sewer Systems (MS4) permit requirement, Jefferson Parish provides the Storm Drain Markers as a tool to increase public environmental awareness to reduce urban nonpoint water pollution.



ONLY RAIN WATER GOES IN THE STORM DRAIN

Non-point source pollution cannot be traced to one discrete point source like a pipe from a factory, but rather comes from many diffuse sources. It is caused by rainfall moving over and through the ground, picking up fertilizers, pesticides, sediment, oil, animal waste, and other pollutants. These pollutants lead to water quality problems and have harmful effects on recreation, fisheries, and wildlife in receiving water bodies like Lake Pontchartrain. Strom water is not treated before entering drains that lead directly to lakes and other water bodies.

SÓLO AGUA DE LLUVIA ENTRA EN EL DRENAJE DE LAS ALCANTARILLAS

Contaminación de fuente puntual no es contaminación que puede atribuirse a una sola fuente, perc proviene de muchas fuentes. Es causada por las lluvias moviéndose sobre el suelo recogiendo fertilizantes, pesticidas, sedimentos, petróleo, desechos de animales y otros contaminantes. Estos contaminantes conducen a problemas de la calidad del agua y tiene efectos nocivos sobre el suministro de agua potable, la recreación, pesca y vida Silvestre. Estos efectos nocivos dependen del contaminante. El agua de lluvia no recibe tratamiento antes de entrar en desagües que conducen directamente a lagos y otros cuerpos de agua.

JEFFERSON PARISH

Department of Environmental Affairs

Storm Water Program

4901 Jefferson Hwy.,
Suite E
Jefferson, LA 70121

Phone: 504-731-4612
Fax: 504-731-4607
Email:
jpenvironmental@jeffparish.net

Jefferson Parish Environmental Affairs

Storm Water Program



KEEP JEFFERSON PARISH CLEAN & GREEN

KEEP LAKE PONTCHARTRAIN BEAUTIFUL

MANTENGA JEFFERSON PARISH LIMPIO & VERDE

MANTENGA HERMOSA Y LAGO PONTCHARTRAIN

WHAT YOU CAN DO

Automobile

- Maintain cars to prevent leaks
- Use containers to catch fluids when working on vehicles
- Do not pour used automotive fluids down the storm drain

Yard

- Do not sweep or blow grass cuttings, leaves, yard wastes into street or storm drains
- Avoid over fertilizing
- Do not pour lawn & garden products into storm drains

Pet Waste

- Pick up & properly dispose pet wastes

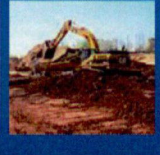
Cooking

- Do not pour used grease or other food waste or wastewater into storm drains
- Clean any grease spills

Construction

- Prevent sand and fill material from running into street and storm drains
- Do not hose concrete wash, sand or mud into street or storm drains
- Do not wash paint brushes off over a storm drain
- Properly containerize trash for disposal





QUE PUEDEN UDS. HACER

Automóvil

- Mantener los coches para evitar fugas
- Usar contenedores para recoger líquidos cuando se trabaja en los coches
- No drenar líquidos de automóvil por el desagüé pluvial

Jardín

- No soplar el césped cortado, hojas, etc. en las alcantarillas
- Evitar excesos de fertelizantes
- No vaciar excesos de fertilizantes o productos del césped por el desagüe de alcantarilla

Residuos de Mascotas

- Recoger y depositar apropiadamente desechos de mascotas

Cocina

- Evite vaciar residuos de grasa en drenajes. Recoger cualquier derrame de grasa
- Evite vaciar residuos de mariscos en por drenajes

Construcción

- Evitar que arena y material de relleno llegue a las calles y en las alcantarillas
- Evitar lavado de concreto, arena y suciedad por el desagüe
- Evite lavar pinceles y brochas sobre el drenaje de las alcantarillas
- Depositar apropiadamente la basura en contenedores





DROP OFF SITES

At the following 2 Trash Drop-off Sites

- 6440 Lapalco Blvd., Marrero
- 400 David Drive, Metairie,

Jefferson Parish residents may drop off automotive waste for recycling:

- 5 gallons/day of used motor oil antifreeze, gasoline & other automotive fluids
- 2 used oil filters per day
- 1 automobile battery per day
- 5 automobile tires per day

Hours of Operation:
Tuesday – Sunday 9:00 am – 5:30 pm
Daylight saving hours 10:00 am -6:30 pm

Lugares de Descarge

En los siguientes 2 sitios hay entrega de basura

- 6440 Lapalco Blvd., Marrero
- 400 David Drive, Metairie

Los residentes de la parroquia de Jefferson pueden dejar residuos automotriz para su reciclaje:

- 5 galones/día de aceite de motor usado anticongelante, gasolina & otros líquidos automotrices
- 2 filtros de aceite por día
- 1 batería de automóvil por día
- 5 llantas de automóvil por día

Horas de Operación:
Martes – Domingo 9:00 am – 5:30 pm
Hora de ahorro de luz diurna 10:00 am - 6:30 pm





Do I need a permit for my construction site?

STEP 1

Are you disturbing an area equal to or greater than one acre, or are you part of a common plan of development that will disturb more than one acre?

- ☐ NC – Your site is not regulated by DEQ or Jefferson Parish. No action is required, however BMP's are encouraged.
- ☐ YES – GO TO STEP 2

STEP 2

Is the disturbed area of your site equal to or greater than 5 acres?

- ☐ NO – GO TO STEP 3
- ☐ YES – Your site is regulated by the large construction general permit (LAR100000). You must submit a letter of intent, prepare a SWPPP, and post a notice near the main entrance of the site.

STEP 3

Is the disturbed area of your site equal to or greater than one acre, but less than 5 acres?

- ☐ YES – Your site is regulated by the small construction general permit (LAR200000). You must prepare a SWPPP and post a notice near the main entrance of the site.

For more information on how to obtain a construction site storm water permit, visit the link below:

http://www.deq.louisiana.gov/portal/DIVISIONS/WaterPermits/LPDESPermits.aspx

DEQ LOUISIANA

Ten Most Common Construction Site Storm Water Violations

Many common storm water violations can be easily corrected. Below is a list of the most common storm water violations at construction sites:

10. Inadequate maintenance of SWPPP

9. Inadequate self-inspection of BMP's

8. Poorly managed washouts (concrete, paint, stucco)

7. Dewatering and other pollutant discharges

6. Improper solid or hazardous waste management

5. No BMP's to minimize vehicle tracking onto the road

4. Inadequate BMP maintenance

3. Poor management of temporary stockpiles

2. Missing and/or misunderstood sediment controls

1. NO PERMIT

Information Provided by:

Jefferson Parish Department of Environmental Affairs
4901 Jefferson Highway, Suite E
Jefferson, LA 70121

Funding for this material provided by:

The Lake Pontchartrain Basin Restoration Program

STORM WATER RUNOFF CONTROL AT CONSTRUCTION SITES

Guidance developed by

JEFFERSON PARISH DEPARTMENT OF ENVIRONMENTAL AFFAIRS

A GUIDE TO DEVELOPMENT, IMPLEMENTATION, AND PERMITTING for

STORM WATER

ON YOUR

CONSTRUCTION SITE

AND REDUCING IMPACTS TO

WATER QUALITY

CONTACT US:

JEFFERSON PARISH DEPARTMENT OF ENVIRONMENTAL AFFAIRS
4901 JEFFERSON HIGHWAY, SUITE E
JEFFERSON, LA 70123
(504) 736-6440
JPENVIRONMENTAL@JEFFPARISH.NET

Common Best Management Practices (BMP's)

Erosion Control

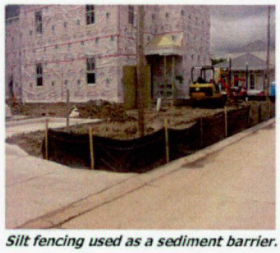
Erosion Control BMP's stop erosion at its source. Examples include:

- Buffer strips
- Temporary Seeding
- Permanent Seeding and Sodding

Sediment Control

Sediment Control BMP's slow down runoff, causing sediment to fall out of suspension and remain on site. Examples include:

- Silt fencing / sediment barriers
- Inlet protection
- Filter strips



Silt fencing used as a sediment barrier.

Site Management Techniques

- Pesticide, herbicide, chemical, and petroleum product control
- Phased construction
- Truck Washouts
- Construction site entrance management

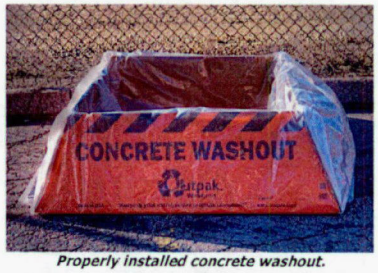


Well maintained site entrance.

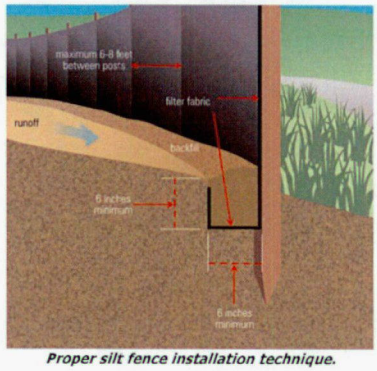
Best Management Practices Proper Implementation Techniques



Properly installed silt fence and construction site entrance.



Properly installed concrete washout.



Proper silt fence installation technique.

Buenas prácticas gerenciales communes

Control de la erosión

Control de la erosión se detiene la erosión en el mismo de la fuente . Ejemplos incluyen:

- zona de separación
- siembra temporal
- siembra permanente y sodding

El control de sedimentos

Control de Sedimentos ralentiza el escurrimiento, provocando que el sedimento se le caiga de suspensión y permanecen en el lugar. Ejemplos incluyen:

- malla protectora
- protección de entrada
- tiras de filtro

Técnicas para el control del sitio

- Pesticidas , herbicidas , química, y de control del producto de petróleo
- contrucción por etapas
- lavado de camiones
- gestión de entrada del sitio de construcción



pintura correctamente almacenados

If you need any assistance with storm water compliance, contact the Jefferson Parish Department of Environmental Affairs:

JEFFERSON PARISH DEPARTMENT OF ENVIRONMENTAL AFFAIRS
4901 JEFFERSON HIGHWAY
SUITE E

(504) 736-6440
JPENVIRONMENTAL@JEFFPARISH.NET

The Jefferson Parish Department of Environmental Affairs



Jefferson Parish Public Works crews clean and flush over 75,000 drains and inlets within 82,000 acres. But we cannot keep this vital infrastructure working properly without your cooperation.

Blowing leaves and grass into the street and leaving it there is a violation of section 16-9(b) of the Jefferson Parish Code of Ordinances which states, *"It shall be unlawful for any person to dump, throw, place or otherwise dispose of cut grass, weeds, trees or tree limbs, trash, garbage or other debris on any public street, right-of-way or pedestrian walkway in Jefferson Parish by the use of a leaf blower, rake, broom or any other means, unless such debris is immediately thereafter removed from the street and containerized for composting or for proper removal and disposal in accordance with the provisions of Chapter 16 of the Code of Ordinances."*

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Phone: 504-731-4612 **Email:** jpenvironmental@jeffparish.net
Fax: 504-731-4607 **Website:** www.jeffparish.net

APPENDIX B: DOCUMENTS

1. Report Evaluating the Feasibility of Retrofitting Existing Flood Control Devices to Improve Water Quality
2. Current List of I&HR Facilities
3. Allowable Non-Storm Water Discharge
4. Current List of LPDES Permitted Dischargers to the MS4

REPORT EVALUATING THE FEASIBILITY OF RETROFITTING EXISTING FLOOD CONTROL DEVICES TO IMPROVE WATER QUALITY

FOR

JEFFERSON PARISH

NPDES MS4 PERMIT

August 2005

Prepared For:

Jefferson Parish, Louisiana

Prepared By:

MWH Inc.
3501 N. Causeway Blvd. Suite 400
Metairie, Louisiana 70002
(504) 835--4252

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Section 1
Background and Introduction

1.1 INTRODUCTION

This report was developed to meet the requirements of Part II.A.4 of Jefferson Parish's (Parish) Municipal Separate Storm Sewer System (MS4) permit issued by the United States Environmental Protection Agency (USEPA) Region VI. The permit has been created by the USEPA under the National Pollutant Discharge Elimination System (NPDES) to address the water quality issues associated with the storm water runoff from the drainage areas included in the MS4 permit. The requirement for this report as stated in Table III.A. of the MS4 permit as follows:

> "Submit summary report of evaluations conducted for existing flood control devices to determine the feasibility of retrofitting to benefit water quality."

The meaning of each phrase from the above permit language will be expanded upon in the next section of this document. In order to provide some perspective on the unique nature of the drainage and flood control system in Jefferson Parish, a detailed history and maps of this system are included in the original MS4 Permit Application submittal and should be reviewed concurrently with this document. Since this document will be used to supplement the previously developed MS4 permit, it is important to have a thorough understanding of the physical system being discussed.

1.2 PROJECT BACKGROUND

The Parish is bound to the north by Lake Pontchartrain, to the east by Orleans and Plaquemines Parishes, to the west by St. Charles and Lafourche Parishes and to the south by the Gulf of Mexico. The drainage areas included in the MS4 are those portions of the Parish adjacent to the Mississippi River (River). The portion of the Parish north of the River is referred to as the East Bank, while the portion south of the River is referred to as the West Bank. Because much of the land in the Parish is at an elevation at or below mean sea level (MSL), the entire East Bank and a portion of the West Bank are surrounded by flood and hurricane protection levees.

The levees bordering the River are at an approximate elevation of 28 feet above MSL, and the levees bordering Lake Pontchartrain, the Barataria Basin and adjacent Parishes average about 16 feet above MSL. The difference in levee elevations is due to the separate nature of the threats against which they protect. The River levees are intended to protect against flood stage water levels in the river, while the other levees are intended to protect against hurricane induced tidal surges from Lake Pontchartrain to the north and from the Barataria Basin to the south.

As a result of this system of levees, there is no gravity drainage discharge outlet from within the MS4. This is a unique system in that storm water is pumped out of the Parish due to its relation to mean sea level. Most MS4s rely on gravity drainage; it is not necessary to pump storm water from these MS4s.

Rainfall occurring within the Parish is removed entirely by a system of conveyance canals and pumps. Over the years, the MS4 has grown into a network of over 280 miles of open drainage canals and ditches for the collection and conveyance of storm water runoff. The canals transport the runoff from the local gravity collection basins to the pumping stations. High volume, low-lift pumps are used at the pumping stations to lift the water from the canals to the higher water surface elevation of either Lake Pontchartrain or to the lakes, bayous and canals of the Barataria Basin. At this time there are no storm water discharges to the River.

1.3 PURPOSE OF REPORT

This report will describe the existing flood control devices, identify those agencies responsible for the construction and maintenance of those devices, summarize potential retrofits, and address the feasibility of implementing those retrofits within the MS4. A summary of the process by which flood control projects, both current and new, are initiated is described in the *Guidance Document for Assessment of Post-Construction Water Quality Impacts from New Flood Control Projects* and the *Guidance Document for Post-Construction Pollutant Controls in Areas of New Development and Re-Development* (MS4 Guidance Documents).

Currently, the Parish is in the midst of major flood control projects, as discussed in Section 3. These ongoing flood control projects have been reviewed extensively by the Parish, and State and Federal Departments for water quality impacts. These projects and ongoing operational procedures of Parish Departments were used as the basis for water quality assessments presented in this report. While the primary objective of the MS4 system is to provide drainage and flood relief, the Parish has also undertaken projects (described later) and policies (described in the MS4 Guidance Documents) that are intended to improve the quality of water discharged from the flood control system.

Section 2
Definitions

The requirements of this report as established by the USEPA and stated in the MS4 permit need to be evaluated by its component sections. These component sections are as follows:

- *"existing flood control devices"*
- *"retrofitting"*
- *"feasibility"*

2.1 EXISTING FLOOD CONTROL DEVICES

For the purposes of this feasibility report, existing flood control devices are defined as the main drainage transmission conduits, open or closed, local drainage pipes, catch basins, and the associated drainage pump stations. These devices may affect the receiving waters of the MS4 and therefore should be assessed for potential retrofit in order to benefit water quality. The levee system surrounding the Parish serves as flood control from potential storm surges from Lake Pontchartrain, the Mississippi River, and the Barataria Basin. The levee system has no direct impact on the quality of storm water and is, therefore, not assessed for potential retrofit.

2.2 RETROFITTING

Retrofitting is defined as the changes made to the existing flood control devices within the Parish boundaries. The potential retrofits discussed in this report are evaluated to determine if the impacts on storm water quality are beneficial, their applicability, and if they merit further investigation. Potential retrofits to the existing flood control devices to benefit storm water quality include chemical addition, detention, biofiltration, infiltration, filtration, and hydrodynamic devices.

2.3 FEASIBILITY

Each potential retrofit was evaluated for feasibility of installation within the Parish, based on the following criteria: the treatability for the pollutants of concern, the potential to be located in the Parish, and the economic feasibility (including construction costs and operational and maintenance costs). The feasibility also addresses whether the retrofits would impede flood waters. Retrofits that are not feasible in the Parish were not considered for further study and investigation. Retrofits feasible within the Parish will require further study beyond this report prior to installation or implementation.

Section 3
Flood Control Devices

This section provides a brief review of the existing flood control system in the Parish and those departments that operate and maintain the system. Projects addressing flood control and water quality that have been considered for Jefferson Parish and neighboring Orleans Parish are also described in this section. Projects that have been considered for Orleans Parish were reviewed due to the similarities of the existing flood control devices in Jefferson Parish. Many of the flood control or water quality projects that are considered feasible for Orleans Parish may also be feasible for Jefferson Parish.

3.1 EXISTING FLOOD CONTROL SYSTEM

Portions of the flood control system were constructed in the MS4 service area before the Parish was formed. The original settlers dug canals to improve drainage and provide lands for development. This process accelerated greatly in recent times with the construction of a system of encircling levees, transmission canals, and pump stations. The construction of these flood control systems allowed development in the Parish to support the current population density.

As described previously in MS4 Guidance Documents, the existing drainage canals within the Parish are either earthen or concrete canals. Both types of canals, regardless of construction, serve as retention basins and provide some level of pollutant removal. The earthen canals with grassy slopes function essentially as biofiltration and infiltration systems by filtering storm water through vegetation and allowing infiltration through the soil. Pollutant removal is evidenced by the regular need for dredging the canals to remove the accumulated sediment.

Many canals have been reinforced with concrete side slopes and riprap bottoms for stabilization and increased capacity. The Parish has an ongoing program to retrofit many of the earthen canals with concrete to increase the capacity of the canals. Depending on the frequency of high intensity rain events and the cleaning schedule for the canals, concrete canals can serve as detention facilities by allowing suspended solids to settle over time. Solids may settle out during low intensity rain events or periods of low flow during dry weather. However, if the canals are not cleaned out before a high intensity rain event, some solids that settled out may be re-suspended and discharged with the storm water. Concrete canals benefit the quality of storm water to a lesser degree than earthen canals.

The Parish routinely undertakes projects to improve the hydraulic transmission capacity of the canal system or increase the discharge capacity of the pump stations, and sometimes to construct new pump stations. Because of the current degree of completeness of the system, most new or future projects focus on increasing the capacity of canals and pump stations. Very few additional pump stations are expected in the near future.

There are several Parish Departments that have varying degrees of control and participation in the improvement, operation and maintenance of the components of the flood control system. In addition, several other governmental agencies also have jurisdiction over components of the flood control system. The jurisdiction and the projects implemented by the Parish Departments and other agencies are discussed below.

3.1.1 Jefferson Parish Department of Public Works

The most recent flood control projects undertaken solely by the Parish began in 1991 with a 53 million-dollar bond issue. These projects included drainage pump station upgrades and construction of drainage canals. Projects funded under this bond issue are completed and in service at this time. The Departments of Drainage and Engineering perform drainage or flood control work within Jefferson Parish's Department of Public Works Engineering Roads and Bridges. In addition, the Department of Capital Projects and the Southeast Louisiana Urban Flood Control (SELA) program office at the Parish also work on flood control projects. Each of these Departments performs different functions within the overall scheme of improving, operating, and maintaining the MS4 system. The following is a brief summary of the activities, relative to construction of new flood control systems, undertaken by each department.

3.1.1.1 Department of Drainage

The Department of Drainage is responsible for the interior components of the MS4 system, i.e., the subsurface drainage lines, the canals leading to the drainage pump stations, and the drainage pump stations. This includes drop inlets and local piping 24 inches in diameter and larger in the unincorporated areas of the Parish. The Parish has four incorporated cities which are copermittees to the MS4 permit: the City of Kenner, City of Westwego, City of Harahan, and the City of Gretna (Cities). The Cities maintain the local drainage lines and catch basins in their respective jurisdictions that discharge to the Parish's canals. The Parish's Department of Streets is responsible for maintaining local piping smaller than 24 inches in diameter in the unincorporated areas of the Parish. One responsibility of the Department of Drainage is to maintain the hydraulic capacity of canals and pipes through dredging, cleaning, and where applicable, construction of new pipe or canal sections.

The Department of Drainage also is responsible for the operation and maintenance of the individual drainage pump stations within the Parish. The department participates in the planning and design process by reviewing plans to assess the functionality of the proposed designs.

Currently, the Department of Drainage is planning and implementing projects to increase the capacity of existing pump stations or to construct new pump stations. On the West Bank, one new pump station will be added to existing drainage basins, and additional pumping capacity will be added to two pump stations. On the East Bank, one new pump

station will be added, and two pump stations will receive capacity upgrades. All of these projects are currently in either the design or the construction phase.

3.1.1.2 Department of Engineering

The Department of Engineering largely handles the design of roadways, bridges, and the local drainage associated with these facilities. The department reviews the contract documents from the Department of Drainage for coordination purposes. The Department of Engineering also reviews construction plans for compliance with the resolution for detention of storm water for proposed developments.

As discussed in previous MS4 Guidance Documents, the Parish has passed a resolution requiring that storm water runoff detention provisions be included in all proposed developments (both new and re-development), other than single family residential, totaling ten thousand square feet or more (all phases). It also requires detention provisions in all single-family residential developments totaling five acres or more (all phases). In many cases, the requirements of the ordinance are met through storm water retention or detention, typically by parking lots, subsurface storage, or constructed ponds. Recreational areas, roof tops, property line swales, and porous pavement are also listed as potential areas for storage of rainfall. Multipurpose use of any rainfall or runoff storage system is encouraged by the Department of Engineering.

Paving requirements within the Parish are recommended by the Department of Engineering in areas of residential off-street parking. Porous pavement or alternative construction materials such as gravel, shell, limestone, or paving stones may serve as infiltration systems. These materials may be used in selected areas where nonporous pavement is typically used. The use of these materials would reduce the volume of storm water runoff that would be generated by nonporous surface and improve the storm water quality with infiltration.

3.1.1.3 Department of Environmental Affairs

The Department of Environmental Affairs is responsible for developing and implementing the programs required by the MS4 permit. The Department of Environmental Affairs works in conjunction with the other Parish Departments that have jurisdiction over the components of the existing flood control structures to implement projects that benefit storm water quality.

3.1.1.4 Department of Planning

As discussed in the MS4 Guidance Documents, the Parish promotes open or green space through zoning. The Department of Planning reviews construction plans and enforces compliance with the green space zoning. Currently, a Parish ordinance requires that ten percent of the vehicular use area be landscaped in addition to green space frontal setbacks. The Parish has also considered requiring side yard setbacks with landscaping. The green spaces that are promoted by the Parish, however, have limited efficiency in

improving storm water quality. Many of the required green spaces in commercial areas are constructed with a surrounding concrete curbing. Storm water runoff from the commercial areas is impeded by the concrete curbs, thus not allowing for biofiltration or infiltration.

3.1.2 East and West Jefferson Levee Districts

The East and West Jefferson Levee Districts (EJLD and WJLD, respectively, or Districts, collectively) operate as autonomous agencies created by the Legislature of the State of Louisiana. The Districts were created for the sole purpose of improving, operating and maintaining the levee systems that encircle the MS4 service area. The funding for the Districts is derived from local Ad-Valorem taxes. A portion of these revenues is used as the local matching portion in a cooperative agreement with the U.S. Army Corps of Engineers (Corps of Engineers).

The Districts differ somewhat in their current and future projects due to the development history of the Parish. The majority of the East Bank is developed, and there are no additional land areas that can be incorporated into the MS4 area with a new levee system. Therefore, the EJLD focuses on projects that maintain and improve the existing levee system.

The EJLD has constructed a retention dike approximately 14 to 18 inches high at the toe of the levee along Lake Pontchartrain. The retention dike extends along the levee in Jefferson Parish from the St. Charles Parish line to the Orleans Parish line. The retention dike serves to retain storm water that is accumulated as the runoff directly from the sloped levee. In the area between the levee and the adjacent residences, the retention dike accumulates the storm water runoff. The EJLD constructed the dike to prevent flooding in residences immediately adjacent to the Lake levee. The retention dike allows storm water to filter into the ground, which is eventually drained and pumped into Lake Pontchartrain.

The West Bank is experiencing growth and development that is anticipated to continue into the future. The WJLD has developed plans and routes for the construction of new levees to protect areas that are not currently leveed, but that are likely to develop as this additional protection system is completed. These new hurricane protection levees are currently under construction.

The projects undertaken by the Districts are coordinated through the Corps of Engineers. The design of projects, whether developed directly by the Corps of Engineers or by consultants, is submitted to the Corps of Engineers for permitting and environmental review.

3.1.3 Copermittees

As previously defined, there are four incorporated cities within the Parish that are copermittees to the MS4 permit. The Cities each maintain local drainage lines and catch basins within their jurisdiction. However, the Cities rely upon the Parish to provide a significant portion of flood control by maintaining the drainage canals and drainage pump stations.

The Louisiana Department of Transportation and Development (LDOTD) is also a copermittee to the MS4 permit. The LDOTD improves and maintains the state highways within the MS4 service area as well as the flood control devices along the state highways. The LDOTD does not develop or pursue projects that would be considered flood control in the context of this report. Although local drainage is an issue with every LDOTD project, it is the LDOTD's policy that state highways not be used for interbasin drainage. This means that their policy does not allow for the conveyance of storm water from the MS4 service area parallel to highways, within the rights of way. In this way the LDOTD effectively turns the maintenance of local flood control systems over to local authorities. The LDOTD does, of course, accommodate the drainage that must cross its rights of way, and participates in the review and permitting of these crossings.

In summary, the LDOTD assists in permitting the physical infrastructure needed to accommodate drainage flows, but does not define the needs for flood control or assess water quality impacts from drainage crossings. All LDOTD projects would be subject to the same permitting process as projects through the Parish or Corps of Engineers. Additionally, the LDOTD often prepares a "Solicitation of Views" that is sent to the appropriate agencies, including the Parish, during the conceptual design phase of a project requesting feedback on the proposed project.

3.2 EXISTING AND ANTICIPATED FUTURE PROJECTS

3.2.1 Coastal Zone Management

The Louisiana Department of Natural Resources (DNR), Coastal Management Division (CMD), approves construction projects through permitting, and DNR's Coastal Restoration Division (CRD) implements projects that create, protect, and restore Louisiana's wetlands. Most coastal restoration projects are funded through the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) and are implemented by DNR and federal agencies on the CWPPRA Task Force. The proposed projects are, assessed for impact on water quality. Wetland projects are required to have minimal impact on the receiving water bodies, as defined by the Coastal Zone Management Program and the Louisiana Department of Environmental Quality. These Coastal Zone Management projects are evaluated, budgeted and approved through a joint effort of the Corps of Engineers, the USEPA, the Natural Resources Conservation Service, the National Marine Fisheries, the U.S. Fish and Wildlife Service, and the State of Louisiana.

The DNR, CMD is a regulatory agency that regulates projects (land use) in the Louisiana coastal zone, which directly or significantly impact coastal waters. Examples of regulated projects include:

a) Projects affecting more than one water body,
b) Projects involving federal funds or state-owned lands,
c) Projects related to oil and gas exploration activities, and
d) Projects that may affect regional, state, or national interests.

For projects involving federal funds, such as the SELA program, the CMD reviews the proposed project for consistency with the directives and goals of the Coastal Zone Management Program. The primary goal of the Coastal Zone Management Program is to prevent unnecessary loss of coastal wetlands. Therefore, proposed projects are evaluated based on potential negative impacts to the coastal wetlands, and methods of eliminating or mitigating these impacts are investigated.

3.2.2 The SELA Program

Many ongoing flood control projects within Jefferson and Orleans Parishes are implemented under the SELA program. SELA is a 430 million-dollar flood control program established as a cooperative agreement between the Parish governments and the Corps of Engineers. The SELA program was reviewed by the Corps of Engineers at the reconnaissance stage for potential environmental impacts, as described in the *Jefferson and Orleans Parishes, Louisiana Urban Flood Control and Water Quality Management Reconnaissance Study*, July 1992 (Reconnaissance Study). The selection process for implementation and funding of specific projects under SELA is not based on the benefit to water quality, but rather based on the ability to reduce flooding. Prior to implementation, the SELA projects are, however, re-evaluated in greater detail by the Coastal Zone Management to address the water quality impacts from construction and future operations of the projects on the receiving water bodies. The construction projects under the SELA program address improvements and capacity expansion of the existing flood control system. Projects include widening and lining drainage canals and expanding pump stations.

Following is a description of the flood control projects that were reviewed, evaluated, or proposed in the Reconnaissance Study that may benefit storm water quality. These projects have not been authorized for implementation under SELA. The federal authorization for the SELA program is the Water Resource and Conservation Act of 1996. This Act authorizes the SELA program to implement drainage and flood control projects, but not water quality projects. Although these projects have not been authorized under the SELA program, they could feasibly be investigated for implementation by another agency.

3.2.2.1 In-Lake Wet Detention Ponds

The Reconnaissance Study evaluated the preliminary design and construction costs for in-lake wet detention ponds, or constructed wetlands, at twelve drainage outfall canals in Jefferson and Orleans Parishes (five in Jefferson Parish and seven in Orleans Parish). The purpose of the project was to reduce storm water contaminants in nearshore waters. The study estimated the approximate area affected by the construction and anticipated increased turbidity, temporary loss of benthic habitat, and the possible release of sediment bound pollutants during construction. The water treatment mechanisms created by either the wet detention ponds or the constructed wetlands may include flocculation, sedimentation, filtration, and biodegradation, depending on the specific system.

Possible negative effects of these projects included: 1) localized water quality impacts during the dredging and plant harvesting necessary to maintain these systems (these impacts include temporary increase in turbidity and potential release and redistribution of sediment bound pollutants with a simultaneous drop in dissolved oxygen levels), 2) disruption of littoral drift and nearshore circulation patterns affecting the mixing of the fresh and brackish waters and, therefore, affecting salinity, and 3) increased fecal coliforms due to the waterfowl attracted to these areas. The study concluded that the water quality improvement to Lake Pontchartrain created by the constructed wetlands would support primary contact for recreation and would improve the fishery habitat.

3.2.2.2 Maxent Marsh and Canal Project

SELA proposed construction of a canal and wetlands in Orleans Parish to convey and detain the first inch of storm water from nearby residential areas before discharge into the Maxent canal. The constructed marsh and canal would have long-term water quality benefits, and would provide pollutant removal, particularly of nutrients, turbidity, and dissolved solids. The project required acquisition of approximately 330 acres of brackish to intermediate marsh for the construction wetland area. Of this property, approximately 25% would suffer permanent loss of vegetation and wildlife habitat due to their burial or removal during construction with the potential loss of productivity in the remaining area.

3.2.2.3 Lake Cataouatche and Bayou Segnette Borrow Canal Project

The SELA Program proposed a project in the Parish to divert a portion of storm water away from Bayou Barataria to discharge to Lake Cataouatche via natural wetlands. This project involves construction of diversion channels and borrow canals to divert the first inch of storm water runoff from the Ames and Cataouatche No. 1 Pump Stations for gradual release into the natural marsh surrounding Lake Cataouatche. The project is anticipated to have long-term water quality benefits. The large detention capacity of the borrow canals would reduce stormwater contaminates by allowing sediment bound contaminants to settle. The natural wetlands would also improve water quality by means of biofiltration of contaminates previous to discharge into the receiving waters of Lake Cataouatche and/or Bayou Segnette.

3.2.2.4 Drainage Pump Station to the Mississippi River

Another project proposed in the Parish by the Corps of Engineers to be included under the SELA program involves the construction of a drainage pump station in the City of Harahan on the East Bank of the Parish to pump storm water directly to the Mississippi River. The proposed pump station would divert a portion of storm water away from Lake Pontchartrain to the Mississippi River. The project was approved by the Corps of Engineers Headquarters in Washington, D.C. based on a local Corps of Engineers Section 533-D Feasibility Design Report. In this report, the Corps of Engineers recommended the project for implementation based on environmental acceptability and hydraulic modeling results. The hydraulic model showed stage lowering in the East Bank canal system and reduction in potential flood damage. The 1,200 cubic feet per second (CFS) Harahan Drainage Pump Station is currently under design.

3.2.3 Corps of Engineers

The Corps of Engineers also implements projects in conjunction with the Parish that are not under the SELA program. The following project was implemented as a demonstration project to benefit storm water quality. This project was not funded by the SELA program.

3.2.3.1 Storage and Treatment of First Flush

In 1992, Dixon and Cunningham Consulting Engineers performed a feasibility study of capturing the first flush of storm water from a residential area for treatment at a storm water or wastewater facility. The East Bank of the Parish was selected as the study area since it has one drainage system and one primary wastewater facility. The study estimated that 400 million gallons of storage volume would be required for 0.5 inch of storm water for the East Bank. The study proposed to accommodate the required storage volume within the existing drainage canals provided that all major canals are drained prior to rain events. The estimated time required to treat the first flush storm water was four days.

The proposed force main and pump station to pump the first flush of storm water to the East Bank Wastewater Treatment Plant were constructed in 1999. The funding for this project was provided through a cost sharing agreement between Jefferson Parish and the Corps of Engineers. The pump station consists of four 5,000-gpm pumps that discharge into a 54-inch force main eventually leading to the East Bank wastewater treatment plant. The pump station was intended to pump the first 0.5 inches of stormwater and could be used as a redundant wastewater pump station should the downstream pump station or force main fail.

In conjunction with this project, the Corps and Jefferson Parish conducted limited pre-implementation sampling at six (6) sampling stations within the canal system and two (2) sampling stations within Lake Pontchartrain to determine the effects of the project on water quality. However, during the sampling period, many of the canals in the system

were either dammed or otherwise disturbed by SELA construction projects. Therefore, the results of the water quality sampling were inconclusive since the effects of the pump station project on the system could not be separated from any effects resulting from the SELA construction projects. The anticipated post-implementation sampling was not conducted due to lack of funding, and the project has been abandoned.

3.3 HISTORICAL PROJECTS CONSIDERED

3.3.1 Storm Water Disinfection Demonstration Project

During 1972, Orleans Parish conducted a temporary demonstration project using sodium hypochlorite (NaOCl) at a dosage of 100 grams per liter (g/L) NaOCl to treat storm water pumped from the City of New Orleans into Lake Pontchartrain. The results of the study are as follows:

- Coliform densities in the treated water were greatly reduced. Treated water with 0.5 milligrams per liter (mg/L) chlorine residuals (total) had total coliform removal efficiencies of 99.99%.
- Total coliform rapidly recovered to previous levels, although fecal coliform did not.
- Long term fecal coliform levels were reduced by one order of magnitude at each outfall canal.

Disinfection of storm water by chlorination causes serious environmental concerns as the chlorine may form chloramines, which are acutely toxic to aquatic life. Therefore, this demonstration project was not recommended for wide-scale or long-term implementation. Dechlorination of the water following the chlorine addition is an option to reduce chlorine residuals and reduce the production of chlorine related by products. However, the study did not include an investigation of dechlorination options and its feasibility.

3.3.2 East Beach Project

In 1989, the Orleans Levee District Board of Commissioners proposed the development of constructed wetlands along the shore of Lake Pontchartrain in East New Orleans. The proposed East Beach Project would provide public access to the Lake and improve storm water quality. The project proposed to reclaim an area of open water on the south shore of Lake Pontchartrain, adjacent to the Lakefront Airport and south shore harbor. The proposed wetland habitat and storm water system consisted of 124.1 acres to treat storm water.

The wetland habitat was designed to filter and treat storm water from the St. Charles Canal Pump Station. The storm water from the pump station outfall was designed to discharge through either a primary or secondary wetland system. The primary system included a forebay, wetland cell, impoundment structures and hydraulic control structures. It consisted of three separate cells in order to allow better control of the depth and flow of water and allow for maintenance procedures on one cell while two would

remain in operation. The primary system was designed for treatment of the first flush of storm water runoff.

The project was studied for feasibility, and the design of the system was completed. However, the project has not obtained funding and, therefore, has not been constructed.

3.4 SUMMARY

As noted in previous MS4 Guidance Documents, the Parish has made significant efforts to provide water quality improvements in the existing flood control system. The Parish has made additional efforts to improve storm water quality that are not retrofits to the existing flood control system. Non-retrofit efforts to improve storm water quality include techniques for cleaning the components of the flood control system, preventing non-storm water discharges from entering the drainage system in the first place (source controls), and public education on storm water quality.

Through the years, numerous flood control projects have been evaluated and/or implemented within the Parish. To date, the projects have been designed to prevent flooding and increase pump station capacities, and have taken precedence over projects designed specifically for water quality improvement. However, the water quality and environmental effects of these projects are studied and evaluated prior to implementation. If applicable, the proposed projects are modified to address the quality of storm water.

Section 4
Potential Retrofits and Feasibility Assessment

4.1 INTRODUCTION

Potential retrofits for improving storm water quality, or pollutant controls, typically occur within six general categories: 1) chemical addition, 2) detention, 3) biofiltration, 4) infiltration, 5) filtration, and 6) hydrodynamic devices.

For each of the general categories, a description is given for the retrofit devices. Each retrofit category was evaluated for the feasibility of physically locating the technology within the existing flood devices or within the Parish boundaries. The potential retrofits were discussed with the Parish Department of Public Works (DPW) and those Agencies that perform additional projects within the Parish, as defined in Section 3. The intent of this section is to present the feasibility assessment of the potential retrofits along with the discussion feedback received from the Parish Departments that operate and maintain the existing flood control devices.

If the potential storm water quality retrofits were determined to be feasible for installation within the Parish, the feasible retrofits are described in further detail with typical construction costs, operational and maintenance requirements, and the ability to remove pollutants of concern. The pollutants of concern were determined from the list of parameters that are monitored as a part of the requirements of the NPDES permit. The significant pollutants of concern fecal coliform bacteria, oil and grease (O&G), and nutrients.

The potential retrofits were also evaluated for their ability to allow bypass of peak storm water flows. Jefferson Parish is flat and largely below sea level and receives over 60 inches of rainfall a year; therefore, retrofit devices cannot impede the discharge of storm water that could create flooding problems within the Parish. During peak or high storm water flows, the main objective is to pump storm water out of the Parish as quickly as possible to prevent flooding. Any retrofit installed within the existing flood control devices must not impede the discharge of storm water during high flows. Peak storm water flows can be defined as the maximum capacity of the existing flood control devices. The majority of the subsurface drainage system is designed based on a 2-year storm event (6.25 inches within 24 hours). The newest subsurface drainage systems, the drainage canals and retrofit projects are designed for a 10-year storm event (9.25 inches within 24 hours).

Lower concentrations of pollutants are typically associated with peak storm water flows as compared to the higher pollutant concentrations associated with low flow. The pollutant concentration during peak flow is lower than the concentration of pollution during low storm water flows since high flows provide a degree of dilution. Thus, the ability of potential retrofits to treat peak flows is not as significant as the ability to treat low flows.

Many of the construction cost estimates were obtained from an ongoing study performed by the California Department of Transportation (Caltrans). Caltrans began pilot studies in 1997 to retrofit existing facilities with structural Best Management Practices (BMPs) to benefit storm water quality. Other construction cost estimates and operational and maintenance cost estimates are based on existing installations within other cities and quotes from equipment manufacturers.

The USEPA, through the American Society of Civil Engineers, has compiled a National Storm Water BMP Database with input from local jurisdictions, states and other organizations. This database, which includes evaluation data and associated design information for BMPs that benefit storm water quality, is continuously being updated. The database was used to obtain information on available technologies and the efficiency of pollutant removal from existing installations.

4.2 CHEMICAL ADDITION

The category of chemical addition systems that benefit storm water quality can be further classified as disinfection systems or solids removal systems. Both disinfection and solids removal systems require chemical storage tanks and chemical feed equipment. These systems would require a secure location for the installation of the equipment and a risk management plan to address the maintenance procedures to mitigate and respond to potential chemical releases. The chemicals used for disinfection and solids removal cause an environmental and health concern if released into the atmosphere. The chemical systems require special handling by, and training of, the maintenance personnel.

4.2.1 Disinfection

4.2.1.1 Description

Disinfection has proved an effective treatment of pathogens and other disease-causing organisms. The chemicals used for disinfection systems are powerful oxidants and extremely hazardous materials. Disinfection options include ultraviolet radiation, chlorination, ozonation, use of chlorine dioxide, and chlorination/dechlorination with sodium hypochlorite and sodium bisulfite. As previously discussed, a disinfection system typically consists of chemical storage tanks, chemical feed pumps, and additional chemical feed equipment.

The effectiveness of disinfection is dependent on many factors including contact time, concentration of the disinfectant, type of chemical disinfectant, and the water characteristics such as temperature, pH and water quality. A disinfection system requires significant contact time, and is therefore typically used in conjunction with a detention or retention basin. A dechlorination process following chlorine addition would also require a detention or retention basin. In addition, if chlorine gas is stored in quantities greater than 2,500 pounds, a risk management plan is required.

4.2.1.2 Feasibility

The majority of the disinfection systems are costly to construct, maintain and operate. Ozone contact system produce off-gases that are odorous and require additional treatment and disposal costs. Ultraviolet systems are typically submerged into the water and require frequent cleaning due to biological fouling, and would impede the flow of stormwater. The chlorination/dechlorination system has lower associated comparative costs than ultraviolet radiation and ozonation. Ultraviolet radiation and ozonation are therefore not considered feasible due to their high construction, operation and maintenance costs, and other hydraulic and environmental concerns.

Chlorination/dechlorination systems installed within the existing flood control devices would need to be located within a secure, monitored area. The chlorine disinfection system could feasibly be located within an existing drainage pump station, which falls under the jurisdiction of the Parish Department of Drainage Pump Station. Several of the drainage pump stations within the Parish are large enough to accommodate a disinfection system and provide a secure, monitored area for the equipment. Detention or retention basins, however, would be required to provide significant contact time for chlorination and an additional contact basin for dechlorination. Due to the limited availability of land area adjacent to existing drainage pump stations for detention basins, a chlorination/dechlorination system is not considered feasible within the Parish. In addition, public health and environmental concerns associated with accidental release of chlorine, and the high construction, operation and maintenance costs limit the feasibility of the system.

4.2.2 Solids Removal

4.2.2.1 Description

Chemical precipitation involves the addition of chemicals to alter the physical state of dissolved and suspended solids and to facilitate their removal by sedimentation. Over the years, a number of different substances have been used as precipitants, the most common of which are alum (aluminum sulfate), ferric chloride, ferric sulfate, ferrous sulfate, and lime. These chemicals may be added to storm water in a dry form or as liquids.

The system for dry chemical feed requires a storage silo for the chemical and a feeding device, such as a volumetric screw, to introduce the chemical to the water. The potential for the chemical to become airborne causes an environmental concern for dry feed systems. Liquid chemical feed requires a storage tank for the chemical and a metering pump to apply the chemical to the water. This liquid system is much more simple and clean than the dry chemical feed system. As with any chemical system, proper chemical handling practices must be carefully followed.

After the chemicals have been added to the water, a detention or retention basin is required to provide time for floc to form and settle. Once settled, the solids must be periodically removed from the basins. The collection and disposal of the solids can be a

labor intense and a costly task and should be taken into careful consideration when designing these systems.

4.2.2.2 Feasibility

Solids removal systems installed within the existing flood control devices would need to be located within a secure, monitored area. The chemical addition system could feasibly be located within an existing drainage pump station, which fall under the jurisdiction of the Parish Department of Drainage Pump Station. Several of the drainage pump stations within the Parish are of sufficient size to accommodate a chemical feed system and provide a secure, monitored area for the equipment. However, the detention or retention basins would be required to provide significant time for solids to settle. Due to the limited availability of land area adjacent to existing drainage pump stations for detention basins, a solids removal system with chemical addition is not considered feasible within the Parish. In addition, the frequent removal and disposal of solids and the high construction, operation and maintenance costs also prohibit the feasibility of the system.

4.3. DETENTION

There are two types of detention basins: dry detention and wet retention. The dry detention system acts as a drainage facility and is designed to control the peak flow rate of a larger storm event. The wet or extended retention basin is designed to capture and release a smaller storm over a specified period of time, typically 12 to 40 hours.

One detention basin project that has been implemented by the Parish is the construction of wet retention basins at the Clearview Parkway—Earhart Expressway exchange.

4.3.1 Dry Detention Systems

4.3.1.1 Description

Dry detention systems, also referred to as dry detention basins or ponds, temporarily detain a portion of storm water runoff for a certain length of time before slowly releasing the storm water. These devices are, therefore, designed to dry out between rain events. The principal reasons for use of dry detention ponds are to reduce peak storm water discharges, control flooding, and prevent downstream channel scouring. Pollutants are removed by allowing particulates and solids to settle out of the water. Detention facilities can be concrete-lined holding tanks or earthen basins.

Dry detention basins are generally not suited for high-density residential developments since they require a large land area for installation. If the detention basin is an earthen pond, they function better in areas with sandy, permeable soils. The slow release of a small storm requires an outlet control such as a V-notch weir, or an orifice. In order to provide a slow release of the captured storm water, the outlet control is typically small. To prevent the outlet control from clogging with debris and should be maintained frequently.

Detention facilities store storm water runoff for a period of time prior to its controlled release through an outfall to a receiving water body. Detention facilities usually serve residential catchments of 5 to 50 acres, but extended detention facilities are also installed for small commercial developments of 0.25 acre.

4.3.1.2 Feasibility

A typical detention facility has minimal design and construction requirements, and they are relatively easy to maintain. A detention pond does require a designated land space. The area required for the detention pond is dependent on the volume of storm water that will be collected from the catchment area.

The Parish currently requires that storm water runoff volumes from new and re-developments not exceed the volumes that occurred prior to development. Detention systems are capable of removing suspended solids from low storm water flows and accommodating peak storm water flows (offering flood protection). They are also considered to be more economical than increasing downstream conveyance capacity. Detention facilities designed for small catchment areas may be feasible for retrofit installation for the Parish. The Parish requires detention facilities in areas of new and re-development, mostly those that involve detaining water in a parking lot. The primary purpose of these facilities in the Parish is for preventing flooding of adjacent roads.

The maintenance of detention facilities, such as constructed parking lots or retention ponds, would require occasional maintenance to remove solids accumulated after storm events. The removal efficiency of solids, metals, organic matter, and fecal coliform in detention basins is moderate.

4.3.1.3 Cost Estimate and Existing Installations

According to the Caltrans study, the construction cost for dry detention basins ranges in price from $27,000 to $114,000 for treatment of storm water flow at 1 cubic feet per second (cfs). Maintenance of these basins varies widely but can also be costly. Maintenance includes frequent mowing and cleaning to unclog the basin inlet and outlet. Sediment should also be cleaned out every 10 to 20 years depending on the depth or solids storage capacity of the basin. Parking lots constructed to retain storm water or retention ponds would typically be located on private property. The property owner is responsible for construction and maintenance costs.

There are several existing detention facilities, specifically parking lots, within the Parish. The newly developed parking lots are designed with subsurface drainage to detain storm water and slowly release the storm water over time through constructed weirs. Ponds are not feasible in most parts of the Parish due to limited land area, the high water table and impermeable soils.

4.3.2 Wet Retention Systems

4.3.2.1 Description

Wet retention implies permanent storage, and these systems maintain a residual water volume between rain events. These retention systems also lessen the impact of rainfall events by reducing peak flows, and they improve water quality by the settling of suspended particulates, biological uptake, and decomposition of some pollutants. Wet retention basins are generally not suited for high-density residential developments since they require a larger land area for installation than dry detention basins.

4.3.2.2 Feasibility

A typical retention basin has minimal design and construction requirements, and they are relatively easy to maintain. A retention basin does require a designated land space, and the land area required for retention basin is dependent on the volume of water that will be collected and stored. As previously discussed, the Parish currently requires that storm water runoff detention provisions be included in both new and re-developments. This may include retention ponds. The Parish has limited land area available for large retention basins. Wet retention facilities designed for small catchment areas are feasible for retrofit installation, in areas where there is sufficient land available for retention basins.

The maintenance of wet retention facilities would require occasional maintenance to remove solids accumulated after storm events. The pollutant removal efficiency of solids, metals, organic matter, oil and grease, nutrients, and fecal coliform in wet retention basins is moderate.

4.3.2.3 Cost Estimate and Existing Installations

Construction costs for wet retention basins can be high because the pond must be large enough to hold the required volume of runoff and to contain the permanent pool of water. According to the Caltrans study, the construction cost for a wet retention basin is approximately $315,000 for treatment of storm water flow at 1-cfs. The Reconnaissance Study, discussed in Section 3, estimated the gross investment required for wet retention pond construction at $340,000 per acre of land used for pond creation. This Reconnaissance Study did not provide a cost estimate based on flow capacity.

Maintenance costs are estimated at 3-5% of the construction cost per year. Wet retention systems require regular inspection, removal of sediment after 10 to 20 years, mowing, and cleaning and repair of inlets and outlets. Due to their large size, wet retention basins may not be well suited to very small developments with limited land area. They are more effective in areas with heavy clay soil where drainage is poor, which is typical for soils in the Parish. Constructed retention ponds would typically be located on private property. The property owner is responsible for the construction and maintenance costs.

The city of Pearland, Texas is utilizing wet retention ponds for storm water runoff. A program in Pearland encourages developers to purchase land in city-owned ponds as compensation for increased water runoff caused by new construction. Developers mitigate flood hazards by purchasing 0.2-0.6 acre-feet of retention space for every 1 acre of development.

4.4. BIOFILTRATION

Biofiltration reduces pollutant loadings by filtering storm water through vegetation. The vegetation removes contaminants through the uptake of nutrients and metals, and by physically slowing water flow to allow for removal of solids.

Numerous biofiltration processes are commonly employed throughout the United States, including constructed and natural wetlands, earthen canals, filter strips, and vegetated swales. Constructed wetlands are simulated wetlands where vegetation indigenous to natural wetlands is planted. Filter strips are areas of flat to slightly sloped property containing trees, shrubs, and/or grasses over which storm water flows in a sheet flow fashion. Swales are wide shallow ditches that are lined with vegetation.

4.4.1 Constructed Wetlands

4.4.1.1 Description

Constructed wetlands are engineered systems that can provide many of the water quality improvement functions of natural wetlands with the advantage of control over location, design, and management to optimize those functions. Constructed wetlands can be used to reduce storm water runoff peak discharges as well as improve water quality. There are two basic types of wetland systems used to treat wastewaters: (1) free water surface wetlands, and (2) subsurface flow wetlands.

Free water surface wetlands are similar to natural wetlands. They have a carefully graded soil bottom to maintain uniform flow and inlet and outlet control structures to control water depth and regulate distribution. The water level is maintained above the ground surface, and the vegetation is rooted and emergent above the water surface. The water flow is primarily above ground. The pollutant removal processes include the purely physical processes of sedimentation via reduced velocities and biofiltration by vegetation.

Subsurface flow wetlands systems incorporate the same components described in the free water surface wetlands but also include media such as rock, gravel, and soil. The water level is kept below the top of the media, so the water flows trough the media bed. This type of system can also be referred to as vegetated submerged bed, root zone method, and rock reed filter. Subsurface systems have smaller capacities than the free water surface wetlands; subsurface systems offer a greater surface area for microbial activity, which is provided by the media. Pollutant removal rates are therefore higher for subsurface flow wetland systems than for free water surface wetlands.

4.4.1.2 Feasibility

Constructed wetlands do require a designated land space, and the area required is dependent on the volume of storm water that will be collected from the catchment area. The local climate in Jefferson Parish is ideal for the wetland ecosystem, as evident by the natural wetlands that have formed in the Parish. Constructed wetlands may be feasible for retrofit installation within the Parish boundaries, where the required land is available.

As previously discussed in Section 3, the Parish and neighboring Orleans Parish have considered the installation of constructed wetlands in several drainage outfall locations, including the Bonnabel Canal and Duncan Canal. The Reconnaissance Study performed by the Corps of Engineers evaluated the ability of in-lake wet detention ponds, or constructed wetlands, to treat storm water at five drainage outfall canals in the Parish. The East Beach Project by the Orleans Levee District also evaluated the feasibility of constructed wetlands along the East New Orleans Lakefront to treat the first flush of storm water. Locations of proposed constructed wetlands have been identified in the above referenced reports for both the East and West Bank of the Parish.

Constructed wetlands are capable of accommodating peak flows. Wetland systems provide moderate to high removal of solids, organic matter, and nutrients. Oil and grease are effectively removed through impoundment, photodegradation, and microbial action. Pathogens are also removed by sedimentation, filtration, natural die-off, and UV degradation. Dissolved constituents tend to have lower removal efficiency. Removal efficiencies for metals vary but are consistently high for lead, which is often associated with particulate matter.

Constructed wetlands have significant design and construction requirements, although they require low to moderate maintenance. During the first two years, it is extremely important that nuisance vegetation is removed quarterly from constructed wetland facilities; this will insure a thriving and healthy wetlands. Subsequent maintenance comprises annual inspection for erosion, and outlet blockage, in addition to inspection of the integrity of the facility after major storms events. Additionally, these plants provide a highly desirable food source for the large nutria (*myocaster coypus*) population in the Parish. This would require significant plant replacement on a monthly basis which makes this option not very feasible until the State of Louisiana allows and promotes additional hunting of nutria. Every 7 to 10 years, the vegetation and accumulated sediment should be removed.

4.4.1.3 Cost Estimate and Existing Installations

The construction costs of created wetlands are higher than the associated construction costs for wet retention basins. According to the Reconnaissance Study by the Corps of Engineers, the gross investment required for constructed wetlands creation is approximately $407,000 per acre of wetland created. The longevity is typically 20 years or more.

In Clinton, Maryland, a constructed wetland basin was created to treat storm water runoff. The wetlands located in Queen Anne County treated flow from a 16-acre drainage basin. The drainage basin included a high school and parking areas, and was mostly impervious. The wetland treatment of storm water effectively reduced suspended solids, nitrogen, and phosphorus. A similar constructed wetlands system would be feasible within the Parish at the drainage outfalls and possibly in developments where the required land is available.

Although constructed wetlands have a higher associated construction cost than other retrofit options, annual operational and maintenance costs of constructed wetlands are generally minimal; however, due to the severe nutria problem within the Parish maintenance costs would be significant.

4.4.2 Natural Wetlands

4.4.2.1 Description

The ability of natural wetlands to improve water quality is widely recognized. Wetlands, because of their unique position in the landscape, naturally receive storm water. However, when considering diversion of storm water flows to a natural wetland, it is important to consider that wetlands have a limited capacity for handling increased flows or additional pollutant loadings. Wetlands may be impacted or altered by the introduction of an additional storm water source. Therefore, storm water management techniques specifically designed to mitigate these impacts should be used to offset some the increased volumes and velocities of runoff that cause changes to wetlands. The pollutant removal processes of wetlands include the physical processes of sedimentation via reduced velocities and biofiltration by vegetation.

4.4.2.2 Feasibility

The foremost requirement to retrofit natural wetlands for storm water pollutant control is the proximity of natural wetlands to storm water discharges. Diverting storm water discharge into natural wetlands is highly feasible on the West Bank of the Parish, where they are located. The retrofit would require the construction of diversion canals to divert storm water runoff to wetland areas and modifications to existing storm water pimp stations.

As previously discussed in Section 3, the Parish and neighboring Orleans Parish have considered the installation diversion canal to natural wetlands. The Maxent Marsh and Canal Project was proposed by the Corps of Engineers to convey and retain the first inch of storm water from nearby residential areas in Orleans Parish. The Lake Cataouatche and Bayou Segnette Borrow Canal Project also proposed by the Corps of Engineers involves construction of diversion channels and borrow canals to divert the first inch of storm water runoff from Bayou Barataria for gradual release into the marshes surrounding Lake Cataouatche.

Natural wetlands are capable of accommodating peak flows; however, wetlands may be altered by a significant increase in flow. As discussed above, wetland systems provide moderate to high removal of solids, organic matter, and nutrients. Oil and grease are effectively removed through impoundment, photodegradation, and microbial action. Pathogens are also removed by sedimentation, filtration, natural die-off, and UV degradation. Dissolved constituents tend to have lower removal efficiency. Removal efficiencies for metals vary but are consistently high for lead.

Natural wetlands have low construction and maintenance requirements. Maintenance comprises annual inspection for erosion, and outlet blockage, in addition to inspection of the integrity of the facility after major storms.

4.4.2.3 Cost Estimate and Existing Installations

The construction costs are relatively low and required operational and maintenance costs are minimal. The retrofit of pump stations to discharge to existing natural wetlands has significantly lower construction costs compared to construction costs associated with constructed wetlands.

In Tampa, Florida, a natural wetland basin was studied to treat storm water runoff from a 15-acre drainage basin. Approximately half of the drainage basin was impervious. The wetlands effectively reduced most pollutants associated with storm water, including suspended solids, nitrogen, zinc, copper, and phosphorus. A natural wetland system would be feasible in Jefferson the Parish in areas adjacent to natural wetlands.

4.4.3 Filter Strips

4.4.3.1 Description

Filter strips are typically bands of close-growing vegetation, usually grass, planted between pollutant source areas and a receiving water body. They can also be used as outlet or pretreatment devices for other storm water control practices. Filter strips are used primarily in residential areas around property boundaries, roads, parking lots, streams, and ponds. Filter strips provide pollutant removal by biofiltration, infiltration of pollutant-carrying water, and sediment deposition.

4.4.3.2 Feasibility

Vegetated filter strips can be retrofitted within the Parish where there are impervious surfaces adjacent to property boundaries or parking lots. Filter strips can be grassed, and regularly mowed, or planted with vegetation that requires mowing less frequently. Routine inspection is required to check for erosion or the integrity of the vegetative cover. Overall, filter strips are feasible for retrofit installation in limited, small catchment areas within the Parish. The Parish can feasibly encourage developers and property owners to install filter strips in areas of commercial development.

Filter strips allow bypass of peak storm water flows and provide low to moderate removal of solids, oil and grease, nutrients, trace metals, and fecal coliform. Filter strips have moderate to low construction and maintenance costs.

4.4.3.3 Cost Estimate and Existing Installation

Filter strips may or may not be located on private property. The private property owner of the impervious area that generates the storm water runoff, would be responsible for maintaining the filter strips. The grass covered tops of the drainage canal banks currently serve as filter strips.

According to the Caltrans study, the construction cost for filter strips ranges in price from $151,000 to $1,930,000 for treatment of storm water flow at 1-cfs. This technology is generally more suitable for smaller drainage areas and are commonly used in urban settings. Filter strips were installed in Los Angeles and San Diego, California. One installation was designed to receive flow from highway runoff, and two installations were designed to receive runoff from maintenance yards. These systems are common and easily installed within the Parish along commercial areas or parking lots.

4.4.4 Vegetative Swales

4.4.4.1 Description

Swales are earthen channels covered with a dense growth of vegetation such as grass. Swales are used primarily in residential areas around property boundaries, roads, and parking lots. Swales are not effective in areas subject to frequent roadside parking. The vehicular traffic on the swales would damage the vegetation and reduce the efficiency of treatment through biofiltration. These biofilters should be integrated into roadside landscaping plans where traffic is not anticipated.

The pollutant-removing effectiveness of swales can be moderate to negligible depending on many factors, including the quantity of flow, the slope of the swale, the density and height of the vegetation, and the permeability of the underlying soil. They remove pollutants by encouraging infiltration into the ground, reducing runoff velocity and allowing particles to settle.

To reduce soil erosion and to increase efficiency, the inflow to the swale must occur as sheet flow. Swales should be designed with small longitudinal slopes and wide bottoms to avoid soil erosion and to allow for maximum contact of the runoff with the channel bottom. Swales often have berms or small check dams integrated into the design to slow the storm water runoff velocity.

4.4.4.2 Feasibility

Swales can be retrofitted within the Parish where there are impervious surfaces that can be sloped adjacent to property boundaries or parking lots. Overall, swales are feasible for

retrofit installation in limited, small catchment areas within the Parish. The Parish can feasibly encourage developer and property owners to install swales in areas of commercial development and adjacent to parking lots.

Swales allow bypass of peak storm water flows. The swales provide low to moderate removal of solids, oil and grease, nutrients, trace metals, and fecal coliform, and have moderate to low construction and maintenance costs.

Swales can be grassed, and regularly mowed, or planted with vegetation that requires mowing less frequently. Routine inspection is required to check for erosion or the integrity of the vegetative cover. Since soils in the Parish are highly impermeable, vegetation should be regularly maintained to allow for storm water biofiltration.

4.4.4.3 Cost Estimate and Existing Installation

Swales may or may not be located on private property. The private property owner of the impervious area that generates the runoff would maintain the swales.

According to the Caltrans study, the construction cost for swales ranges in price from $26,000 to $620,000 for treatment of storm water flow at 1-cfs. Similar to filter strips, these systems are also best suited for smaller drainage areas and are commonly installed in urban settings. Swales have been installed in Los Angeles, California to receive storm water flow from highway runoff.

4.5 INFILTRATION

4.5.1 Description

Infiltration systems store storm water runoff and allow the water to percolate or infiltrate into the ground. These systems reduce peak storm water flow by recreating the natural infiltration that would occur without impervious surfaces. These devices also provide control of peak flows from storm water and protection of stream banks from erosion due to high flows.

There are a number of devices designed to treat storm water that make use of infiltration to remove pollutants. These devices include infiltration basins, infiltration trenches, and dry wells. The retention basins for infiltration are similar to dry detention ponds, but contain no outlets.

It is critical that infiltration devices only be installed where the soil is porous and can absorb the required quantity of storm water. Furthermore, unless fine sediments are removed from the storm water prior to discharge into the infiltration system, they will quickly become clogged, which may require rehabilitation of the system. The area must also have a reasonably deep water table (at least two feet under the bottom of the device).

4.5.2 Feasibility

The principle of infiltration systems is to collect and retain water in a basin to allow the water to percolate into the ground. The soil conditions for an infiltration basin must be porous. The majority of the soil in the Parish is impermeable clay and silty clay. A second requirement for infiltration systems is that the ground water level should be at least two feet under the bottom of an infiltration basin. The ground water level in the Parish fluctuates between 6 inches to 3 feet below ground surface. Due to these geologic conditions, infiltration basins are not considered feasible for retrofit installation.

As previously discussed in Section 3, the Parish currently promotes use of nonporous pavement and gravel in areas of low traffic volume. These materials can be used as alternatives to nonporous concrete and allow infiltration of storm water. Overall, porous pavements serving as infiltration systems are feasible for retrofit installation in limited areas with low traffic volume and for residential, off-street parking. However, their effectiveness is limited due to the impervious soil within the Parish. The Parish can feasibly encourage developers and property owners to install porous pavements in low traffic areas and for residential, off-street parking.

These materials also allow for bypass peak storm water flows. Porous materials provide moderate removal of solids, and oil and grease and low removal of metals. Porous materials have minimal maintenance requirements, although they provide a limited effectiveness in pollutant removal.

4.5.3 Cost Estimate and Existing Installations

Porous pavements have low construction and maintenance costs. Areas paved with porous materials may or may not be located on private property. The property owner of the impervious area that generates the runoff would be required to maintain the infiltration systems.

The City of Austin, Texas has used porous asphalt, concrete block, and poured concrete in several parking lot areas as test sites. Although no monitoring results are available from the test sites, the city reports shorter retention times and therefore higher runoff than expected. Construction costs associated with porous pavements are higher than the traditional, nonporous materials. Operation and maintenance costs are typically low.

4.6 FILTRATION

4.6.1 Description

Filtration systems include membrane filters and media filters. Filters can be designed to remove a particular pollutant. There are several manufactured membrane and media filters pre-designed as catch basin inserts. Filters also include buried chambers that can be filled with filter media. Small filtration devices may be installed underground in

trenches or pre-cast concrete boxes. The underground filtration devices fit well into urban settings and on sites with restricted space. Larger filtration devices are typically aboveground in self-contained media beds that can treat storm water from drainage areas as large as five acres. The catch basin inserts, underground, and above ground systems have demonstrated long lifetimes and consistent pollutant removal when properly maintained.

Fossil Filter® filtration inserts are trough-type inserts filled with granular amorphous alumina silicate media that removes pollutants by adsorption. A type of membrane filter, Stream Guard® inserts are stock-type inserts that allow collected water to filter through the geotextile fabric. The inserts are configured to remove sediment, pollutants adsorbed to sediment, and oil and grease.

The most commonly used filter media for constructed filter chambers includes sand, peat, and/or synthetic filter media. Sand filters work best in removing suspended solids. Activated carbon has been used in combination with sand and is very good in controlling most pollutants for both treated and pre-settled storm water. Peat/compost filters are appropriate for dealing with road runoff and absorb larger quantities of hydrocarbons since they have a high organic content. Peat alone is good to filter nutrients, bacteria, and organic waste, but will increase the storm water turbidity significantly.

Field research indicates that sand filters have the same effectiveness in removing suspended solids as extended detention or retention facilities. Reported removal efficiencies for other types of media have varied widely. The filter media can become plugged with debris, which can require a frequent maintenance program.

4.6.2 Feasibility

In-line filtration devices include catch basin inserts and filtration basins (above or below ground). Filter devices do not require a large land area. Small, above or below ground filtration basins are feasible in the Parish in areas with available land. The catch basin filter inserts can feasibly be installed as retrofits in limited areas within the Parish. The cost to install a filtration device in each catch basin, however, is not practical or desirable. Prior to installation within the Parish, catchment areas should be evaluated to determine the most effective location for filtration devices. The Parish can also feasibly encourage developers to install filtration devices in commercial areas and parking lots.

Filtration devices can be designed to allow bypass of peak storm water flows. The filtration devices using either media or synthetic membranes provide moderate removal of solids, and oil and grease, and, to some extent, metals.

Above and below ground media-filled filter beds require design and construction. The catch basin filter inserts are typically prefabricated for easy installation into existing catch basins and have fewer design requirements. Maintenance on all filtration devices would be required as deemed necessary. Depending on the quantity of solids collected, this could range from weekly to monthly maintenance. Maintenance includes removal of

sediment and debris that could clog the filters, and periodic replacement of media. Filtration devices that are not properly maintained could pose local flooding problems; therefor their installation should be limited to selected areas. There is little historical information available on the maintenance of these devices since they are relatively new designs for storm water pollutant controls.

4.6.3 Cost Estimate and Existing Installations

According to the Caltrans study, the construction cost of constructed media filtration basins ranges in price from $86,000 to $205,000 for treatment of storm water flow at 1-cfs. Austin, Texas and locations in Florida have made use of the large, above ground media-filled filtration devices. Underground filters have been installed in Florida, Maryland, Delaware, and the District of Columbia. Both types of filters use some form of pre-treatment to remove sediment, floating debris, and oil and grease to protect the filter. After the storm water passes through the pretreatment device, it flows into the media filter bed, where sediment particles and pollutants adsorbed to the sediment particles are captured in the media.

A storm water management in-line filtration system was put into place in Washington County, Oregon, consisting of an underground concrete vault housing rechargeable cartridges filled with a variety of filter media. As storm water flows through the filters, it is discharged into collection pipes.

Currently, Los Angeles, California is testing several types of filtration devices for feasibility of removing storm water pollutants. The Fossil Filter® and Stream Guard® have been installed at three maintenance station locations. They were placed in areas that likely generate oil and grease and other constituents commonly found in maintenance runoff. According to the Caltrans study, the construction cost of catch basin filtration inserts ranges in price from $650,000 to $880,000 for treatment of storm water flow at 1-cfs. Maintenance costs are high due to the frequency of maintenance required.

4.7 HYDRODYNAMIC DEVICES

Hydrodynamic devices use the flow of water to assist with physical separation of pollutants. Hydrodynamic designs include screens and catch basin inserts of several varieties. The majority of these devices are catch basin inserts, i.e. oil and water separators, while others are replacement structures. Most contain some sort of treatment mechanism associated with sedimentation, filtration, or gravitational separation of oil and water.

4.7.1 Bar Screens

4.7.1.1 Description

Screens are devices with openings, generally of uniform size that are used to retain or screen the coarse solids in storm water. The screens are composed of parallel bars or

rods. Bar screens effectively remove floatables from storm water. Screens can either be hand cleaned or mechanically cleaned of the debris that is accumulated. Screens are located as in-line devices in catch basins, pipe lines or drainage canals.

4.7.1.2 Feasibility

As discussed in previous MS4 Guidance Documents, the drainage pump stations within the Parish are currently equipped with bar screens to protect the drainage pumps. The screens effectively remove large solids from storm water in drainage canals and pump stations. The bar screens on all drainage pump stations have a maximum clearing space between the bars of three and a half inches. The bar screens can also provide removal of smaller solids when larger solids accumulate on the screens. The accumulation of materials performs as a filter and decreases the effective spacing between the bar screens. The amount of floatables and trash removed by the bar screens is detailed in the MS4 Annual Report.

The feasibility of retrofitting existing pump stations with smaller bar screens was discussed with the Parish Department of Drainage Pump Stations. If smaller screens were installed at the pump stations, the stations would require larger pumps to compensate for the additional head loss. The Department of Drainage suggested that an overall increase in capacity of the pump stations is more feasible than retrofitting pump stations with smaller screens and larger pumps. The Parish is currently increasing the capacity of several pump stations and catchment areas in order to reduce flooding. The construction plans do not, however, include design for smaller bar screens. Increasing the capacity of the pump stations is beneficial for flood control, but does not benefit storm water quality unless smaller screens are included in the design.

Overall, it is not feasible to install smaller bar screens within the existing drainage pump stations due to the hydraulic constraints of the canals and pump stations. The existing screens provide for the removal of large solids and debris. Increasing the capacity of existing drainage pump stations to compensate for smaller bar screens is moderately feasible. However the removal of only a magnitude small solids and debris do not out weigh the additional construction, operational and maintenance costs. The level of solids removal by the existing screens is adequate.

4.7.1.3 Cost Estimate

Design and construction costs to increase the capacity of pump stations to compensate for smaller bar screens are high. Maintenance requirements and costs for screens are currently included in the Parish budget. Due to the high construction costs and design requirements, installing smaller bar screens is moderately feasible.

4.7.2 Catch Basin Separation Inserts

4.7.2.1 Description

There are several types of catch basin separation inserts, including screens, oil and water separators, and vortex solids separators. These devices use gravity and the water's energy and centrifugal forces to separate solids in the storm water.

Manufactured screens for catch basins, such as the Hydro-Jet Screen™, have typically been used for CSO systems. They contain dry weather flows within the system and pass directly to a treatment facility. Under storm conditions, though, flows increase, and the outlet orifice restricts the pass of flow to the treatment facility. The water level in the Hydro-Jet Screen inlet channel rises, and excess storm water flows discharge over the adjustable weir. The overflow passes through the screen, trapping floatables and solids on its surface. Prior to discharge to the receiving water body, the flow passes through an air-regulated siphon, initiating the screen backwash cycle. This cleans the screen and flushes the solids to a collection channel, which leads to a treatment facility. This screen can also be used to remove pollutants from dry weather groundwater flows in storm sewers.

The Hycor® ROMAG screen by Waterlink® is a fine bar screen that is designed for both combined sewers and storm water outfalls. The screen fits directly into the storm water channel or retention basin and forms a protective barrier to prevent solids from getting into lakes, streams, and on shorelines. It is self-activating, self-cleaning, and is designed to accommodate remote, unattended locations.

One example of a physical control that may be installed beneath the pavement in lieu of a catch basin or manhole is the Stormceptor™. This device is designed to enhance removal of sediments and oil. The Stormceptor™ is divided into a lower storage/separation chamber and the upper bypass chamber. Normal flows are diverted into the lower treatment chamber where oil and other light non-aqueous phase liquids rise and become trapped. Suspended solids settle to the bottom of the chamber by gravity and centrifugal forces. During high flow conditions, the bypass chamber conveys water to the down stream storm sewer, directly circumventing the lower chamber. This prevents the resuspension and scour of settled pollutants.

Another device that is designed to capture coarse sediment, and oil and grease from storm water runoff is the Continuous Deflection Separator (CDS)™. The CDS™ device introduces storm water into the side of the vessel, where it spirals down the perimeter creating a vortex, allowing heavier particles to settle out by gravity and by the drag forces on the wall and base of the chamber. Solids are directed towards the base of the vessel in a sump, where they are stored until removed. The storm water rotates about the vertical axis, and by the time it reaches the top of the vessel, it is virtually free of solids and is discharged through the outlet pipe.

The BaySaver® Separation System relies on gravity flow and density differences to remove free oils, suspended sediments, and floating debris from storm water runoff, retaining the collected pollutants in storage structures. It consists of two precast manholes and a high-density polyethylene separation unit. The two manholes allow the removal and storage of pollutants, while the separator unit directs the flow of water. The primary manhole sits in-line with the storm drain and collects coarse sediments, while the storage manhole is off-line and receives only limited flows, allowing for the removal of fine sediments, free oils, and floating debris. The separation unit in between the manholes directs flow to the storage manhole during low flow conditions, splits the direction during moderate flows, or acts as a bypass during extreme flows.

Another type of in-line storm-water filtration device consists of a chamber that is configured to use the water's energy to create a vortex. These devices, such as the Reg-U-Flo Vortex Valve and the Storm King®, are capable of removing floatables as well as inducing sedimentation. These separators have up to six times the treatment rate of conventional separators. The Storm King® separator was installed in Columbus, Georgia, and the Reg-U-Flo Vortex Valve was installed in King County, Washington. There is little historical data, however, that analyzes the efficiency of pollutant removal of these systems.

4.7.2.2 Feasibility

Hydrodynamic devices are ideal for use in high traffic parking lots, industrial maintenance facilities, gas and service stations, highway storm water runoff, and pretreatment for subsequent pollutant controls. The catch basin separator inserts effectively remove suspended solids and oil and grease present in low storm water flows. A bypass for peak flows is typically included in the design of the inserts. The inserts are designed for installation as a retrofit into existing catch basins, and they can easily be inserted into the existing flood control devices within the Parish. The catch basin inserts are also relatively low cost for individual units. The cost to install a separation insert in each catch basin, however, is not practical. Catch basins should be evaluated to determine the most effective location for the separators prior to installation. Areas within the Parish that historically receive large quantities of solids or litter may benefit from the devices. The Parish can also feasibly encourage developers to install catch basin separator inserts in commercial areas and parking lots.

Maintenance on the devices would be required as deemed necessary. Maintenance includes cleaning the chambers to remove the collected solids. The frequency of maintenance is highly dependent on the drainage areas, street cleaning practices, and frequency of storm events. Depending on the quantity of solids collected, this could range from weekly to monthly maintenance. There is little historical information available on the maintenance of these devices since they are relatively new designs for storm water treatment.

4.7.2.3 Cost Estimate and Existing Installations

Currently, Los Angeles, California is testing several types of catch basin separation inserts for feasibility of removing storm water pollutants. The CDS™ and oil/water separators have been installed at four locations. They were placed in areas that likely generate oil and grease and other constituents commonly found in maintenance runoff. The average costs for the catch basin separation inserts range in price from $105,000 to $207,000 for treatment of storm water flow at 1-cfs. In addition, they may impede the flow of water during a heavy storm event. Maintenance costs are high due to the frequency of maintenance required.

Section 5
Conclusions

5.1 ONGOING STUDIES

Several organizations are evaluating ongoing retrofit studies and compiling operational data on storm water pollutant controls. Caltrans is involved in large storm water quality monitoring and research projects. As part of this effort, they are designing, installing, and monitoring a number of retrofit technologies. This is a comprehensive field-testing program of these devices. The goal of the studies performed by Caltrans is to determine the cost-effectiveness and water-quality benefits of structural storm water pollutant controls. Data has been collected for the initial testing of the devices, and additional data will be compiled for the devices over the next few years.

The USEPA, through the American Society of Civil Engineers, is also compiling a National Storm Water BMP Database with input from local jurisdictions, states and other organizations. This database includes evaluation data and associated design information for storm water pollutant controls. The long-term goal is to improve the technical design of the technologies and to match their selection and design to local storm water problems. Data is continuously compiled as new controls are evaluated.

Because of the great deal of information that is continuously updated on storm water retrofit devices, it is recommended that the Parish further study some of the options discussed in this report. The information gained from further study would allow the Parish to make an informed decision on the capability and feasibility of storm water retrofit devices.

5.2 ONGOING FLOOD CONTROL PROJECTS WITHIN JEFFERSON PARISH

The Parish has and will continue to evaluate the feasibility of retrofitting existing flood control devices to benefit water quality. Several new flood control projects within the Parish are retrofits to the existing flood control system and also benefit storm water quality. These ongoing flood control projects were discussed previously in the MS4 Guidance Documents and were also reviewed in Section 3 of this report.

5.3 FEASIBILITY SUMMARY

An effective system of pollutant controls addresses point as well as nonpoint sources of pollutants throughout the drainage area that cannot be effectively controlled at the source. It is also important to address the benefit of installing more than one type of pollutant control. A combination or a system of pollutant controls addresses the removal of a wider range of pollutants of concern. It is recommended that the Parish determine the feasibility of installing a combination of retrofit devices prior to implementation of a specific option.

The following retrofits, or a combination thereof, merit further study:

Table 5-1
Summary of Feasible Retrofits

Retrofit	Comparative Cost	Pollutant Removal	Overall Feasibility
Natural wetlands	Low construction and maintenance costs	Moderate to high removal of BOD, O&G, Solids, Nitrogen, Phosphorous, Metals, Fecal Coliform	Applicable to areas of Jefferson Parish adjacent to wetlands
Constructed wetlands	High construction and low to moderate maintenance costs	Moderate to high removal of BOD, O&G, Solids, Nitrogen, Phosphorous, Metals, Fecal Coliform	Limited by cost to construct and maintain. Large amount of area needed. Plants may be eaten by nutria.
Filter strips and swales	Moderate to low construction and maintenance costs	Low to moderate removal of Solids, O&G, Phosphorous, Metals, Fecal Coliform	Restricted to low density areas
Dry detention basins	Moderate to high construction and moderate maintenance costs; solids removal after 10 to 20 years	Moderate removal of BOD, COD, Solids, Metals, Fecal Coliform	Limited to areas of available land
Wet retention basins	High construction and moderate maintenance costs; solids removal after 10 to 20 years	Moderate to high removal of BOD, COD, O&G, Nitrogen, Phosphorous, Metals, Fecal Coliform	Limited to areas of available land
Hydrodynamic devices	Moderate construction and high maintenance costs; frequent maintenance	Moderate to high removal of O&G, Solids; low removal of Metals	Applicable to small developments
Filtration system – catch basin inserts	Moderate to high construction and high maintenance costs; frequent maintenance	Moderate removal of O&G, Solids; low removal of Metals	Applicable to small developments

Table 5-1
Summary of Feasible Retrofits

Retrofit	Comparative Cost	Pollutant Removal	Overall Feasibility
Infiltration systems – porous pavements	Low construction and maintenance costs, system failure after 5 years	Moderate removal of O&G and Solids; low removal of Metals	Highly restricted by soils, groundwater, traffic and area

BOD – Biochemical Oxygen Demand
O&G – Oil and Grease

Natural wetlands are effective in treating the majority of pollutants of concern, listed above in Table 5-1. Natural wetlands can be designed to allow bypass of flood waters and can feasibly be located within the Parish boundaries. Retrofitting natural wetlands to receive increased storm water flows would require low construction costs and low maintenance costs. Natural wetlands are considered a highly feasible retrofit option.

Constructed wetlands have been extensively researched for treatment of storm water in the region surrounding the Parish boundaries. Similar to natural wetlands, constructed wetlands are effective in treating the majority of pollutants of concern. Constructed wetlands can be designed to allow bypass of flood waters, and can feasibly be located within the Parish on both the East and West Bank. Constructed wetlands, although they represent a higher construction cost, have low to moderate maintenance requirements. Maintenance requirements may decrease after initial start up of the system; however, these plants are extremely palatable to nutria and may have to be constantly replenished. Constructed wetlands are considered an option that warrants further study.

Both filter strips and swales provide limited removal of the pollutants listed above. These biofilters can feasibly be located within the existing flood control system to treat small catchment areas. Filter strips and swales allow for bypass of flood water. They also have low construction costs and maintenance requirements. Filter strips and swales are restricted for use in small, low density catchment areas, mainly on private property.

Dry detention basins provide moderate removal of the pollutants listed above. Dry detention basins allow for bypass and provide control of flood waters. Small detention facilities can feasibly be located within the existing flood control system to treat small catchment areas, but they are limited to areas with available land. The associated construction costs are high, and maintenance requirements are moderate. Small dry detention facilities warrant further study; however, they may be limited by soil types and water table levels in the area.

Wet retention basins provide moderate to high removal of the pollutants listed above. Wet retention basins allow for bypass and provide control of flood waters. Similar to dry detention basins, small wet retention facilities can feasibly be located within the existing flood control system to treat small catchment areas. The location of retention facilities is limited to areas with available land. The associated construction costs are high and

maintenance requirements are moderate. Small wet retention facilities are considered feasible retrofits in limited areas.

Hydrodynamic devices can effectively remove solids, oil and grease, and, to some extent, metals. Most devices are constructed to allow bypass of flood waters. They can feasibly be located within the existing catch basins on private property, or in the instance of screens, can be installed in the existing drainage pump stations. Construction costs and the maintenance requirements to install catch basin separation inserts in all catch basins within the Parish is not feasible. Catch basin separation inserts are feasible for retrofit installation in selected areas. Retrofitting screens on the existing drainage pump stations is less feasible due to the higher construction cost to retrofit the drainage pump stations.

Filtration systems, both membrane and media filters, effectively remove solids, oil and grease, and, to some extent, metals. Most filtration devices are capable of bypassing flood water and can feasibly be located within the existing catch basins. Construction costs and the maintenance requirements to install filters in all catch basins within the Parish is not feasible. Filtration devices are feasible for retrofit installation on private property in selected areas.

Although infiltration basins are not considered feasible, alternative materials to concrete such as porous pavement that allow storm water to infiltrate are considered feasible in limited areas. The alternative infiltration materials are moderately effective in removing suspended solids, oil and grease, and, to some extent, metals. Porous materials do not impede flood water and can feasibly be located within the Parish. Construction costs and maintenance requirements are relatively low. Porous pavement and gravel can feasibly be used to retrofit non-permeable surfaces in limited, low-traffic volume areas.

JEFFERSON PARISH

LIST OF INDUSTRIAL & HIGH RISK (I&HR) FACILITIES

	Facility Name	Address	City	St	Zip	TRI Facility	NPDES Permit		
							Permit No.	Type	Start Date
1	AAA Cooper Transportation	620 Dakin St	Jefferson	LA	70121		LAR05M415	Gen-LAR05-Multi-Sector	8/17/99
2	ABF Freight Systems Inc	400 Shrewsbury Rd	Jefferson	LA	70121		LAR05M036	Gen-LAR05-Multi-Sector	5/27/93
3	Adams Land & Marine Ltd	141 Maxwell Ln	Marrero	LA	70072		LAG480652	Gen-LAG48-Light Commercial	4/29/09
4	Aircraft Service International Inc	NO International Airport	Kenner	LA	70141		LAR05N236	Gen-LAR05-Multi-Sector	9/5/16
5	Airgas Priority Nitrogen LLC	1101 Destrehan Ave	Harvey	LA	70058		LAG480973	Gen-LAG48-Light Commercial	9/29/95
6	Airline Salvage Inc	6900 Airline Hwy	Metairie	LA	70003		LAR05M467	Gen-LAR05-Multi-Sector	8/17/99
7	American River Transportation Co LLC	West Bank	Waggaman	LA	70094		LAG030038	Gen-LAG03-Vessel Cleaning	8/17/99
8	Anthony Savarino Unlimited Construction LLC	1000 Justin Rd	Metairie	LA	70005		LAR05N602	Gen-LAR05-Multi-Sector	2/5/04
9	A-Quality Auto Sales	143-4	Metairie	LA	70001		LAG750047	Gen-LAG75-Exterior Vehicle Wash	5/27/93
10	Ashton Marine LLC	1200 Peters Rd	Harvey	LA	70058		LAR05N601	Gen-LAR05-Multi-Sector	9/8/97
11	Atlantic Aviation Services	PO Box 1897	Kenner	LA	70063		LAR05N560	Gen-LAR05-Multi-Sector	9/5/16
12	Avondale Container Yard Inc	101 Avondale Garden Rd	Avondale	LA	70094		LAG480159	Gen-LAG48-Light Commercial	8/17/99
13	Avondale Engineering & Construction Co	550 Modern Farms Rd	Waggaman	LA	70094		LAG480913	Gen-LAG48-Light Commercial	2/10/00
14	B&G Crane Service - Central Yard	725 Central Ave	Jefferson	LA	70121		LAR05N009	Gen-LAR05-Multi-Sector	5/27/93
15	B&G Crane Service - West Yard	7001 Ivy St	Metairie	LA	70003		LAG750592 LAR05N010	Gen-LAG75-Exterior Vehicle Wash Gen-LAR05-Multi-Sector	5/27/93
16	B&S Equipment Co Inc	2101 Engineers Rd	Harvey	LA	70059		LAG481061	Gen-LAG48-Light Commercial	6/24/16
17	Beverly Industries Inc - Sandpit	off Hwy 541 (River Rd)	Bridge City	LA	70096		LAG490070	Gen-LAG49-Sand and Gravel	7/17/07
18	Beverly Industries LLC	1215 River Rd	Bridge City	LA	70094		LAG110229	Gen-LAG11-Concrete/Asphalt	2/23/09
19	Beverly Industries LLC	1214 River Rd	Nine Mile Point	LA	70094		LAG490022	Gen-LAG49-Sand and Gravel	7/10/98
20	BFI Waste Services LLC dba Allied Waste Services of New Orleans	808 L And A Rd	Metairie	LA	70001		LAR05P420	Gen-LAR05-Multi-Sector	5/27/93
21	Bollinger Quick Repair LLC	615 Destrehan Ave	Harvey	LA	70058	X	LAR05M762 LA0007137	Gen-LAR05-Multi-Sector Indiv-Minor Industrial	5/27/93
22	Bridgeside Marina Inc - Bridge Side Cabins & Marina	1618 Hwy 1	Grand Isle	LA	70358		LAR05N903	Gen-LAR05-Multi-Sector	9/5/16
23	C&C Coatings LLC	2900 Peters Rd	Harvey	LA	70058		LAG030072	Gen-LAG03-Vessel Cleaning	5/27/93
24	Carlo Ditta Inc - Plant #1	1445 Macarthur Ave	Harvey	LA	70058		LAG110026	Gen-LAG11-Concrete/Asphalt	5/27/93
25	Carnival Wrecker Service LLC	2565 Breaux Ave	Harvey	LA	70058		LAR05N439	Gen-LAR05-Multi-Sector	2/26/03
26	Chet Morrison Contractors LLC - Harvey Fab	3434 Peters Rd	Harvey	LA	70058		LAG480833	Gen-LAG48-Light Commercial	9/10/97
27	Clint Jacob - Jake's Towing & Salvage	5901 Hwy 90	Avondale	LA	70094		LAR05P838	Gen-LAR05-Multi-Sector	9/4/97
28	Conley Marine Services LLC	600 Peters Road	Harvey	LA	70058		LAR05Q046	Gen-LAR05-Multi-Sector	11/7/18
29	Cooper Consolidated LLC - CCI/Azalea Fleet	9600 River Rd	Waggaman	LA	70094		LAG030097	Gen-LAG03-Vessel Cleaning	5/27/93
30	Cornerstone Chemical Co - Fortier Plant	10800 River Rd	Waggaman	LA	70094	X	LA0004367	Indiv-Major-Industrial	5/27/93
31	CP Marine Services LLC	4881 Everard St	Marrero	LA	70072		LAG030057	Gen-LAG03-Vessel Cleaning	1/13/16
32	Crane & Templet I Am Blessed Properties LLC	1913 Peters Rd	Harvey	LA	70058		LAG470405	Gen-LAG47-Auto Repair/Dealers	2/12/07
33	Cross Road Centers Transportation LLC	32 East Airline Hwy	Kenner	LA	70062		LAR05Q068	Gen-LAR05-Multi-Sector	5/13/19
34	Delta Auto Wreckers Inc	7000 Airline Dr	Metairie	LA	70003		LAR05M589	Gen-LAR05-Multi-Sector	8/17/99
35	Delta Coatings Inc - Westwego Yard	9581 Westbank Expswy	Westwego	LA	70094		LAR05Q172	Gen-LAR05-Multi-Sector	4/30/21
36	Deltide Fishing & Rental Tools Inc	1131 Peters Rd	Harvey	LA	70058		LAR05P625	Gen-LAR05-Multi-Sector	12/14/12
37	Diamond B Construction Co LLC - Westwego Asphalt Facility	710 River Road	Westwego	LA	70094		LAR05P694	Gen-LAR05-Multi-Sector	9/5/16
38	Diamond Painting & Sandblasting LLC	4640 Peters Rd	Harvey	LA	70053		LAR05Q132	Gen-LAR05-Multi-Sector	2/5/20
39	Doctor Pipe Inc	34 E Third St	Kenner	LA	70062		LAR05N506	Gen-LAR05-Multi-Sector	9/5/16
40	Don Bohn Buick Pontiac GMC	3801 Lapalco Blvd	Harvey	LA	70058		LAG470316	Gen-LAG47-Auto Repair/Dealers	5/27/93
41	Don Bohn Ford	3737 Lapalco Blvd	Harvey	LA	70058		LAG470061	Gen-LAG47-Auto Repair/Dealers	7/20/99
42	Don Bohn Used Cars	3660 Lapalco Blvd	Harvey	LA	70000		LAG470217	Gen-LAG47-Auto Repair/Dealers	1/27/05
43	Dynamic Industries Inc - Harvey South Yard Facility	2804 Peters Rd	Harvey	LA	70058		LAG480497	Gen-LAG48-Light Commercial	5/27/93
44	Dyno Nobel Louisiana Ammonia LLC	10800 River Rd	Waggaman	LA	70094	X			
45	Entergy Louisiana LLC - Ninemile Point	1617 River Rd	Westwego	LA	70094	X	LA0003093	Indiv-Major-Industrial	6/9/2017
46	ERA Helicopters LLC - Era Helicopters - New Orleans Base	200 Crofton Road	Kenner	LA	70062		LAR05P992	Gen-LAR05-Multi-Sector	7/26/17

47	FedEx Express - MSYR	200 Crofton-B	Kenner	LA	70062		LAR05M075	Gen-LAR05-Multi-Sector	9/5/16
48	FMT Shipyard & Repair LLC - Vessel Maintenance Repair & Fabrication Yard	3640 Peters Rd	Harvey	LA	70058	X	LAG030001	Gen-LAG03-Vessel Cleaning	5/27/93
49	Frank L Beier Radio Inc - Boat Stuf	2499 Peters Rd	Harvey	LA	70058		LAG470423	Gen-LAG47-Auto Repair/Dealers	1/20/05
50	General Chemical LLC	6526 Fourth St	Marrero	LA	70073		LAR05N796	Gen-LAR05-Multi-Sector	5/27/93
51	General Chemical LLC	6526 Fourth St	Westwego	LA	70094		LAR05N796	Gen-LAR05-Multi-Sector	9/1/16
52	Gold Bond Building Products	10 Louisiana St.	Westwego	LA	70094	X			
53	Gold Bond Building Products LLC - Westwego Plant	10 Louisiana St.	Westwego	LA	70094		LAR05N233	Gen-LAR05-Multi-Sector	9/1/16
54	Graham Packing Co	201 Jefferson Hwy	Jefferson	LA	70121		LAR05N653	Gen-LAR05-Multi-Sector	9/5/16
55	Grand Isle Shipyard Inc	432 Minnich Ln	Grand Isle	LA	70358		LAR05N770	Gen-LAR05-Multi-Sector	9/5/16
56	Greater New Orleans Landfill	5700 Hwy 90 W	Westwego	LA	70094		LAR05N752	Gen-LAR05-Multi-Sector	9/5/16
57	Gulf South Piling & Construction Inc	1250 L&A Rd	Jefferson	LA	70001		LAR05N862	Gen-LAR05-Multi-Sector	9/5/16
58	Hard Rock Construction LLC	1255 & 1265 Peters Rd	Harvey	LA	70059		LAG470437	Gen-LAG47-Auto Repair/Dealers	5/27/93
59	Hebert's Trucking & Equipment Service LLC	5110 Carmelite St	Crown Point	LA	70072		LAG470369	Gen-LAG47-Auto Repair/Dealers	8/1/12
60	Hinyub & Hinyub Enterprises Inc - Manhattan Carwash	1612 Manhattan Blvd	Harvey	LA	70058		LAG750944	Gen-LAG75-Exterior Vehicle Wash	4/17/13
61	Historic Race Cars LLC	2440 Hickory Ave	Metairie	LA	70003		LAG470431	Gen-LAG47-Auto Repair/Dealers	9/29/95
62	Hunting Energy Services Inc	6615 River Rd	Marrero	LA	70072		LAG480527	Gen-LAG48-Light Commercial	5/27/93
63	Hwy 90 LLC - Hwy 90 C&D Landfill	5000 Hwy 90	Avondale	LA	70094		LAG780020	Gen-LAG78-C&D Landfills	8/1/02
64	Hydril Premium Connections	201 Klein St	Westwego	LA	70094		LAR05M623	Gen-LAR05-Multi-Sector	9/5/16
65	IESI LA Corp - East Bank Citizen Trash Drop-Off Site	400 David Dr	Metairie	LA	70003		LAR05P263	Gen-LAR05-Multi-Sector	5/28/99
66	IESI LA Corp- Marrero Citizen Trash Drop-Off Site	6440 Lapalco Blvd	Marrero	LA	70072		LAR05P264	Gen-LAR05-Multi-Sector	7/22/99
67	IMTT-Gretna LLC - Gretna Facility	1145 Fourth St	Harvey	LA	70058		LA0003484	Indiv-Minor Industrial	5/27/93
68	International-Matex Tank Terminals LLC - IMTT Avondale	5450 River Rd	Avondale	LA	70094		LA0075981	Indiv-Minor Industrial	5/27/93
69	Jefferson Parish Department Drainage Pump Station - Ames Pump Station	5100 Rochester Dr	Marrero	LA	70072		LAG530921	Gen-LAG53-Sanitary Class I	8/17/99
70	Jefferson Parish Department Drainage Pump Station - Cataouatche #1 Pump Station	3901 Hwy 90	Avondale	LA	70094		LAG530922	Gen-LAG53-Sanitary Class I	8/17/99
71	Jefferson Parish Department Drainage Pump Station - Cousins Pump Station	2466 Destrehan Ave	Harvey	LA	70058		LAG530920	Gen-LAG53-Sanitary Class I	8/17/99
72	Jefferson Parish Department Drainage Pump Station - Hero Pump Station	2466 Destrahan Ave	Harvey	LA	70058		LAG530919	Gen-LAG53-Sanitary Class I	8/17/99
73	Jefferson Parish Department Drainage Pump Station - Westminster & Lincolnshire Pump Station	2050 Watling Dr	Marrero	LA	70072		LAG530923	Gen-LAG53-Sanitary Class I	8/17/99
74	Jefferson Parish Department of Sewerage - Bridge City WWTP	1900 Hwy 90	Bridge City	LA	70055		LA0042064	Indiv-Major-Sanitary	11/25/98
75	Jefferson Parish Dept of Public Works - Jonathan Davis Plantation	Hwy 301, 4 Mi S of Kerner Bric	Barataria	LA	70036		LA0068292	Indiv-Minor-Sanitary	5/27/93
76	Jefferson Parish Dept of Sewerage - Harvey STP	2343 Pailet St	Harvey	LA	70055		LA0042081	Indiv-Major-Sanitary	5/27/93
77	Jefferson Parish Dept of Sewerage - Marrero WWTP	6250 Lapalco Blvd	Marrero	LA	70055		LA0042048	Indiv-Major-Sanitary	5/27/93
78	Jefferson Parish DPW - East Bank STP	2 Humane Way	Harahan	LA	70123		LA0066630	Indiv-Major-Sanitary	5/27/93
79	Jefferson Parish Government - Jefferson Parish Sanitary Landfill	5800 Hwy 90 W	Westwego	LA	70094		LAR05M138	Gen-LAR05-Multi-Sector	9/5/16
80	Jefferson Parish Law Enforcement District - 2nd District Substation	1551 Central Park Blvd	Harvey	LA	70058		LAG533222	Gen-LAG53-Sanitary Class I	8/31/09
81	Jefferson Parish Law Enforcement District - 3rd District Station	6001 Leo Kerner Blvd	Marrero	LA	70072		LAG533628	Gen-LAG53-Sanitary Class I	11/5/10
82	Jefferson Parish Law Enforcement District - 4th District Station	6228 Airline Dr	Metairie	LA	70003		LAG533394	Gen-LAG53-Sanitary Class I	3/10/10
83	Jefferson Parish Water Department - East Jefferson Water Treatment Plant	3600 Jefferson Hwy	Jefferson	LA	70121		LAG380037	Gen-LAG38-Potable Water	5/27/93
84	Jefferson Parish Water Department - West Jefferson Water Treatment Plant	4500 Westbank Expy	Marrero	LA	70072		LAG380028	Gen-LAG38-Potable Water	5/27/93
85	JMN Specialties Inc - Westwego Facility	1100 Victory Dr	Westwego	LA	70094		LAR05P801	Gen-LAR05-Multi-Sector	9/5/16
86	Jobbers Oil Transport Co Inc	814 Kenner Ave	Kenner	LA	70062		LAR05P151	Gen-LAR05-Multi-Sector	9/5/16
87	John Early Trucking	6715 Fourth St	Marrero	LA	70072		LAR05N720	Gen-LAR05-Multi-Sector	11/7/97
88	JP & Sons Inc	8900 River Rd	Waggaman	LA	70094		LAG490010	Gen-LAG49-Sand and Gravel	3/9/00
89	K&J Truck Repair Services Inc	724 Peters Rd	Harvey	LA	70058		LAG470350	Gen-LAG47-Auto Repair/Dealers	9/10/97
90	K&S Diesel Service Inc	913 Peters Rd	Harvey	LA	70058		LAG470410	Gen-LAG47-Auto Repair/Dealers	5/27/93
91	Kansas City Southern Railway Co - New Orleans Yard	220 Airline Dr	Metairie	LA	70001		LAR05P515	Gen-LAR05-Multi-Sector	5/27/93

92	Kem ra Chemicals, Inc.	10800 River Rd.	Waggaman	LA	70094	X			
93	LADOTD - District 02 Headquarters	1440 Hwy 90	Bridge City	LA	70094		LAR05N203	Gen-LAR05-Multi-Sector	9/5/16
94	LADOTD - Kenner Maintenance Unit	166 W Third St	Kenner	LA	70062		LAR05N315	Gen-LAR05-Multi-Sector	9/5/16
95	LADOTD - Marrero Maintenance Unit	1648 Barataria Blvd	Marrero	LA	70072		LAR05N316	Gen-LAR05-Multi-Sector	9/5/16
96	Lafarge North America Inc - Airline Plant	3320 Airline Dr	Metairie	LA	70001	X	LAG110005	Gen-LAG11-Concrete/Asphalt	8/17/99
97	Lafarge North America Inc - Westbank Plant	1950 Ames Blvd	Marrero	LA	70073		LAG110008	Gen-LAG11-Concrete/Asphalt	6/18/99
98	Lakeside Imports Inc - Lakeside Collision Center	3224 36th St	Metairie	LA	70001		LAG470070	Gen-LAG47-Auto Repair/Dealers	5/27/93
99	Leson Chevrolet Co Inc	1501 Westbank Expy	Harvey	LA	70058		LAG470171	Gen-LAG47-Auto Repair/Dealers	5/27/93
100	Louis Armstrong New Orleans International Airport	900 Airline Dr	Kenner	LA	70062		LAR05M023	Gen-LAR05-Multi-Sector	9/5/16
101	Louisiana Machinery Co LLC - Force Power Systems LLC - Harvey Facility	751 Peters Rd	Harvey	LA	70058		LAG481060	Gen-LAG48-Light Commercial	8/31/00
102	Mar nac LLC - McDonough Marine Service - Harvey Canal Fleet	Harvey Canal Mile 3-5	Harvey	LA	70058		LAG030076	Gen-LAG03-Vessel Cleaning	2/12/01
103	Modern American Recycling	8900 River Rd	Waggaman	LA	70094		LAR05P083	Gen-LAR05-Multi-Sector	10/10/08
104	Modern Metals Recycling LLC	2465 Destrehan Ave	Harvey	LA	70058		LAR05Q064	Gen-LAR05-Multi-Sector	4/30/19
105	New Orleans Public Belt Railroad	900 Central Ave	Bridge City	LA	70094		LAR05M434	Gen-LAR05-Multi-Sector	9/5/16
106	New Orleans Shipyard	8400 River Rd	Westwego	LA	70094	X	LA0093602	Indiv-Vessel Cleaning	9/19/10
107	Ochsner Clinic Foundation - Ochsner Health System	1514 Jefferson Hwy	Jefferson	LA	70121		LA0006751	Indiv-Minor Industrial	5/27/93
108	Pellerin Milnor Corp	700 Jackson St	Kenner	LA	70062		LAR05N532	Gen-LAR05-Multi-Sector	9/1/16
109	Pull-A-Part of New Orleans West LLC	4401 Peters Rd	Harvey	LA	70058		LAR05N923	Gen-LAR05-Multi-Sector	9/5/16
110	Reagan Power & Compression LLC	2230 St Joseph Rd	Harvey	LA	70054		LAG480039	Gen-LAG48-Light Commercial	5/27/93
111	Reliable Soil Co Inc	701 Reverend Richard Wilson	Kenner	LA	70062		LAR05P134	Gen-LAR05-Multi-Sector	9/5/16
112	Repair Center Holdings LLC - Ray Brandt Collision Center	7021 Airline Hwy	Metairie	LA	70003		LAG470457	Gen-LAG47-Auto Repair/Dealers	9/21/17
113	Retif Oil & Fuel LLC - Harvey Facility	527 Destrehan Ave	Harvey	LA	70058		LA0109428	Indiv-Minor Industrial	5/27/93
114	River Birch LLC - River Birch Landfill	2000 S Kenner Ave	Waggaman	LA	70094		LA0099473	Indiv-Minor-Industrial-Major Mod	6/15/99
115	River Parish Disposal LLC	7201 Airline Dr	Metairie	LA	70003		LA0100757	Indiv-Minor Industrial	3/8/95
116	Riverside Food Distributors LLC - F Christiana & Co	7251 River Rd	Marrero	LA	70072		LA0083216	Indiv-Minor Industrial	5/27/93
117	Riverside Metals LLC - Vertex Recovery Management of Louisiana	4390 Peters Rd	Harvey	LA	70058		LAR05Q182	Gen-LAR05-Multi-Sector	2/4/21
118	Riverside Used Auto Parts Inc	4604 River Rd	Marrero	LA	70072		LAR05M609	Gen-LAR05-Multi-Sector	9/17/97
119	Roehm America LLC	10800 River Rd	Westwego	LA	70094	X			
120	Safety Kleen Systems Inc - Jefferson Plant	3000 Airline Dr	Metairie	LA	70001	X	LAG480080	Gen-LAG48-Light Commercial	5/27/93
121	Saia Motor Freight Line LLC	3301 Andover St	Jefferson	LA	70181		LAR05M508	Gen-LAR05-Multi-Sector	5/27/93
122	She l Kenner Terminal	143 Firehouse Dr	Kenner	LA	70062	X			
123	Southeast Louisiana Flood Protection Authority	7001 River Rd	Marrero	LA	70072		LA0106607	Indiv-Minor Industrial	10/5/94
124	Southeast Paper Recycling	246 St George Ave	Jefferson	LA	70121		LAR05M614	Gen-LAR05-Multi-Sector	9/5/16
125	Southern Recycling LLC	50 Labauve Dr	Westwego	LA	70094		LAR05M687	Gen-LAR05-Multi-Sector	9/5/16
126	Southwest Airlines	900 Airline Dr Concourse B	Kenner	LA	70141		LAR05M059	Gen-LAR05-Multi-Sector	9/5/16
127	Sports & Imports	2433 Hickory Ave	Metairie	LA	70003		LAG470203	Gen-LAG47-Auto Repair/Dealers	5/27/93
128	State Machinery	160 W Airline Hwy	Kenner	LA	70062		LAR05P030	Gen-LAR05-Multi-Sector	9/5/16
129	Stewart & Stevenson Services - New Orleans Branch Facility	1400 Destrehan Ave	Harvey	LA	70058		LAG480221	Gen-LAG48-Light Commercial	5/27/93
130	Superior Energy Services LLC	1105 Peters Rd	Harvey	LA	70058		LAR05M825	Gen-LAR05-Multi-Sector	6/4/99
131	Survival Systems International Inc	931 Industry Rd	Kenner	LA	70063		LAR05N637	Gen-LAR05-Multi-Sector	9/5/16
132	T & G Motors LLC (formly) FNO AG LLC dba Cadillac of New Orleans	3100 Lime St	Metairie	LA	70006		LAG470115	Gen-LAG47-Auto Repair/Dealers	5/27/93
133	Total Marine Services of Jefferson Inc	2057 Destrehan Ave	Harvey	LA	70058		LAG030041	Gen-LAG03-Vessel Cleaning	9/10/97
134	Tri Native Contractors Inc	4839 Orleans Way	Marrero	LA	70072		LAR05P172	Gen-LAR05-Multi-Sector	10/22/08
135	Union Pacific Railroad - Avondale Yard	5245 River Rd	Avondale	LA	70094		LAG480135	Gen-LAG48-Light Commercial	5/27/93
136	United Airlines Inc	900 Airline Dr Concourse D	Kenner	LA	70141		LAR05M058	Gen-LAR05-Multi-Sector	9/5/16
137	United Parcel Service Inc (UPS)	200 Crofton Rd	Kenner	LA	70123		LAR05M145	Gen-LAR05-Multi-Sector	9/5/16
138	United Parcel Service Inc (UPS)	4500 Firestone Rd	Metairie	LA	70001		LAR05M571	Gen-LAR05-Multi-Sector	9/5/16
139	US Air	900 Airline Dr Concourse A	Kenner	LA	70141		LAR05M044	Gen-LAR05-Multi-Sector	9/5/16
140	US Minerals Inc	3860 Peters Rd	Harvey	LA	70059		LAG480174	Gen-LAG48-Light Commercial	8/17/99
141	Vertex Refining LA LLC	5000 River Rd	Marrero	LA	70072	X			
142	Warrior Energy Services Corp	1209 Peters Rd	Harvey	LA	70059		LAR05N176	Gen-LAR05-Multi-Sector	6/27/01
143	Waste Management of Louisiana LLC - Harvey	1220 Peters Rd	Harvey	LA	70058		LAG480784	Gen-LAG48-Light Commercial	6/15/99

144	Wechem	5734 Susitna Dr	Harahan	LA	70123	X	LAR05M066	Gen-LAR05-Multi-Sector	9/5/16
145	Westside Transit - Veolia Transportation	118 David Dr	Metairie	LA	70003		LAR05N865	Gen-LAR05-Multi-Sector	6/5/07
146	Wood Resources LLC	8200 River Rd	Waggaman	LA	70094		LAG490020	Gen-LAG49-Sand and Gravel	8/3/99

ALLOWABLE NON-STORM WATER DISCHARGES

JEFFERSON PARISH
MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT
LAS000201

Prepared by
JEFFERSON PARISH

JUNE 2016

IMPLEMENTATION AND AUGMENTATION OF THE STORM WATER MANAGEMENT PROGRAM FOR JEFFERSON PARISH NPDES MS4 PERMIT

ALLOWABLE NON-STORM WATER DISCHARGES

The Jefferson Parish Municipal Separate Storm Sewer System (MS4) permit issued by the USEPA on March 1, 1997, requires that each permittee "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 Storm Sewer System."

Table III.A. of the permit requires that Jefferson Parish and the Cities of Gretna, Harahan, Kenner, and Westwego, "Submit a list of non-storm water discharges categories exempt from the prohibition on non-storm water discharges to the MS4, along with any limitation on these discharges, and reasons for determinations."

The permit (Part III.A.6) requires that non-storm water discharges to the MS4 shall be effectively prohibited by the permittees. However, certain discharges need not be addressed as illicit discharges by the permittee nor prohibited from entering the MS4 for the purposes of this permit. These discharges include: "discharges regulated by a separate NPDES permit; discharges for which an NPDES permit application has been submitted; and non-storm water discharges identified by the permittee as specified in item a below.

a. Permittees shall identify in the Storm Water Management Program any categories of non-storm water that are not prohibited from being discharged in the Municipal Separate Storm Sewer System, in accordance with conditions described in items (1) and (2) below:

   (1) Categories of non-storm water discharges that the permittee(s) may exempt from the prohibition on non-storm water entering the Municipal Storm Sewer System include those either:

      (a) Listed in 40 CFR 122.26 (d) (2) (iv) (B) (1); or

      (b) Other similar occasional incidental non-storm water discharges (e.g. non-commercial or charity car washes).

   (2) Categories of non-storm water discharges exempted from the prohibition on non-storm water 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:

      (a) The nature of the discharges; or

      (b) Conditions placed on the discharges by the permittees.

The Storm Water Management Program shall describe any local controls or conditions placed on the discharges exempted from the prohibition on non-storm water. Permittees shall prohibit any individual non-storm water discharge otherwise exempted under this paragraph from the prohibition on non-storm water that is determined to be contributing significant amounts of pollutants to the Municipal Separate Storm Sewer System."

Jefferson Parish Drainage Disposal Law (Section 27-157 through 27-165 of the Jefferson Parish Code) defines categories of discharges which are allowed or excluded from the MS4. The requirements of the Drainage Disposal Law, both qualitative and quantitative, supersede any allowance for non-storm water discharges cited herein. For example, discharges resulting from the cleaning of a commercial building are allowed, as long as foaming or frothing agents of a persistent nature are not discharged in sufficient concentrations as to create foaming or frothing in the storm drainage system. In addition, no discharge is permitted in violation of an existing NPDES, LPDES, or LWDPS permit irrespective of any allowances cited herein or deemed acceptable under the Drainage Disposal Law.

These requirements are in addition to and supersede the conditions included in the following table. The following table included with this technical memorandum provides the non-storm water discharge categories defined by the permittees to be exempt from the prohibition on non-storm water discharges as required by the permit.

LIST OF NON-STORM WATER DISCHARGE CATEGORIES EXEMPT FROM PROHIBITION OF NON-STORM WATER DISCHARGES TO THE MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) OF JEFFERSON PARISH, LA

Category	Conditions	Reasons for Determination
Discharge of potable water from operation and maintenance of the municipal water treatment and supply system (i.e., distribution system flushing, storage tank flushing, etc.)	None	Consists of the discharge of treated potable water
Runoff from Industrial/Commercial Lawn Care	Does not include runoff from areas where chemicals and/or equipment are stored.	Consists of the discharge of water applied to landscaped areas around commercial or industrial buildings. Lawn care stewardship practices (fertilizer, herbicide. and pesticide use) will be promoted through the public educational program. State regulations currently exist which govern the legal application of these products.
Runoff from large managed turf areas such as municipal or commercial golf courses, parks and cemeteries	Should fertilizer, pesticides or herbicides become a problem in the MS4, Jefferson Parish reserves the right to require a permit for the discharge of water from these areas.	Consists of discharge of water applied for irrigation. Lawn care stewardship practices (fertilizer, herbicide and pesticide use) will be promoted through the public education program. State regulations currently exist which govern the legal application of these products.
Groundwater discharges to canals from water table	None	Consists of the discharge of uncontaminated groundwater from naturally occurring processes
Groundwater and accumulated rain water discharges from construction de-watering	The discharge must be in accordance with appropriate Best Management Practices	Consists of the discharge of uncontaminated pumped groundwater and accumulated rain water.
Runoff from residential home and car washing	Non-commercial	Consists of the discharge of treated water with some chemicals (soaps, etc.) which is considered to have negligible water quality effects due to the low volume, low intermittent nature of the discharge. Home stewardship practices will be promoted through the public education program.

Category	Conditions	Reasons for Determination
Runoff from industrial or commercial building or parking lot washing	None	Consists of the discharge of treated water with some chemicals (soaps, etc.) which is considered to have negligible water quality effects due to the low volume, intermittent nature of the discharge. Appropriate use of commercial cleaners will be promoted through the public education program.
Charity car wash events	None	Intermittent, low volume has negligible effect on MS4. Appropriate use of cleaners will be promoted through the public education program.
Groundwater discharges from foundation drain or sump pumps	None	Consists of the discharge of uncontaminated groundwater and rain water.
Condensation from exterior central air conditioning systems	None	No contact with sources of contamination
Discharge from drainage and maintenance of swimming pools	None	Consists of the discharge of water, intermittent in nature and negligible in quantity. Due to the nature of the MS4, i.e. large open conveyance canals, chlorinated discharges are not significant sources of pollutants.
Wash water form street sweeping and cleaning	Incidental wash water from mechanical street sweepers	Consists of discharge water in minimal amounts. Incidental and intermittent in nature.
Discharges from Fire Prevention and Control	None	Public safety. Discharge consists of potable water and approved firefighting chemicals. Intermittent and low volume in nature, therefore considered to have negligible impact on water quality.

JEFFERSON PARISH

LIST OF LPDES PERMITTED DISCHARGES TO THE MS4

Facility Name	LPDES Permit Number	Permit Type	Start Date	Street Address	City	State	Zipcode
1708 Manhattan LLC	LAG534612	Gen-LAG53-Sanitary Class I	3/27/2013	1708 Manhattan Blvd	Harvey	LA	70058
A-1 Electrical Contractors Inc - Harvey Facility	LAG535431	Gen-LAG53-Sanitary Class I	7/21/2016	2783 Lapalco Blvd	Harvey	LA	70058
AAA Cooper Transportation	LAR05M415	Gen-LAR05-Multi-Sector	8/17/1999	620 Dakin St	Jefferson	LA	70121
ABF Freight Systems Inc	LAR05M036	Gen-LAR05-Multi-Sector	5/27/1993	400 Shrewsbury Rd	Jefferson	LA	70121
ACL Transportation Services LLC - Harahan Facility	LAG030084	Gen-LAG03-Vessel Cleaning	5/27/1993	5800 River Rd	Harahan	LA	70123
Adams Land & Marine Ltd	LAG480652	Gen-LAG48-Light Commercial	4/29/2009	141 Maxwell Ln	Marrero	LA	70072
Aircraft Service International Inc	LAR05N236	Gen-LAR05-Multi-Sector	8/25/1999	New Orleans International Airport	Kenner	LA	70141
Airgas Priority Nitrogen LLC	LAG480973	Gen-LAG48-Light Commercial	9/29/1995	1101 Destrehan Ave	Harvey	LA	70058
Airline Salvage Inc	LAR05M467	Gen-LAR05-Multi-Sector	8/17/1999	6900 Airline Hwy	Metairie	LA	70003
Alsadik Inc - Super Discount Zone	LAG531291	Gen-LAG53-Sanitary Class I	5/27/1993	2120 Lapalco Blvd	Harvey	LA	70058
American River Transportation Co LLC - New Orleans Shipyard	LAG030038	Gen-LAG03-Vessel Cleaning	8/17/1999	8400 River Rd	Waggaman	LA	70094
American Tugs Inc	LAG530868	Gen-LAG53-Sanitary Class I	8/17/1999	1304 Peters Rd	Harvey	LA	70058
Ames Car Wash	LAG751108	Gen-LAG75-Exterior Vehicle Wash	3/2/2018	3450 Ames Blvd	Marrero	LA	70072
Anthony Savarino Crane & Rigging Inc	LAR05N602	Gen-LAR05-Multi-Sector	2/5/2004	1000 Justin Rd	Metairie	LA	70001
A-Port LLC	LAG480806	Gen-LAG48-Light Commercial	4/16/2009	103 Caminada Rd	Grand Isle	LA	70358
A-Quality Auto Sales	LAG750047	Gen-LAG75-Exterior Vehicle Wash	5/27/1993	1420 N Causeway Blvd	Metairie	LA	70001
Archdiocese of New Orleans - St Joachim Church	LAG535529	Gen-LAG53-Sanitary Class I	4/18/2017	5505 Barataria Blvd	Marrero	LA	70072
Armstrong Properties - Barataria Apartments	LAG530039	Gen-LAG53-Sanitary Class I	8/17/1999	Hwy 301	Barataria	LA	70036
Ashton Marine LLC	LAR05N601	Gen-LAR05-Multi-Sector	9/8/1997	1200 Peters Rd	Harvey	LA	70058
Ashton Marine LLC	LAG534748	Gen-LAG53-Sanitary Class I	9/8/1997	1200 Peters Rd	Harvey	LA	70058
Atlantic Aviation Services	LAR05M043	Gen-LAR05-Multi-Sector	8/17/1999	4000 Bainbridge Ave	Kenner	LA	70141
Atlantic Aviation Services	LAR05N560	Gen-LAR05-Multi-Sector	5/27/1993	200 Crofton Rd	Kenner	LA	70062
Avondale Container Yard Inc	LAG480159	Gen-LAG48-Light Commercial	8/17/1999	101 Avondale Garden Rd	Avondale	LA	70094
Avondale Engineering & Construction Co	LAG531872	Gen-LAG53-Sanitary Class I	6/30/2005	431 Latigue Rd	Waggaman	LA	70094
Avondale Field Production Facility	LAG33A885	Gen-LAG33-Coastal	8/9/1999	Hwy 90	Avondale	LA	70094
Avondale Marine LLC	LAG030115	Gen-LAG03-Vessel Cleaning	5/27/1993	5100 River Rd	Avondale	LA	70094
B&G Crane Service LLC	LAR05N009	Gen-LAR05-Multi-Sector	5/27/1993	725 Central Ave	Jefferson	LA	70121
Barataria Field Production Facility #1	LAG33A742	Gen-LAG33-Coastal	5/20/2005	Hwy 3257, 0.4 Mi SW of	Barataria	LA	70036
Barataria Tavern LLC	LAG535664	Gen-LAG53-Sanitary Class I	10/30/2017	3335 Barataria Blvd	Marrero	LA	70072
Bayou Segnette Field	LAG33A196	Gen-LAG33-Coastal	5/27/1993	1.1 Mi SW on Van Ness Dr 3 Mi S of	Westwego	LA	70094
Bearing Service & Supply Inc	LAG535388	Gen-LAG53-Sanitary Class I	8/21/2000	2576 Lester St	Harvey	LA	70058
Belle Chasse Marine Transportation LLC - Ama Launch Station	LAG531132	Gen-LAG53-Sanitary Class I	12/18/2000	153 W Third St	Kenner	LA	70062
Best Chevrolet Inc	LAG470096	Gen-LAG47-Auto Repair/Dealers	5/27/1993	2600 Veterans Memorial Blvd	Kenner	LA	70062
Beverly Industries Inc - Sandpit	LAG490070	Gen-LAG49-Sand and Gravel	7/17/2007	off Hwy 541 (River Rd)	Bridge City	LA	70096
Beverly Industries LLC	LAG490022	Gen-LAG49-Sand and Gravel	7/10/1998	1215 River Rd	Bridge City	LA	70094
Beverly Industries LLC	LAG490121	Gen-LAG49-Sand and Gravel	8/17/1999	500.5 River Rd right descending bank of MS River MP 102.4	Westwego	LA	70094
Beverly Industries LLC	LAG110229	Gen-LAG11-Concrete/Asphalt	2/23/2009	1215 River Rd	Bridge City	LA	70094
Blue Dolphin Properties LLC - Blue Dolphin Properties LLC Facility	LAG530615	Gen-LAG53-Sanitary Class I	8/17/1999	2504 Hwy 1	Grand Isle	LA	70358
Blue Water Villas LLC - Blue Water Villas	LAG534032	Gen-LAG53-Sanitary Class I	2/17/2012	2685 Hwy 1	Grand Isle	LA	70358
Bommer Properties LLC - Bayou Barataria RV Park	LAG542058	Gen-LAG54-Sanitary Class II	12/30/2014	2541 Bayou Rd	Harvey	LA	70058
Bonnie's Hair Salon	LAG532927	Gen-LAG53-Sanitary Class I	5/13/2008	2572 Hwy 70 S	Pierre Part	LA	70339
Boutte's Bayou Restaurant LLC	LAG535528	Gen-LAG53-Sanitary Class I	3/31/2017	5134 Boutte St	Lafitte	LA	70067
Bridgeside Marina Inc - Bridge Side Cabins & Marina	LAG541570	Gen-LAG54-Sanitary Class II	5/25/2006	1618 Hwy 1	Grand Isle	LA	70358
Bridgeside Marina Inc - Bridge Side Cabins & Marina	LAR05N903	Gen-LAR05-Multi-Sector	5/25/2006	1618 Hwy 1	Grand Isle	LA	70358
Bridgeside Marina Inc dba Wakeside Marina	LAG535658	Gen-LAG53-Sanitary Class I	8/22/2017	1615 Hwy 1	Grand Isle	LA	70358
Brookwood-Labarre LLC - Cubesmart Labarre	LAG535766	Gen-LAG53-Sanitary Class I	6/6/2018	2500 Airline Dr	New Orlea	LA	70001
Brothers Food Mart #111	LAG830342	Gen-LAG83-Petroleum UST Rem	9/10/1999	2698 Barataria Blvd	Marrero	LA	70072
Buckeye Marrero Terminal LLC - Marrero Terminal	LAG670231	Gen-LAG67-Hydrostatic Test	5/27/1993	5200 River Rd	Marrero	LA	70072
Buckeye Marrero Terminal LLC - Marrero Terminal	LAG534576	Gen-LAG53-Sanitary Class I	5/27/1993	5200 River Rd	Marrero	LA	70072
Buckeye Marrero Terminal LLC - Marrero Terminal	LA0003816	Indiv-Minor Industrial	5/27/1993	5200 River Rd	Marrero	LA	70072
BWC Harvey LLC - Harvey Terminal	LA0126890	Indiv-Minor Industrial	6/9/1991	1805 Fourth St	Harvey	LA	70058
BWC New Orleans LLC - Westwego Terminal	LA0073679	Indiv-Minor Industrial	7/1/1980	660 La Bauve Dr	Westwego	LA	70094
C&C Coatings LLC	LAG030072	Gen-LAG03-Vessel Cleaning	5/27/1993	2900 Peters Rd	Harvey	LA	70058
Cafe Du Monde	LAG531019	Gen-LAG53-Sanitary Class I	8/25/1999	1820 Airline Hwy	Metairie	LA	70001
Cajun Holiday Motel Inc - Cajun Holiday Motel	LAG535650	Gen-LAG53-Sanitary Class I	10/24/2017	1737 Hwy 1	Grand Isle	LA	70358
Cargill Inc - Westwego Marine Terminal	LA0046485	Indiv-Minor Industrial	8/23/1993	933 River Rd	Westwego	LA	70094
Carlo Ditta Inc - Plant #1	LAG110026	Gen-LAG11-Concrete/Asphalt	5/27/1993	1445 Macarthur Ave	Harvey	LA	70058
Carnival Wrecker Service LLC	LAG531407	Gen-LAG53-Sanitary Class I	2/26/2003	2565 Breaux Ave	Harvey	LA	70058
CC Land LLC	LAG530770	Gen-LAG53-Sanitary Class I	9/10/1997	2150 Lapalco Blvd	Harvey	LA	70058
Champion Builders LLC - Bay Wind Resorts	LAG541891	Gen-LAG54-Sanitary Class II	8/29/2011	Boudreaux Ln	Grand Isle	LA	70358
Chet Morrison Contractors LLC - Administrative Office & Parking Facility	LAG533073	Gen-LAG53-Sanitary Class I	5/5/2009	3449 Peters Rd	Harvey	LA	70058
Chet Morrison Contractors LLC - Harvey Fab	LAG480833	Gen-LAG48-Light Commercial	9/10/1997	3434 Peters Rd	Harvey	LA	70058

Circle K #8295	LAG530132	Gen-LAG53-Sanitary Class I	8/17/1999	1601 Lapalco Blvd	Harvey	LA	70058
Clint Jacob - Jake's Towing & Salvage	LAR05P838	Gen-LAR05-Multi-Sector	9/4/1997	5901 Hwy 90	Avondale	LA	70094
Coastal Petroleum Transport LLC	LAG531803	Gen-LAG53-Sanitary Class I	5/27/1993	3824 Peters Rd	Harvey	LA	70058
Coca-Cola Bottling Co United Inc	LAR05Q076	Gen-LAR05-Multi-Sector	9/21/1998	5601 Citrus Blvd	Harahan	LA	70123
Cochiara Corp - Cochia a Marina	LAG531450	Gen-LAG53-Sanitary Class I	9/10/1999	4477 Jean Lafitte Blvd	Lafitte	LA	70067
Conley Marine Services LLC	LAR05Q046	Gen-LAR05-Multi-Sector	6/15/1999	600 Peters Rd	Harvey	LA	70058
Conley Marine Services LLC	LAG030120	Gen-LAG03-Vessel Cleaning	6/15/1999	600 Peters Rd	Harvey	LA	70058
Cooper Consolidated L.C	LAG030009	Gen-LAG03-Vessel Cleaning	8/17/1999	8608 River Rd	Live Oak M	LA	70037
Cooper Consolidated L.C - Azalea Fleet	LAG030097	Gen-LAG03-Vessel Cleaning	5/27/1993	9600 River Rd	Waggaman	LA	70094
Cooper Consolidated L.C - Azalea Fleet	LAG534957	Gen-LAG53-Sanitary Class I	5/27/1993	9600 River Rd	Waggaman	LA	70094
Cornerstone Chemical Company	LA0004367	Indiv-Major-Industrial	5/27/1993	10800 River Rd	Waggaman	LA	70094
CP Marine Services LLC	LAG030057	Gen-LAG03-Vessel Cleaning	1/13/2016	4881 Everard St	Marrero	LA	70072
Crane & Templet I Am Blessed Properties LLC	LAG470405	Gen-LAG47-Auto Repair/Dealers	2/12/2007	1913 Peters Rd	Harvey	LA	70058
Cross Road Centers Transportation LLC	LAR05Q068	Gen-LAR05-Multi-Sector	2/12/2003	32 E Airline Hwy	Kenner	LA	70062
D&D Construction LA LLC - Harvey Yard	LAG536342	Gen-LAG53-Sanitary Class I	2/10/2021	1080 Peters Rd	Harvey	LA	70058
DAA Holdings LLC - Manhattan Blvd Seafood & Meat Market	LA0127079	Indiv-Minor Industrial	5/10/2013	2140 Manhattan Blvd	Harvey	LA	70058
Daily Equipment Co	LAG480903	Gen-LAG48-Light Commercial	5/27/1993	5450 Mounes St	Harahan	LA	70123
Deep South Fabrication LLC - Harvey Site	LAG481120	Gen-LAG48-Light Commercial	11/21/2013	3450 Peters Rd	Harvey	LA	70058
Delta Auto Wreckers Inc	LAR05M589	Gen-LAR05-Multi-Sector	8/17/1999	7000 Airline Dr	Metairie	LA	70003
Delta Coatings Inc - Westwego Yard	LAR05Q172	Gen-LAR05-Multi-Sector	6/11/2014	W of 9581 Westbank Expy	Westwego	LA	70121
Deltide Fishing & Rental Tools Inc	LAR05P625	Gen-LAR05-Multi-Sector	12/14/2012	1131 Peters Rd	Harvey	LA	70058
DG Louisiana LLC - Dol ar General #10588	LAG534827	Gen-LAG53-Sanitary Class I	6/11/2014	2101 Lapalco Blvd	Harvey	LA	70058
Diamond B Construction Co LLC - Westwego Asphalt Facility	LAR05P694	Gen-LAR05-Multi-Sector	11/20/2013	710 River Rd	Westwego	LA	70094
Diamond Painting & Sandblasting LLC	LAR05Q132	Gen-LAR05-Multi-Sector	7/25/2019	4640 Peters Rd	Harvey	LA	70058
Dimitri Legacy LLC	LAG535696	Gen-LAG53-Sanitary Class I	4/24/2003	145 Briant St	Gretna	LA	70056
Doctor Pipe Inc	LAR05N506	Gen-LAR05-Multi-Sector	10/27/2003	34 E Third St	Kenner	LA	70062
Dog-Gone Purrfect LLC dba Camp Bow Wow Covington LA	LAG536409	Gen-LAG53-Sanitary Class I	9/4/2020	2401 Hickory Ave	Metairie	LA	70003
Don Bohn Buick Pontiac GMC	LAG470316	Gen-LAG47-Auto Repair/Dealers	5/27/1993	3801 Lapalco Blvd	Harvey	LA	70058
Don Bohn Ford	LAG470061	Gen-LAG47-Auto Repair/Dealers	7/20/1999	3737 Lapalco Blvd	Harvey	LA	70058
Don Bohn Used Cars	LAG470217	Gen-LAG47-Auto Repair/Dealers	1/27/2005	3660 Lapalco Blvd	Harvey	LA	70000
Dry Harbor LLC - 1908 Airline Hwy	LAG470488	Gen-LAG47-Auto Repair/Dealers	8/23/1993	1908 Airline Dr	Metairie	LA	70001
DSLD Homes LLC - Bert Tree Park Phase 3	LAR10N950	Gen-LAR10-Construction	7/21/2015	SE of Bent Tree Blvd and Green Briar Dr	Marrero	LA	70072
Dynamic Industries Inc - Harvey Facility	LAG480497	Gen-LAG48-Light Commercial	5/27/1993	2804 Peters Rd	Harvey	LA	70058
EGS Manhattan LLC	LAG534925	Gen-LAG53-Sanitary Class I	9/10/1997	1432 Manhattan Blvd	Harvey	LA	70058
Elliot Kennard Realty LLC - Elliott Kennard Center	LAG535869	Gen-LAG53-Sanitary Class I	9/21/2018	2304 Manhattan Blvd	Harvey	LA	70058
Energy XXI Pipeline LLC - Grand Isle Base Pipeline	LAG480770	Gen-LAG48-Light Commercial	3/28/2011	234 Gas Plant Rd	Grand Isle	LA	70358
Entergy Louisiana LLC - Ninemile Point Electric Generating Plant	LA0003093	Indiv-Major-Industrial	5/27/1993	1617 River Rd	Westwego	LA	70094
Equilon Enterprises LLC - Kenner Terminal	LAG480385	Gen-LAG48-Light Commercial	5/27/1993	143 Firehouse Dr	Kenner	LA	70062
ERA Helicopters LLC - Era Helicopters - New Orleans Base	LAR05P992	Gen-LAR05-Multi-Sector	7/26/2017	200 Crofton Rd	Kenner	LA	70062
ESI Constructors Inc - US Foods - Marrero	LAR10N181	Gen-LAR10-Construction	12/13/2018	7251 River Rd	Marrero	LA	70072
Estelle 2 Drainage Pump Station	LAG533289	Gen-LAG53-Sanitary Class I	10/6/2009	3850 Destrehan Ave	Harvey	LA	70058
FAJ LLC	LAG531643	Gen-LAG53-Sanitary Class I	4/24/2003	2000 Belle Chasse Hwy	Gretna	LA	70056
Fast Fuel Mart LLC	LAG533599	Gen-LAG53-Sanitary Class I	7/9/1999	831 Whitney Ave	Gretna	LA	70056
FBR Investments LLC - Woodview Residences	LAG542332	Gen-LAG54-Sanitary Class II	9/28/2010	2139 Hwy 90	Avondale	LA	70094
FDI Postal Properties I Inc - Grand Isle Post Office	LAG532535	Gen-LAG53-Sanitary Class I	12/5/2007	3393 Hwy 1	Grand Isle	LA	70358
FedEx Express - MSYR	LAR05M075	Gen-LAR05-Multi-Sector	5/27/1993	200 Crofton-B	Kenner	LA	7.01E+08
Ferrellgas	LAG530205	Gen-LAG53-Sanitary Class I	1/4/1999	1933 Peters Rd	Harvey	LA	70058
Fin-Addicts RV Park LLC	LAG535047	Gen-LAG53-Sanitary Class I	4/14/2015	713 Hwy 1	Grand Isle	LA	70358
FMT Shipyard & Repair LLC - Vessel Maintenance Repair & Fabrication Yard	LAG030001	Gen-LAG03-Vessel Cleaning	5/27/1993	3640 Peters Rd	Harvey	LA	70058
Frank L Beier Radio Inc - Boat Stuf	LAG470423	Gen-LAG47-Auto Repair/Dealers	1/20/2005	2499 Peters Rd	Harvey	LA	70058
Freeport McMoran Aviation Terminal	LAR05M056	Gen-LAR05-Multi-Sector	10/5/1994	200 Middle Access Rd	Kenner	LA	70062
Frito-Lay Inc	LAR05N600	Gen-LAR05-Multi-Sector	9/29/1995	721 Elmwood Park Blvd	Harahan	LA	70123
Fuji Oil New Orleans LLC - Fuji Oil New Orleans	LA0127454	Indiv-Minor Industrial	7/25/2018	.2 Mi E of US 90 & Jamie Dr	Avondale	LA	70094
General Chemical LLC	LAR05N796	Gen-LAR05-Multi-Sector	5/27/1993	6526 Fourth St	Marrero	LA	70073
Gilchrist Constructior - Loyola Drive/I-10 Interchange H.011670	LAR10N639	Gen-LAR10-Construction	11/15/2019	Loyola Dr & I-10 interchange	Kenner	LA	70665
Gold Bond Building Products LLC - Westwego Plant	LAR05N233	Gen-LAR05-Multi-Sector	8/22/1991	10 Louisiana St	Westwego	LA	70094
Gootee Construction Inc - Gootee Fabrication	LAG535125	Gen-LAG53-Sanitary Class I	9/24/1999	2245 & 2451 Peters Rd	Harvey	LA	70058
GPS Hospitality Partners IV LLC - Burger King Restaurant #11614	LAG541185	Gen-LAG54-Sanitary Class II	8/17/1999	1840 Lapalco Blvd	Harvey	LA	70058
Graham Packing Co	LAR05N653	Gen-LAR05-Multi-Sector	5/27/1993	201 Jefferson Hwy	Jefferson	LA	70121
Grand Isle 12 CC Production Facility	LAG26A042	Gen-LAG26-Territorial Seas	3/24/2000	Grand Isle Block 16 Field, Grand Isle Area, Block 12 near	Grand Isle	LA	70358
Grand Isle 16 BB Offshore Production Facility - Grand Isle 16	LA0127400	Indiv-Minor Industrial	3/24/2000	Grand Isle Area, Block 16, Grand Isle Block 16 Field, 6.1 Mi SW of	Grand Isle	LA	70358
Grand Isle Property Management LLC - Landry's Quick Stop	LAG536265	Gen-LAG53-Sanitary Class I	7/22/2020	3047 Hwy 1	Grand Isle	LA	70358
Grand Isle Shipyard Inc	LAR05N770	Gen-LAR05-Multi-Sector	5/27/1993	432 Minnich Ln	Grand Isle	LA	70358
Grand Isle Town of - Grand Isle Community Center	LAG530227	Gen-LAG53-Sanitary Class I	5/27/1993	3811 Hwy 1	Grand Isle	LA	70358
Grand Isle Town of - Grand Isle Multiplex Center	LAG533316	Gen-LAG53-Sanitary Class I	11/20/2008	3101 Hwy 1	Grand Isle	LA	70358
Greater New Orleans Landfill	LAR05N752	Gen-LAR05-Multi-Sector	5/27/1993	5700 Hwy 90 W	Avondale	LA	70094

Gretna City of - Potable Water Plant	LAG380055	Gen-LAG38-Potable Water	5/27/1993	100 Fifth St	Gretna	LA	70054
Gretna City of - Wastewater Treatment Plant	LA0041262	Indiv-Major-Sanitary	5/27/1993	1101 Burmaster St	Gretna	LA	70053
Groovy Fishing LLC - Lafitte Facility	LAG535915	Gen-LAG53-Sanitary Class I	1/14/2019	2629 Privateer Blvd	Barataria	LA	70036
Gulf Marine Products Co Inc	LA0006742	Indiv-Minor Industrial	8/17/1999	501 Louisiana St	Westwego	LA	70094
Gulf South Piling & Corstruction Inc	LAR05N862	Gen-LAR05-Multi-Sector	7/5/2000	1250 L&A Rd	Jefferson	LA	70001
Harahan City of - City of Harahan WWTP	LA0043940	Indiv-Major-Sanitary	5/27/1993	1000 Dickory Ave	Harahan	LA	70123
Hard Rock Marine Service LLC	LAG030028	Gen-LAG03-Vessel Cleaning	8/23/1993	709 Jean Lafitte Blvd	Lafitte	LA	70067
Hassel's RV Park LLC	LAG542157	Gen-LAG54-Sanitary Class II	5/7/2003	3826 Peters Rd	Harvey	LA	70058
Heavy Duty Parts & Equipment Inc	LAR05N066	Gen-LAR05-Multi-Sector	1/11/2000	6145 River Rd	Harahan	LA	70123
Hebert's Trucking & Equipment Service LLC	LAG470369	Gen-LAG47-Auto Repair/Dealers	8/1/2012	5110 Carmelite St	Crown Poi	LA	70072
Hinyub & Hinyub Enterprises Inc - Manhattan Carwash	LAG750944	Gen-LAG75-Exterior Vehicle Wash	4/17/2013	1612 Manhattan Blvd	Harvey	LA	70058
Historic Race Cars LLC	LAG470431	Gen-LAG47-Auto Repair/Dealers	9/29/1995	2440 Hickory Ave	Metairie	LA	70003
Holmes Development LLC	LAG535907	Gen-LAG53-Sanitary Class I	11/28/2018	531 Holmes Blvd	Terrytown	LA	70053
Hunting Energy Services Inc	LAG480527	Gen-LAG48-Light Commercial	5/27/1993	6615 River Rd	Marrero	LA	70072
Hurricane Hole Marina	LAG541975	Gen-LAG54-Sanitary Class II	1/25/2013	1850 LA Hwy 1	Grand Isle	LA	70358
Hwy 90 LLC - Hwy 90 C&D Landfill	LAG780020	Gen-LAG78-C&D Landfills	8/1/2002	5000 Hwy 90	Avondale	LA	70094
Hydradyne Hydraulics LLC - Harvey Facility	LAG533479	Gen-LAG53-Sanitary Class I	10/5/1994	2801 Peters Rd	Harvey	LA	70058
Hydril Premium Connections	LAR05M623	Gen-LAR05-Multi-Sector	8/17/1999	201 Klein St	Westwego	LA	70094
Hydril Premium Connections	LAG530942	Gen-LAG53-Sanitary Class I	8/17/1999	201 Klein St	Westwego	LA	70094
IESI LA Corp - East Bank Citizen Trash Drop-Off Site	LAR05P263	Gen-LAR05-Multi-Sector	5/28/1999	400 David Dr	Metairie	LA	70003
IESI LA Corp- Marrero Citizen Trash Drop-Off Site	LAR05P264	Gen-LAR05-Multi-Sector	7/22/1999	6440 Lapalco Blvd	Marrero	LA	70072
Illinois Central Railroad Co - Mays Yard	LAG480147	Gen-LAG48-Light Commercial	5/27/1993	2351 Hickory Ave	Harahan	LA	70123
IMTT-Gretna LLC	LA0003484	Indiv-Minor Industrial	5/27/1993	1145 Fourth St	Harvey	LA	70058
Industrial Welding Supply of Harvey Inc	LAG535590	Gen-LAG53-Sanitary Class I	2/25/2017	1452 Fourth St	Harvey	LA	70058
Insulation Technologies Inc	LAG536225	Gen-LAG53-Sanitary Class I	4/16/2020	1735 Peters Rd	Harvey	LA	70058
Intercoastal Barge Cleaning	LAG030004	Gen-LAG03-Vessel Cleaning	5/27/1993	River Mile 105.15	Jefferson	LA	70181
International-Matex Tank Terminals LLC - Avondale Terminal	LA0075981	Indiv-Minor Industrial	5/27/1993	5450 River Rd	Avondale	LA	70094
Island Dollar & Hardware LLC	LAG535948	Gen-LAG53-Sanitary Class I	2/27/2019	3125 Hwy 1	Grand Isle	LA	70358
Janet Perrin - Jan's Cajun Restaurant	LAG535372	Gen-LAG53-Sanitary Class I	6/9/2016	4831 Jean Lafitte Blvd	Lafitte	LA	70067
JBL Properties LLC - Acadiana Subdivision Phase 5	LAR10N548	Gen-LAR10-Construction	9/5/2019	Augusta Dr at Birchwood Rd & Starkville Dr	Marrero	LA	70072
Jean Lafitte Harbor LLC	LAG540863	Gen-LAG54-Sanitary Class II	8/17/1999	4932 Kenal Rd	Lafitte	LA	70067
Jean Lafitte Properties LLC	LAR05P256	Gen-LAR05-Multi-Sector	9/21/1998	3228 Jean Lafitte Blvd	Lafitte	LA	70056
Jefferson Parish - MS4	LAS000201	Indiv-Major-MS4	1/17/2002	Separate Storm Sewer System	Jefferson	LA	
Jefferson Parish Department Drainage Pump Station - Ames Pump Station	LAG530921	Gen-LAG53-Sanitary Class I	8/17/1999	5100 Rochester Dr	Marrero	LA	70072
Jefferson Parish Department Drainage Pump Station - Cataouatche #1 Pump Station	LAG530922	Gen-LAG53-Sanitary Class I	8/17/1999	3901 Hwy 90	Avondale	LA	70094
Jefferson Parish Department Drainage Pump Station - Cousins Pump Station	LAG530920	Gen-LAG53-Sanitary Class I	8/17/1999	2466 Destrehan Ave	Harvey	LA	70058
Jefferson Parish Department Drainage Pump Station - Westminster & Lincolnshire Pump Station	LAG530923	Gen-LAG53-Sanitary Class I	8/17/1999	2050 Watling Dr	Marrero	LA	70072
Jefferson Parish Department of Sewerage - Bridge City WWTP	LA0042064	Indiv-Major-Sanitary	11/25/1998	1900 Hwy 90	Bridge City	LA	70055
Jefferson Parish Dept of Public Works - Jonathan Davis Plantation	LA0068292	Indiv-Minor-Sanitary	5/27/1993	Hwy 301, 4 MI S of Kerner Bridge	Barataria	LA	70036
Jefferson Parish Dept of Sewerage - Handicapped Accessible Fishing Pier	LAG530271	Gen-LAG53-Sanitary Class I	8/17/1999	5548 Jean Lafitte Blvd	Lafitte	LA	70067
Jefferson Parish Dept of Sewerage - Harvey STP	LA0042081	Indiv-Major-Sanitary	5/27/1993	2343 Pailet St	Harvey	LA	70055
Jefferson Parish Dept of Sewerage - Rosethorne Wastewater Treatment Plant	LA0100846	Indiv-Minor-Sanitary	8/17/1999	865 Jean Lafitte Blvd	Lafitte	LA	70067
Jefferson Parish DPW - East Bank STP	LA0066630	Indiv-Major-Sanitary	5/27/1993	2 Humane Way	Harahan	LA	70123
Jefferson Parish Government - Jefferson Parish Sanitary Landfill	LAR05M138	Gen-LAR05-Multi-Sector	5/27/1993	5800 Hwy 90 W	Avondale	LA	70094
Jefferson Parish Law Enforcement District - 2nd District Substation	LAG533222	Gen-LAG53-Sanitary Class I	8/31/2009	1551 Central Park Blvd	Harvey	LA	70058
Jefferson Parish Law Enforcement District - 3rd District Station	LAG533628	Gen-LAG53-Sanitary Class I	11/5/2010	6001 Leo Kerner Blvd	Marrero	LA	70072
Jefferson Parish Law Enforcement District - 4th District Station	LAG533394	Gen-LAG53-Sanitary Class I	3/10/2010	6228 Airline Dr	Metairie	LA	70003
Jefferson Parish Public School System - Grand Isle High	LAG535473	Gen-LAG53-Sanitary Class I	4/25/2003	149 Ludwig Ln	Grand Isle	LA	70358
Jefferson Parish Water Department - East Jefferson Water Treatment Plant	LAG380037	Gen-LAG38-Potable Water	5/27/1993	3600 Jefferson Hwy	Jefferson	LA	70121
Jefferson Parish Water Department - West Jefferson Water Treatment Plant	LAG380028	Gen-LAG38-Potable Water	5/27/1993	4500 Westbank Expy	Marrero	LA	70072
Jefferson Transit Westbank	LAR05N112	Gen-LAR05-Multi-Sector	5/27/1993	90 First St	Gretna	LA	70053
JMN Specialties Inc - Westwego Facility	LAR05P801	Gen-LAR05-Multi-Sector	8/7/2008	1100 Victory Dr	Westwego	LA	70094
Jobbers Oil Transport Co Inc	LAR05P151	Gen-LAR05-Multi-Sector	6/3/1999	814 Kenner Ave	Kenner	LA	70062
John Early Trucking	LAR05N720	Gen-LAR05-Multi-Sector	11/7/1997	6715 Fourth St	Marrero	LA	70072
John W Stone Oil Distributor LLC - Gretna Terminal	LAG480542	Gen-LAG48-Light Commercial	5/27/1993	87 First St	Gretna	LA	70054
JP & Sons Inc	LAG490010	Gen-LAG49-Sand and Gravel	3/9/2000	8900 River Rd	Waggaman	LA	70094
JRJ Alum-Fab Inc	LAG531183	Gen-LAG53-Sanitary Class I	9/10/1997	3650 Barataria Blvd	Marrero	LA	70072
K&J Truck Repair Services Inc	LAG470350	Gen-LAG47-Auto Repair/Dealers	9/10/1997	724 Peters Rd	Harvey	LA	70058
K&S Diesel Service Inc	LAG470410	Gen-LAG47-Auto Repair/Dealers	5/27/1993	913 Peters Rd	Harvey	LA	70058
Kajun Bahamas Communities LLC	LAG542152	Gen-LAG54-Sanitary Class II	8/3/2016	Redfish Ln & Speckled Trout Ln	Grand Isle	LA	70358
Kansas City Southern Railway Co - New Orleans Yard	LAR05P515	Gen-LAR05-Multi-Sector	5/27/1993	220 Airline Dr	Metairie	LA	7E+08
Kass Bros Inc	LAG490119	Gen-LAG49-Sand and Gravel	11/9/2009	700 River Rd	Westwego	LA	70094
Kass Bros Inc	LAG480600	Gen-LAG48-Light Commercial	11/9/2009	700 River Rd	Westwego	LA	70094
Katie Development LLC & United Properties #1 Corp - New Orleans Wholesale Co	LAG533788	Gen-LAG53-Sanitary Class I	6/9/2011	1616 Manhattan Blvd	Harvey	LA	70058
Kenner City of - Kenner Wastewater Treatment Plant	LA0066800	Indiv-Major-Sanitary	5/27/1993	1 W 30th St	Kenner	LA	70065
Kinder Morgan Delta Terminal Services LLC - Harvey Terminal	LA0056600	Indiv-Minor Industrial	5/27/1993	3540 River Rd	Harvey	LA	70058

Kinder Morgan Seven Oaks LLC - Seven Oaks Terminal	LA0124583	Indiv-Minor Industrial	5/27/1993	106 Seven Oaks Blvd	Westwego	LA	70094
Kort's Construction Services Inc - David Drive Corridor Improvements	LAR10N955	Gen-LAR10-Construction	6/18/2020	David Dr from W Napoleon Ave to Veterans Blvd	Metairie	LA	70003
L&B Kitchen Bath	LAG534907	Gen-LAG53-Sanitary Class I	5/27/1993	1408 Manhattan Blvd	Harvey	LA	70058
L&L Marine Transportation	LAG530738	Gen-LAG53-Sanitary Class I	3/24/2000	1300 Peters Rd	Harvey	LA	70059
LADOTD - Project Engineer's Office	LAG530311	Gen-LAG53-Sanitary Class I	5/27/1993	900 Peters Rd	Harvey	LA	70058
LADOTD - Barataria Bridge	LAG533448	Gen-LAG53-Sanitary Class I	5/19/2010	5170 Fisherman Blvd	Lafitte	LA	70067
LADOTD - District 02 Headquarters	LAR05N203	Gen-LAR05-Multi-Sector	9/10/1999	1440 Hwy 90	Bridge City	LA	70094
LADOTD - District 02 Headquarters	LAG750797	Gen-LAG75-Exterior Vehicle Wash	9/10/1999	1440 Hwy 90	Bridge City	LA	70094
LADOTD - Harvey Canal Bridge	LAG530758	Gen-LAG53-Sanitary Class I	8/17/1999	Fourth St	Harvey	LA	70058
LADOTD - Kenner Maintenance Unit	LAR05N315	Gen-LAR05-Multi-Sector	9/10/1999	166 W Third St	Kenner	LA	70062
LADOTD - Kenner Maintenance Unit	LAG750791	Gen-LAG75-Exterior Vehicle Wash	9/10/1999	166 W Third St	Kenner	LA	70062
LADOTD - Marrero Maintenance Unit	LAG750788	Gen-LAG75-Exterior Vehicle Wash	9/10/1999	1648 Baratari Blvd	Marrero	LA	70072
LADOTD - Marrero Maintenance Unit	LAR05N316	Gen-LAR05-Multi-Sector	9/10/1999	1648 Baratari Blvd	Marrero	LA	70072
Lafarge North America Inc - Westbank Plant	LAG110008	Gen-LAG11-Concrete/Asphalt	6/18/1999	1950 Ames Blvd	Marrero	LA	70073
Lafitte #6 Central Facility Tank Battery #11	LAG33A243	Gen-LAG33-Coastal	1/1/1999	6 Mi SE of	Lafitte	LA	70067
Lafitte Central Facility 10 Tank Battery #8	LAG33A252	Gen-LAG33-Coastal	6/15/1999	8 Mi SE of	Lafitte	LA	70067
Lafitte Commingling Facility #2 Tank Battery #6	LAG33A241	Gen-LAG33-Coastal	6/15/1999	8.2 Mi S of	Lafitte	LA	70067
Lafitte Field CF #8 Tank Battery #13	LAG33A250	Gen-LAG33-Coastal	1/1/1969	9 Mi SE of	Lafitte	LA	70067
Lafitte Field Compressor Station TB #5 & Camp	LAG33A242	Gen-LAG33-Coastal	6/30/1993	6 Mi SW of	Lafitte	LA	70067
Lafitte Frozen Foods Corp - Lafitte Frozen Foods #2	LA0125547	Indiv-Minor Industrial	8/25/1999	2944 Jean Lafitte Blvd	Lafitte	LA	70067
Lafitte Frozen Foods Corporation	LA0058441	Indiv-Minor Industrial	8/17/1999	5165 Caroline St	Lafitte	LA	70067
Lakeside Imports Inc - Lakeside Collision Center	LAG470070	Gen-LAG47-Auto Repair/Dealers	5/27/1993	3224 36th St	Metairie	LA	70001
Landrieu Concrete & Cement Industries LLC - Harvey Concrete Plant	LAG110312	Gen-LAG11-Concrete/Asphalt	4/8/2020	1156 First Ave	Harvey	LA	70058
Lattimore Materials Corp - Airline Ready MixPlant	LAG110005	Gen-LAG11-Concrete/Asphalt	8/17/1999	3320 Airline Dr	Metairie	LA	70001
LDWF - Grand Isle Marine Fisheries Laboratory - WWTP	LA0126947	Indiv-Minor Industrial	6/26/2007	195 Ludwig Ln	Grand Isle	LA	70358
Le Tra Seafood LLC	LAG535414	Gen-LAG53-Sanitary Class I	8/11/2000	2540 Breaux Ave	Harvey	LA	70058
Leson Chevrolet Co Inc	LAG470171	Gen-LAG47-Auto Repair/Dealers	5/27/1993	1501 Westbank Expy	Harvey	LA	70058
Lisa Green Campbell dba State Farm Insurance Inc	LAG534861	Gen-LAG53-Sanitary Class I	4/17/2013	1402 Manhattan Blvd	Harvey	LA	70058
Little Lake Field Facility	LAG33A028	Gen-LAG33-Coastal	9/11/2002	11 Mi E of Cut Off, 9.5 Mi SSW of	Lafitte	LA	70067
Louis Armstrong New Orleans International Airport	LAR05M023	Gen-LAR05-Multi-Sector	5/27/1993	900 Airline Hwy	Kenner	LA	70062
Louisiana Machinery Co LLC - Force Power Systems LLC - Harvey Facility	LAG481060	Gen-LAG48-Light Commercial	8/31/2000	751 Peters Rd	Harvey	LA	70058
Malkem International Corp	LAR05N464	Gen-LAR05-Multi-Sector	5/14/2002	74 First St	Gretna	LA	70053
Manila Village Central Facility	LAG33B197	Gen-LAG33-Coastal	4/4/2016	17 Mi N of	Grand Isle	LA	70000
Manila Village Commingling Facility #1	LAG33A968	Gen-LAG33-Coastal	8/26/2009	14.2 Mi SE of	Lafitte	LA	70067
Marco Group International IncRathborne Property Inc	LAG530452	Gen-LAG53-Sanitary Class I	8/17/1999	901 Peters Rd	Harvey	LA	70058
Marine Industrial Gears & Services LLC	LAG535481	Gen-LAG53-Sanitary Class I	8/2/2016	2201 St Joseph Ln	Harvey	LA	70058
Marmac LLC - McDonough Marine Service - Harvey Canal Fleet	LAG030076	Gen-LAG03-Vessel Cleaning	2/12/2001	Harvey Canal Mile 3-5	Harvey	LA	70058
Modern American Recycling	LAR05P083	Gen-LAR05-Multi-Sector	10/10/2008	8900 River Rd	Waggaman	LA	70094
Modern Metals Recycling LLC - Modern Metals Recycling	LAR05Q064	Gen-LAR05-Multi-Sector	5/27/1993	2465 Destrehan Ave	Harvey	LA	70058
Morgan City Harbor & Terminal District - Port of Morgan City	LAR05P834	Gen-LAR05-Multi-Sector	9/21/1998	800 Youngs Rd	Morgan Cit	LA	70380
Mosca's Restaurant	LAG533261	Gen-LAG53-Sanitary Class I	9/18/2009	4137 Hwy 90 W	Westwego	LA	70094
MP Higgins LLC	LAG540905	Gen-LAG54-Sanitary Class II	8/17/1999	6533 River Rd	Waggaman	LA	70094
National Maintenance & Repair - Harahan Shipyard	LAG030003	Gen-LAG03-Vessel Cleaning	9/27/2001	5004 River Rd	Harahan	LA	70123
New Orleans Paddlewheels Inc - Jean Lafitte Swamp Tours	LAG535992	Gen-LAG53-Sanitary Class I	4/25/2019	6601 Leo Kerner Pkwy	Marrero	LA	70072
North Half Tank Battery - Little Lake Field	LAG33A546	Gen-LAG33-Coastal	3/7/2006	8 Mi SW of	Lafitte	LA	70067
North Little Lake Facility	LAG33A227	Gen-LAG33-Coastal	1/11/2000	8.6 Mi SE of	Lafitte	LA	70067
Oak Trailer Park	LAG541453	Gen-LAG54-Sanitary Class II	4/5/2006	7427 Barataria Blvd	Crown Poi	LA	70072
Ochsner Clinic Foundation - Ochsner Health System - Jefferson Highway Facility	LA0006751	Indiv-Minor Industrial	5/27/1993	1514 Jefferson Hwy	Jefferson	LA	70121
Old Dominion Freight Line Inc - NOL	LAR05Q115	Gen-LAR05-Multi-Sector	9/10/1999	1112 Dakin St	New Orlea	LA	7.01E+08
Old Man River LLC	LAG535308	Gen-LAG53-Sanitary Class I	3/21/2016	2125 Hwy 90 W	Avondale	LA	70094
Olwell Enterprises LLC - Wego Car Wash	LAG751176	Gen-LAG75-Exterior Vehicle Wash	1/14/2021	109 Westbank Expy	Westwego	LA	70094
One Hour Angel Dry Cleaners Inc	LAG530403	Gen-LAG53-Sanitary Class I	5/27/1993	2153 Lapalco Blvd	Harvey	LA	70058
Pelican Pointe Subdivision	LAG541161	Gen-LAG54-Sanitary Class II	9/19/2003	299 Lafourche Ave	Grand Isle	LA	70358
Pellerin Milnor Corp	LAR05N532	Gen-LAR05-Multi-Sector	5/27/1993	700 Jackson St	Kenner	LA	70062
PHIBEV LLC - 672 Seven Oaks Building	LAG470464	Gen-LAG47-Auto Repair/Dealers	7/9/2018	672 Seven Oaks Blvd	Bridge City	LA	70094
Pirate's Cove Condominium Association Inc	LAG530717	Gen-LAG53-Sanitary Class I	5/27/1993	411 Admiral Craik Dr	Grand Isle	LA	70358
Pirate's Cove Landing Condominium Owners Association Inc	LAG540571	Gen-LAG54-Sanitary Class II	5/27/1993	off Hwy 1 E end of	Grand Isle	LA	70358
Progressive Barge Line Inc	LAG530877	Gen-LAG53-Sanitary Class I	8/17/1999	RM 101.6 rdb ft of LA Ave & River Rd	Westwego	LA	70096
Public Storage Inc	LAG530678	Gen-LAG53-Sanitary Class I	8/17/1999	1850 Lapalco Blvd	Harvey	LA	70058
Pull-A-Part of New Orleans West LLC	LAR05N923	Gen-LAR05-Multi-Sector	5/27/1993	4401 Peters Rd	Harvey	LA	70058
QuarterNorth Energy LLC - Grand Isle Tank Battery	LAG480018	Gen-LAG48-Light Commercial	1/1/1969	4529 Hwy 1	Grand Isle	LA	70358
Queen Bess Bay LLC - Queen Bess Marina Estates	LAG560315	Gen-LAG56-Sanitary Class III	9/12/2001	298 Nacarri Ln	Grand Isle	LA	70358
Queen Bess Production Facility - Queen Bess Field	LAG33A121	Gen-LAG33-Coastal	7/9/2004	6.7 Mi NE of	Grand Isle	LA	70358
Quikrete of New Orleans	LAR05M317	Gen-LAR05-Multi-Sector	5/27/1993	200 Hord St	Harahan	LA	70123
Reagan Power & Compression LLC	LAG480039	Gen-LAG48-Light Commercial	5/27/1993	2230 St Joseph Rd	Harvey	LA	70054
Reliable Soil Co Inc	LAR05P134	Gen-LAR05-Multi-Sector	9/29/1995	701 Rev Richard Wilson Dr	Kenner	LA	70062

Repair Center Holdings LLC - Ray Brandt Collision Center	LAG470457	Gen-LAG47-Auto Repair/Dealers	9/21/2017	7021 Airline Hwy	Metairie	LA	70003
Retif Oil & Fuel LLC - Harvey Facility	LA0109428	Indiv-Minor Industrial	5/27/1993	527 Destrehan Ave	Harvey	LA	70058
Richard's Disposal Inc	LAG481167	Gen-LAG48-Light Commercial	3/18/1999	11600 Old Gentilly Rd	New Orlea	LA	70129
Richard's Disposal Inc	LAR05M800	Gen-LAR05-Multi-Sector	3/2/2000	11441 Almonaster Blvd	New Orlea	LA	70128
River Birch LLC - River Birch Landfill	LA0099473	Indiv-Minor Industrial	6/15/1999	2000 S Kenner Rd	Avondale	LA	70094
River Parish Disposal LLC	LA0100757	Indiv-Minor Industrial	3/8/1995	7201 Airline Dr	Metairie	LA	70003
Riverside Food Distributors LLC - F Christiana & Co	LA0083216	Indiv-Minor Industrial	5/27/1993	7251 River Rd	Marrero	LA	70072
Riverside Metals LLC - Vertex Recovery Management of Louisiana	LAR05Q182	Gen-LAR05-Multi-Sector	7/11/2005	4390 Peters Rd	Harvey	LA	70058
Riverside Metals LLC - Vertex Recovery Management of Louisiana	LAG536248	Gen-LAG53-Sanitary Class I	7/11/2005	4390 Peters Rd	Harvey	LA	70058
Riverside Used Auto Parts Inc	LAG530846	Gen-LAG53-Sanitary Class I	9/17/1997	4604 River Rd	Marrero	LA	70072
Riverside Used Auto Parts Inc	LAR05M609	Gen-LAR05-Multi-Sector	9/17/1997	4604 River Rd	Marrero	LA	70072
S&S Machine & Marine Fabricators LLC	LAG535109	Gen-LAG53-Sanitary Class I	7/6/2015	2149 St Joseph Ln	Harvey	LA	70058
Safety-Kleen Systems Inc - Jefferson Plant	LAG480080	Gen-LAG48-Light Commercial	5/27/1993	3000 Airline Dr	Metairie	LA	7E+08
Saia Motor Freight Line LLC	LAR05M508	Gen-LAR05-Multi-Sector	5/27/1993	3301 Andover St	Jefferson	LA	70181
Salathe Gas Co LLC	LAG535335	Gen-LAG53-Sanitary Class I	4/28/1999	2145 Peters Rd	Harvey	LA	70058
Saturday Island Facility #1	LAG33A129	Gen-LAG33-Coastal	10/16/2002	17 Mi N of	Lafitte	LA	
SEMCO LLC - Crown Point Facility	LAG531965	Gen-LAG53-Sanitary Class I	5/27/1993	186 Jean Lafitte Blvd	Lafitte	LA	70067
SEMCO LLC - Crown Point Facility	LAR05M423	Gen-LAR05-Multi-Sector	5/27/1993	186 Jean Lafitte Blvd	Lafitte	LA	70067
Shady Oaks Mobile Home Park	LAG540639	Gen-LAG54-Sanitary Class II	5/27/1993	4868 Orleans Way	Marrero	LA	70072
Shell Pipeline Co LP - Barataria Pump Station	LAG535380	Gen-LAG53-Sanitary Class I	12/21/2000	8336 Hwy 45 2 Mi SW of	Crown Poi	LA	70072
Sidney Delaney & Relle Land & Improvement - Lapalco Shopping Center	LAG530217	Gen-LAG53-Sanitary Class I	5/27/1993	2500 Lapalco Blvd	Harvey	LA	70058
Sidney M Delaney LLC - Relle Land	LAG530440	Gen-LAG53-Sanitary Class I	8/17/1999	2544 Lapalco Blvd	Harvey	LA	70058
Sidney's Dales Quality Car Care Co - Dale's Quality Car Care	LAG470392	Gen-LAG47-Auto Repair/Dealers	5/27/1993	1414 Manhattan Blvd	Harvey	LA	70058
SL 21724 Three Bayou Bay	LAG33B236	Gen-LAG33-Coastal	4/13/2018	9 Mi S of	Lafitte	LA	70000
SLAS Marine Inc	LAG531293	Gen-LAG53-Sanitary Class I	8/13/2001	5057 Kenal Rd	Lafitte	LA	70067
SLAS Marine Inc - Jean Lafitte Condominiums LLC	LAG536050	Gen-LAG53-Sanitary Class I	7/15/2019	5155 Kenal Rd	Lafitte	LA	70067
SLAS Marine Inc - SLAs Boat Storage	LAG536371	Gen-LAG53-Sanitary Class I	12/16/2020	5155 Kenal Rd	Lafitte	LA	70067
South Enterprises Inc	LAG535484	Gen-LAG53-Sanitary Class I	12/29/2016	5616 Jean Lafitte Blvd	Lafitte	LA	70067
Southeast Louisiana Flood Protection Authority	LA0106607	Indiv-Minor Industrial	10/5/1994	7001 River Rd	Marrero	LA	70072
Southeastern Freight Lines	LAR05P619	Gen-LAR05-Multi-Sector	8/17/1999	1525 Sam's Ave	Harahan	LA	70123
Southern Recycling LLC	LAR05M687	Gen-LAR05-Multi-Sector	8/17/1999	50 Labauve Dr	Westwego	LA	70094
Southwest Airlines	LAR05M059	Gen-LAR05-Multi-Sector	8/17/1999	900 Airline Hwy Concourse B	Kenner	LA	70141
Sports & Imports	LAG470203	Gen-LAG47-Auto Repair/Dealers	5/27/1993	2433 Hickory Ave	Metairie	LA	70003
Square Two Village of Lafitte RV Park	LAG530514	Gen-LAG53-Sanitary Class I	5/27/1993	5394 Jean Lafitte Blvd	Lafitte	LA	70067
Starfish Restaurant	LAG533849	Gen-LAG53-Sanitary Class I	4/22/2008	3027 Hwy 1	Grand Isle	LA	70358
State Lease 17780 Production Facility #1 - S Little Lake Field	LAG33A018	Gen-LAG33-Coastal	10/1/2003	Little Lake 14 Mi S of	Lafitte	LA	70067
State Machinery	LAR05P030	Gen-LAR05-Multi-Sector	5/27/1993	160 W Airline Hwy	Kenner	LA	70063
Stewart & Stevenson LLC - New Orleans Branch Facility	LAG480221	Gen-LAG48-Light Commercial	5/27/1993	1400 Destrehan Ave	Harvey	LA	70058
Strike King Production Facility - Little Lake Field	LAG33A554	Gen-LAG33-Coastal	3/15/2006	9.3 Mi SW of	Lafitte	LA	70067
Superior Energy Services LLC	LAR05M825	Gen-LAR05-Multi-Sector	6/4/1999	1105 Peters Rd	Harvey	LA	70058
Survival Systems International Inc	LAR05N637	Gen-LAR05-Multi-Sector	5/27/1993	931 Industry Rd	Kenner	LA	70062
T T Coatings LLC	LA0065048	Indiv-Minor Industrial	5/27/1993	2012 River Rd	Westwego	LA	70094
T&G Motors LLC (formerly) FNO AG LLC dba Cadillac of New Orleans	LAG470115	Gen-LAG47-Auto Repair/Dealers	5/27/1993	3100 Lime St	Metairie	LA	70006
Tahiti East Inc - Tahiti East Campground	LAG541530	Gen-LAG54-Sanitary Class II	10/31/2006	LA Hwy 1 @ Tahiti East Ln	Grand Isle	LA	70358
The McPherson Companies Inc - McPherson Harvey Facility	LAG481015	Gen-LAG48-Light Commercial	7/23/2002	2226 Peters Rd	Harvey	LA	70058
Tho Tran - Rental Building	LAG534889	Gen-LAG53-Sanitary Class I	3/14/2014	1500 Manhattan Blvd	Harvey	LA	70058
Tom's Marine & Salvage LLC	LAG030017	Gen-LAG03-Vessel Cleaning	11/27/2012	3008 Jean Lafitte Blvd	Lafitte	LA	70067
Total Environmental Solutions Inc - Rosethorne Subdivision	LAG540738	Gen-LAG54-Sanitary Class II	5/27/1993	off August Ln on Lester St	Lafitte	LA	70067
Total Marine Services of Jefferson Inc	LAG030041	Gen-LAG03-Vessel Cleaning	9/10/1997	2057 Destrehan Ave	Harvey	LA	70058
Trans Gulf Industrial Inc	LAR05M631	Gen-LAR05-Multi-Sector	7/26/1999	6101 Humphreys St	Harahan	LA	7.01E+08
Tri Native Contractors Inc	LAR05P172	Gen-LAR05-Multi-Sector	10/22/2008	4839 Orleans Way	Marrero	LA	70072
Trulite Glass & Aluminum Solutions	LAR05P969	Gen-LAR05-Multi-Sector	5/11/2017	5716 Jarvis St	Elmwood	LA	70123
Turn Services LLC - Algiers Barge Cleaning & Minor Repair Facility	LAG030112	Gen-LAG03-Vessel Cleaning	9/29/1995	3800 Patterson Rd	Algiers	LA	70114
Union Pacific Railroad - Avondale Yard	LAG480135	Gen-LAG48-Light Commercial	5/27/1993	5245 River Rd	Avondale	LA	70094
United Parcel Service Inc (UPS)	LAR05M571	Gen-LAR05-Multi-Sector	5/27/1993	4500 Firestone Rd	Metairie	LA	71232
United Parcel Service Inc (UPS)	LAR05M145	Gen-LAR05-Multi-Sector	8/17/1999	200 Crofton Rd	Kenner	LA	70123
Urania E&P Facility - Wildcat Field	LAG33A881	Gen-LAG33-Coastal	7/28/2003	0.5 Mi S of Hwy 90	Avondale	LA	70094
US Air	LAR05M044	Gen-LAR05-Multi-Sector	8/17/1999	900 Airline Dr Concourse A	Kenner	LA	70141
US Minerals Inc - Harvey Plant	LAG480174	Gen-LAG48-Light Commercial	8/17/1999	3860 Peters Rd	Harvey	LA	70058
USArmy COE - Harvey Lock	LAG531171	Gen-LAG53-Sanitary Class I	5/27/1993	1 Alex Ln	Harvey	LA	70058
USCG - Grand Isle Station	LAG540877	Gen-LAG54-Sanitary Class II	5/27/1993	Hwy 1 1.5 Mi N of	Grand Isle	LA	70358
Voleo's Pizza LLC - Voleo's Seafood Restaurant	LAG535519	Gen-LAG53-Sanitary Class I	3/17/2017	5134 Nunez St	Lafitte	LA	70067
Walter H Maples Inc - Sureway Supermarket	LAG536145	Gen-LAG53-Sanitary Class I	5/27/1993	3209 Hwy 1	Grand Isle	LA	70358
Warrior Energy Services Corp	LAR05N176	Gen-LAR05-Multi-Sector	6/27/2001	1209 Peters Rd	Harvey	LA	70059
Waste Connections Bayou Inc - IESI Bridge City	LAG480641	Gen-LAG48-Light Commercial	6/29/2011	500 Bridge City Ave	Bridge City	LA	70094
Waste Management of Louisiana LLC - Harvey	LAG480784	Gen-LAG48-Light Commercial	6/15/1999	1220 Peters Rd	Harvey	LA	70058

Wateredge Beach Apartments	LAG535616	Gen-LAG53-Sanitary Class I	6/26/2017	3046 LA 1	Grand Isle	LA	70358
Wechem Inc	LAR05M066	Gen-LAR05-Multi-Sector	8/17/1999	5734 Susitna Dr	Harahan	LA	70123
Wegeaux Wash LLC	LAG751162	Gen-LAG75-Exterior Vehicle Wash	9/10/1999	1000 Central Ave	Westwego	LA	70094
Westbank Truck Stop & Casino	LAG541785	Gen-LAG54-Sanitary Class II	1/29/2010	9800 Westbank Expy	Bridge City	LA	70112
Westside Transit - Veolia Transportation	LAR05N865	Gen-LAR05-Multi-Sector	6/5/2007	118 David Dr	Metairie	LA	70003
Westwego 2 Drainage Pump Station - Jefferson Parish Dept of Drainagew & Pump Stations	LAG533257	Gen-LAG53-Sanitary Class I	10/6/2009	820 S Laroussini St (entrance at	Westwego	LA	70094
Westwego Production Facility	LAG33A272	Gen-LAG33-Coastal	8/20/2003	Hwy 521 btw Klein St & Patterson St	Westwego	LA	70094
Westwego Water Plant	LAG380025	Gen-LAG38-Potable Water	1/11/1999	419 Avenue A	Westwego	LA	70094
Willco Inc	LAG535438	Gen-LAG53-Sanitary Class I	7/15/2016	405 Texaco Ln	Harvey	LA	70058
Wood Materials LLC	LAG490011	Gen-LAG49-Sand and Gravel	8/25/1999	5900 River Rd	Harahan	LA	70123
Wood Resources Corp - Eastbank Sand Pit	LAG490021	Gen-LAG49-Sand and Gravel	8/17/1999	6148 River Rd	Harahan	LA	70183
Wood Resources LLC	LAG490020	Gen-LAG49-Sand and Gravel	8/3/1999	8200 River Rd	Waggaman	LA	70094
Wood Resources LLC - Wood Towing LLC	LAG541541	Gen-LAG54-Sanitary Class II	2/5/2007	5821 River Rd	Avondale	LA	70094
Z Hospitality Services Inc	LAG540612	Gen-LAG54-Sanitary Class II	8/17/1999	Hwy 45	Marrero	LA	70072
Z Realty LLC	LAG535320	Gen-LAG53-Sanitary Class I	4/10/2016	4252 Leo Kerner / Lafitte Pkwy	Marrero	LA	70072

APPENDIX C: ORDINANCES

Below is a description of the ordinances related to stormwater management. These ordinances are available online at the following address:
https://library.municode.com/la/jefferson_parish/codes/code_of_ordinances

Section 2-574	Department of Public Works serves as focal point for actions concerning the citizens drainage advisory board
Section 7-28	Clean-up and disposal of animal excreta in sanitary manner (Pooper Scooper)
Section 8-5-118.23.2	Amendment addressing the use of grease traps
Section 13-6	Immediate reporting to 911 of accidents or incidents involving hazardous material that pose an exposure risk to any sewage, drainage or water line
Section 13-7	Procedures for cleaning up hazardous materials spills
Section 16-4	Solid waste containers to be watertight and leakproof. Household hazardous wasted to be handled and stored in accordance with State requirements.
Section 16-6	Vehicles or containers used for the collection and transportation of toxic or hazardous wastes shall be durable, enclosed and leakproof, and shall be constructed, loaded, moved and unloaded in a safe manner in compliance with the applicable regulations of the State Department of Health. Vehicles or containers used for collection and transportation of garbage shall be covered, leakproof, durable metal and of easily cleanable construction. These shall be cleaned at appropriate intervals to prevent pollution and shall be maintained in good repair.
Section 16-8	No person shall litter any public or private premises
Section 16-9	Prohibits littering and dumping of any debris, trash, trees or garbage into drainage ditches, canals or catch basins. Also prohibits that dumping or blowing of grass clippings into streets or storm drains.
Section 16-10	Prohibits disposal of wastes by burning on any public or private premises
Section 16-56 through Section 16-68	Incinerator regulations that prohibit nuisance emissions. All incinerators or incineration devices must have approval by air control commission prior to installation or construction. Requires incineration facility to post operating procedure in a conspicuous manner (noticeable). Requires incineration facilities to meet the State Sanitary Code. Facilities are subject to inspection.
Section 16-101 through Section 16-108	Regulates transport and disposal of medical waste, including commercial and residential medical waste
Section 17-32 through Section 17-34	Air Pollution Control regulations that prohibit emission of dense smoke, soot, cinders, noxious acids, fumes and gases from any source in any such manner as to be detrimental to the public health.
Section 19-16	Prohibits accumulation, collection or the keeping, depositing on or scattering on any person's premises any of the following: trash, debris, refuse, junk, abandoned equipment, machinery, refrigerators, freezers, air conditioners, cans, containers, abandoned or noxious matter.
Section 20-120	Restrictions on the use of phenoxy-based compounds to prevent runoff and/or drift
Section 25-51 through Section 25-53	Coastal Zone Management Program conserves and restores valuable wetlands that serve to filter runoff; erosion control.
Section 26-35	Requires sewerage disposal, water and fire protection for all living accommodations, campers and trailers and the submittal of proof to the Parish Council.
Section 27-16	Requires inspections of all sewerage and drainage lines installed in the Parish to ensure tightness.

Section 27-71	Makes dumping of trash or garbage of the placing of mail boxes, screens, etc., or placement of objects in drainage system unlawful.
Section 27-72	Requires approval for any obstructions to drainage pipe, drainage structure, open ditch, or canal.
Section 27-107	Allows the authority to prevent the ponding of water and breeding of mosquitoes by property owners.
Section 27-142 through Section 27-151	Sewage Disposal Law – Regulates proper disposal of sewage waste
Section 27-150	Director's duties and powers with controlling prohibited waste
Section 27-157 through Section 27-165	Drainage Disposal Law – Prohibits the discharge of water into the stormwater drainage system
Section 27-159	Prohibits the discharge of wasted into stormwater drainage system and gives basic requirements of the discharge of waste
Section 27-161c	Specific prohibitions and limitations concerning the discharge of wastewater into stormwater
Section 27-162	Permits industrial waste discharges and prohibits illicit discharges
Section 27-163	Monitoring and reporting requirements and reporting of accidental discharges so that corrective action may be taken
Section 27-164	Control of prohibited waste, powers and duties of director
Section 27-165	Enforcement of Drainage Disposal Law
Section 27-176	Prohibits unauthorized tampering of fire hydrants
Section 27-179	Prohibits unauthorized tampering of valves, lines, etc.
Section 27-213	Cross connection program
Section 27-214	Violations and penalties
Section 28-10	Immediate reporting to office of communication services (911) of derailment or release of hazardous materials
Section 29-3	Discharging refuse, oil or other objectionable matter into the ditches or gutters of public streets or roads is prohibited.
Section 29-4	Requires approval from the Department of Public Works for any concrete slabs across open ditches or culverts whose purpose is to drain rainfall.
Section 33-1 through Section 33-6.5	All subdivision proposals shall have sewerage and drainage facilities reviewed by Department of Public Works, Planning Advisory Board.
Section 33-6.2	Low Impact Development practices for contractors seeking exemptions, including the completion of a stormwater management plan and a description of proposed stormwater best management practices
Section 33-7.4	Design standards for stormwater infrastructure for developments including verbiage stating that erosion and sedimentation controls shall be required during and after new construction as needed to prevent increased erosion or increased deposits of material downstream from the development.
Section 34-1	Requires all plumbing and drainage installation for swimming pools to conform with Parish building code.
Section 36-97	Prohibits repair of automobiles and trucks on public streets and sidewalks.
Section 37-18	No person shall use the neutral grounds, parks, sidewalks or publics places to dump grass clippings, tree trimmings or refuse of any nature.
Section 39-8	Erosion Control – limiting wave action on Bayou Barataria

APPENDIX D: 2017 NPDES MS4 PERMIT

JOHN BEL EDWARDS
GOVERNOR

CHUCK CARR BROWN, PH.D.
SECRETARY

State of Louisiana

DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL SERVICES

November 03, 2017

Certified Mail # 7017 0660 0000 3915 6445

File No.: LAS000201
AI No.: 95365
Activity No.: PER20160002

Mr. Michael Lockwood
Director
Jefferson Parish Dept. of Environmental Services
4901 Jefferson Highway, Suite #E
Jefferson, LA 70121

RE: Louisiana Pollutant Discharge Elimination System (LPDES) renewal permit for the Regulated Municipal Separate Storm Sewer Systems (MS4s) within Jefferson Parish Owned or Operated by Jefferson Parish, the Louisiana Department of Transportation and Development (District 02), the City of Gretna, the City of Harahan, the City of Kenner, and the City of Westwego.

Dear Mr. Lockwood:

This Office has received no comments from the general public; however, comments were received from Jefferson Parish and the Louisiana Department of Transportation and Development (District 02) in response to the public notice published in the Department of Environmental Quality Public Notice Mailing List on July 31, 2017 or ***The New Orleans Advocate*** of Orleans Parish on August 2, 2017.

Pursuant to the Clean Water Act (33 U.S.C. 1251 et seq.) and the Louisiana Environmental Quality Act (LA R.S. 30:2001, et seq.), the attached LPDES permit has been issued. Provisions of this permit may be appealed in writing pursuant to R.S. 2024(A) within 30 days of receipt of the permit. A request for hearing must be sent to the following:

Louisiana Department of Environmental Quality
Office of the Secretary
Attention: Hearings Clerk, Legal Division
Post Office Box 4302
Baton Rouge, LA 70821-4302

Upon the effective date, this permit shall replace the previously effective LPDES permit.

Please note the following changes from the draft permit:

- In Part II, introductory paragraph, language has been changed from "Each permittee must contribute to the revision and implementation of a comprehensive SWMP, including pollution measures..." to "Each permittee must develop and implement a comprehensive SWMP for its jurisdiction, including pollution prevention measures...";
- In Part II.A.1-12, language has been changed from "A centralized tracking system accessible to all personnel and available to LDEQ upon request must be utilized to document activities of..." to "Each permittee shall maintain a centralized tracking database system accessible to all personnel and available to LDEQ upon request to document activities of ...";
- In Part II.A.9, language has been changed from "In the centralized tracking system, a unique identifier must be applied to each construction site SWPPP inspection checklist" to "In each co-permittee's centralized tracking system, a unique identifier must be applied to each construction site SWPPP inspection checklist";
- In Part II.A.11, ordering information for *Handbook for Sampling and Sample Preservation of Water and Wastewater*, 1982, U.S. Environmental Protection Agency was updated;
- In Part II.A.13 and Part III.A., Table III.A, LDOTD has been removed from the list of responsible permittees for Minimum Control Measures 8 (Industrial and High Risk Runoff) and 11 (Monitoring Programs); and
- In Part VIII, a definition of *infeasible* was added for clarity.

You must continuously evaluate your storm water management program compliance and the appropriateness of your identified stormwater control measures (SCMs), and make any needed changes/updates to your plan. Although you are not required to submit your SWMP and associated records to the Water Permits Division unless specifically asked to do so, you are required to submit annual reports by May 1 for the preceding calendar year. In order to maintain permit coverage and to avoid possible penalties, you must maintain compliance with all terms and conditions of the permit. See Addendum A of the final permit for access links to all co-permittee SWMPs.

The Environmental Protection Agency (EPA) has developed and made available online educational outreach materials and reference documents related to municipal storm water that local governments can use in their stormwater outreach campaigns. Please take advantage of the useful information contained in the EPA website at https://www.epa.gov/npdes/npdes-stormwater-program and https://cfpub.epa.gov/npstbx/index.html.

Part V of the permit contains monitoring and reporting requirements. In accordance with Part V.C, a systemwide annual report must be submitted to the LDEQ Enforcement Division. Pursuant to LAC 33:IX.2701.L.4.a, monitoring results shall be reported to the Enforcement Division through a department-approved electronic document receiving system (NetDMR). Paper DMRs or an alternative substitute may only be utilized by the permittee if the LDEQ Enforcement Division grants a written authorization to the permittee. See the enclosed NetDMR information sheet.

Pursuant to LAC 33:IX.1309.I, LAC 33:IX.6509.A.1 and LAC 33:I.1701, you must pay any outstanding fees to the Department. Therefore, you are encouraged to verify your facility's fee status by contacting LDEQ's Office of Management and Finance, Financial Services Division at (225) 219-3863 or on the LDEQ website at http://deq.louisiana.gov/page/invoices-accounts-receivables. **Any outstanding fees must be remitted via a check to the Louisiana Department of Environmental Quality within thirty (30) days after the effective date of your permit.** Failure to pay the full amount due in the manner and time prescribed could result in applicable enforcement actions as prescribed in the Environmental Quality Act, including, but not limited to revocation or suspension of the applicable permit, and/or a civil penalty against you.

Should you have any questions concerning any part of the permit, please feel free to contact Alicia Walsh of the Office of Environmental Services at the address on the preceding page, by telephone at (225) 219-3226, or by e-mail at alicia.walsh@la.gov. To ensure that all correspondence regarding this facility is properly filed into the Department's Electronic Document Management System (EDMS), you must reference your Agency Interest number **95365** and the LPDES permit number **LAS000201** on all future correspondence to this Department.

Sincerely,

Elliott B. Vega
Assistant Secretary

aw

Attachments: Public Comments Response Summary, NetDMR information, final permit, general information sheet

c: IO-W

ec: Mr. Scott Guilliams
Ms. Kimberly Corts
Ms. Melissa Reboul
Ms. Melanie Connor
Water Permits Division

PCU Coordinator
Southeast Regional Office
Office of Environmental Compliance

Ms. Mary David
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LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF ENVIRONMENTAL SERVICES

PUBLIC COMMENTS RESPONSE SUMMARY

LOUISIANA POLLUTANT DISCHARGE ELIMINATION SYSTEM (LPDES)
PERMIT NO. LAS000201

FOR THE MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4s)
WITHIN JEFFERSON PARISH OWNED OR OPERATED BY
JEFFERSON PARISH
LA DEPT. OF TRANSPORTATION AND DEVELOPMENT (DISTRICT 02)
CITY OF GRETNA
CITY OF HARAHAN
CITY OF KENNER
CITY OF WESTWEGO

Agency Interest (AI) No. 95365
Activity No. PER20160002

The LDEQ published a public notice in The Advocate of New Orleans regarding the draft MS4 permit for Jefferson Parish, LA Dept. of Transportation and Development (District 02) (LDOTD), the City of Gretna, the City of Harahan, the City of Kenner, and the City of Westwego on August 2, 2017. The public notice was also mailed to individuals listed in the Office of Environmental Services' Public Notice Mailing List on July 31, 2017. The public notice required that comments and requests for public hearings must be received by 4:30 p.m. CST, Wednesday, September 6, 2017. During the comment period, the draft permit, the storm water management plan (SWMP), the Annual Report, and the fact sheet were available for review at LDEQ's Public Records Center (Room 127), 602 North 5th Street, Baton Rouge, Louisiana. These documents were also accessible through LDEQ's Electronic Document Management System (EDMS). No comments were received from the general public. Permittees' comments were received from Jefferson Parish and from LDOTD (District 02) on September 6, 2017.[1] The following is a summary of the permittees' comments and LDEQ's responses.

Public Comment No. 1

Referring to the introductory paragraph of Part II of the draft permit, Jefferson Parish commented that the draft permit language implies a single comprehensive SWMP for Jefferson Parish, and that Jefferson Parish cannot develop or enforce a SWMP for execution within LDOTD's jurisdiction and within the cities of Kenner, Harahan, Westwego, or Gretna due to jurisdictional boundaries. The commenter stated that each co-permittee must develop its own SWMP, individually addressing all components of the permit applicable to its jurisdiction, and should

[1] See EDMS Document No. 10775423, available at: http://edms.deq.louisiana.gov/app/doc/view.aspx?doc=10775423&ob=yes&child=yes (Jefferson Parish and LDOTD).

provide a copy of the SWMP to Jefferson Parish to be kept on file with Jefferson Parish's SWMP. The commenter also provided a suggested revision of the paragraph in question.

LDEQ Response No. 1

The majority of the introductory paragraph in this draft permit was carried forward from the previous Jefferson Parish MS4 permit, and LDEQ appreciates the opportunity to clarify the language. The final permit incorporates Jefferson Parish's suggested revision in the Part II introductory paragraph: *"Each permittee must develop and implement a comprehensive SWMP for implementation within its jurisdiction, including pollution prevention measures, treatment or removal techniques, storm water monitoring, enforcement of ordinances or other regulatory mechanisms identified in the SWMP, and other appropriate means to control the quality of storm water discharged from the MS4. Each permittee must continue to enforce the elements of the SWMP required by this permit."* LDEQ wishes to take this opportunity to recognize Jefferson Parish's outstanding SWMP and 2017 Annual Report; both are thorough and well-organized.

Public Comment No. 2

Jefferson Parish commented on the draft permit's requirement for a *"centralized tracking system accessible to all personnel and available to LDEQ upon request"* applicable to each minimum control measure (MCM). Jefferson Parish expressed concerns that that a centralized tracking system or database is not possible because each co-permittee maintains its own database and generally has different nonintegrated public works operations. In addition, Jefferson Parish does not have authority over the public works operations of each permittee, and therefore does not have the means or authority to implement a centralized tracking system that must be used by the co-permittees. Therefore, Jefferson Parish suggested revising the draft permit requirement to state that each co-permittee shall maintain a centralized tracking system within its jurisdiction, and that each co-permittee shall make its database accessible to all personnel and available to Jefferson Parish or LDEQ upon request.

LDEQ Response No. 2

Based on co-permittee autonomy and jurisdictional authority, LDEQ agrees with Jefferson Parish regarding the importance of clearly delineating responsibilities among co-permittees, and has revised the centralized tracking system requirement language accordingly throughout Part II of the permit.

Public Comment No. 3

LDOTD (District 02) requested that LDOTD be removed as a responsible permittee from the following minimum control measures (MCMs) in Part II.A of the Jefferson Parish MS4 permit:

- No. 1 (Structural Controls and Storm Water Collection System Operation)
- No. 2 (Post-construction Storm Water Management in New Development and Significant Redevelopment)
- No. 4 (Flood Control Projects)
- No. 6 (Illicit Discharges and Improper Disposal)

- No. 8 (Industrial and High Risk Runoff)
- No. 9 (Construction Site Runoff) and
- No. 11 (Monitoring Programs)

LDOTD stated that the agency does not operate MCMs Nos. 1 and 4 and does not have the authority to monitor MCMs Nos. 2, 6, 8, 9 (except for LDOTD projects separately permitted), and 11.

LDEQ Response No. 3

LDEQ wishes to acknowledge and compliment LDOTD on its detailed measurable goals and implementation schedules for the MCMs listed in its SWMP submitted to LDEQ as part of the permit renewal application on August 23, 2016 in compliance with LAC 33:IX.2511.D. LDOTD is considered to be a non-traditional MS4, which is an MS4 that may lack legal authority, often cannot pass ordinances, and may employ a different type of enforcement mechanism (such as withholding contract payment) to enforce the storm water management program. Other examples of non-traditional small MS4s include drainage districts, airports, military bases, prisons, hospitals, and universities. More MS4 information for many of the state departments of transportation can be found at this EPA website: https://www.epa.gov/npdes/stormwater-discharges-transportation-sources. As a co-permittee in this Phase I MS4 permit, according to LAC 33:IX.2511.D.2.h, "Where requirements under LAC 33:IX.2511.D.1.d.v, and 2.b, c.ii, and d are not practicable or are not applicable, the state administrative authority may exclude any operator of a discharge from a municipal separate storm sewer which is designated under LAC 33:IX.2511.A.1.e, B.4.b and 7.b from such requirements. The state administrative authority shall not exclude the operator of a discharge from a municipal separate storm sewer identified in LAC 33:IX.7111.Appendix F, 7113.Appendix G, 7115.Appendix H, or 7117.Appendix I, from any of the permit application requirements under this Paragraph except where authorized under this Section." MCMs 1, 2, 4, 6, 9, and 11 remain storm water management program requirements of this renewal permit. Permittees are not exempt from meeting program requirements, where applicable. Thus LDOTD must comply with permit conditions applicable to its jurisdiction. In order to provide further clarification of LDOTD's responsibilities, LDEQ has outlined the following guidance on each MCM:

MCM No. 1. Structural Controls and Storm Water Collection System Operation:
MCM No. 1 is applicable to LDOTD's activities; in fact, in its SWMP submitted August 23, 2016 and its 2017 Annual Report for Jefferson Parish MS4, LDOTD cited good examples of structural controls in Jefferson Parish over which it has purview, such as storm water detention ponds and a drainage pumping station equipped with a silt sump and trash screens. As defined in the renewal permit, a structural control is: *"a pollution prevention practice that requires the construction of a device, or the use of a device, to capture or prevent pollution in storm water runoff. Structural controls and practices may include but are not limited to: wet ponds, bioretention, infiltration basins, storm water wetlands, silt fences, earthen dikes, drainage swales, vegetative lined ditches, vegetative filter strips, sediment traps, check dams, subsurface drains, storm drain inlet protection, rock outlet protection, reinforced soil retaining systems, gabions, and temporary or permanent sediment basins."*

MCM No. 2. Post-construction Storm Water Management in New Development and Significant Redevelopment:

MCM No. 2 is applicable to LDOTD's activities. LDOTD oversees construction projects as described in its SWMP (see the discussion for MCM No. 9). This MCM refers to storm water runoff control after construction is complete in areas undergoing new development or redevelopment (see EPA's fact sheet for this MCM: https://www3.epa.gov/npdes/pubs/fact2-7.pdf). EPA considers a "redevelopment" project one that alters the footprint of an existing site or building in such a way that there is a disturbance of equal to or greater than 1 acre of land.

Substantial impacts of post-construction runoff generally fall into the categories of increased type and quantity of pollutants (sediment, chemicals, oil and grease, heavy metals, etc.) in the runoff or increased quantities of water flowing over/from the site into the receiving waterbody during storms. These impacts are driven by construction site pollutants, soil disturbance, and increased impervious surfaces (parking lots, driveways, rooftops) as a result of the new development or redevelopment.

LDOTD is already including many standard best management practices/storm water control measures applicable to this MCM in its guidance documents and contract requirements, for example: vegetative buffers, minimal disturbance of soils and vegetation, source control measures, spill prevention, water filtration practices such as grassed swales, water infiltration practices such as infiltration basins, and water storage practices such as wet ponds and extended-detention outlet structures.

MCM No. 4. Flood Control Projects:

MCM No. 4 is applicable to LDOTD's activities. As stated on the LDOTD web page http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Public_Works/Flood_Control/Pages/default.aspx, LDOTD's Statewide Flood Control Program *"is designed to help solve flood problems through an active innovative approach. This Program uses state funds allocated each year by the Legislature to assist in the construction of flood control infrastructure. Eligible projects for consideration must reduce existing flood damages. Potential projects include measures to reduce or eliminate the incidence of flooding or damages in specific area[s]; for example, channel modifications; levee, canal, and spillway construction; stormwater detention; flood proofing of structure; regulation of floodplains; relocation assistance; or other structural or non-structural measures."* LDOTD states in its 2017 Annual Report that it is operating and maintaining a drainage pumping station in Jefferson Parish at the intersection of U.S. 61 and North Causeway Boulevard. DOTD also issued a project permit for a Jefferson Parish Public Works project (LA 3152–LA 3139 Interchange Detention Ponds), which excavated 8 detention ponds plus earthen swales and ditches to connect the ponds. This network of ponds was designed to collect and store up to 19 million gallons of storm water runoff and relieve chronic flooding in the Elmwood Business and Industrial Park.

MCM No. 6. Illicit Discharges and Improper Disposal:

MCM No. 6 is applicable to LDOTD's activities. LDOTD listed tasks, goals, and implementation schedules for this MCM in its SWMP. In the 2017 Annual Report, LDOTD describes its program to reduce floatables and details the volume of debris and litter removed

from roadways under MCM No. 6 for the reporting year. LDEQ recommends moving the task of Litter Collection in the SWMP from MCM No. 3 (Roadways) to MCM No. 6. The U.S. 61–N. Causeway Boulevard underpass drainage pumping station described in MCM No. 4 also collects floatables using trash screens. LDOTD cleans the screens after each major rain event and could add the volume of material collected to its measurable goals reporting for MCM No. 6.

MCM No. 8. Industrial and High Risk Runoff:
LDEQ agrees with LDOTD that MCM No. 8 is not applicable to the activities and enforcement authority of LDOTD and will remove this requirement from the Jefferson Parish MS4 permit.

MCM No. 9. Construction Site Runoff:
MCM No. 9 is applicable to LDOTD's activities; LDOTD's SWMP contains a well-laid-out plan to manage construction site runoff, including measurable goals with implementation schedules.

LDOTD's website provides access to resources to help contractors understand pollution prevention requirements. Referenced in LDOTD's 2017 Annual Report for the Jefferson Parish MS4, the 2016 edition of *Louisiana Standard Specifications for Road and Bridges* used for oversight of construction projects contains language in Section 107.14 addressing expectations and enforceability: *"The contractor certifies under penalty of law that he understands and will abide by the terms and conditions of the Storm Water Pollution Prevention Plan (SWPPP) and the National [Pollutant] Discharge Elimination System (NPDES) General Permit that require the discharges from construction sites be managed to prevent pollutants from entering waters of the United States in accordance with the Environmental Protection Agency's (EPA) regulations for storm water discharges with respect to 33 U.S.C. § 1342 (Sections 402 (p) and 405 of Public Law 100-4)."* Erosion control is discussed in Section 204 of the same publication, project-specific required erosion control features are required on contract plans, and standard plan EC-01 (Erosion Control Details) is made a part of project plans.

The *LADOTD Construction Administration Manual* (July 2017) discusses LPDES permitting, and Section 3.9 also discusses erosion control inspection, repair, and maintenance; LDOTD states in its 2017 Annual Report that payment is provided only when required erosion control items are complete and LDOTD's construction inspectors and Project Engineer have verified correct materials and installation.

MCM No. 11. Monitoring Programs:
LDEQ agrees with LDOTD that MCM No. 11 is not applicable to the activities of LDOTD and will remove this requirement from the Jefferson Parish MS4 permit.

General Information Sheet

AI ID: 95365 - Jefferson Parish - MS4

Alternate Identifiers	Name	User Group	Dates
LAS000201	LPDES #	LPDES Permit #	01-17-2002

Physical Location: Separate Storm Sewer System
Jefferson, LA

Mailing Address: 1221 Elmwood Park Blvd Ste 1006
Jefferson, LA 70123

Location of Front Gate: -90.191389 longitude, 29.965833 latitude

Related People:	Mailing Address	Work Phone	Email	Relationship
Marnie Winter	4901 Jefferson Hwy Ste E Jefferson, LA 70121	5047366443		Water Permit Contact For

Related Organizations	Mailing Address	Work Phone	Relationship
Jefferson Parish Dept of Environmental Affairs	4901 Jefferson Hwy Ste E Jefferson, LA 70121	9857366440	Owns
Jefferson Parish Dept of Environmental Affairs	4901 Jefferson Hwy Ste E Jefferson, LA 70121	9857366440	Water Billing Party for

Codes: 9111, Executive offices

Note: This report entitled "General Information" contains a summary of facility-level information contained in LDEQ's TEMPO database for this facility and is not considered a part of the permit. Please review the information contained in this document for accuracy and completeness. If any changes are required, or if you have questions regarding this document, please email the Permit Support Services Division at facupdate@la.gov.

NetDMR and Electronic DMR Reporting

Useful Information

- **EPA Electronic Reporting Rule**
  - https://www.epa.gov/compliance/npdes-ereporting
  - Phase I- Requires electronic submittal of DMRs as of December 21, 2016
  - Phase II- Requires electronic submittal of NOIs and Program Reports as of December 21, 2020
  - Electronic DMR Reporting requirement adopted by LDEQ Water Regulations May 20, 2016

- **LDEQ Public Website**
  - http://deq.louisiana.gov/
  - 225-219-5337 or 866-896-5337 (customer service)

- **LDEQ NetDMR Information**
  - http://deq.louisiana.gov/page/netdmr
  - 225-219-3752 or 225-219-3767

- **LDEQ NetDMR Training** (training materials and schedule)
  - http://deq.louisiana.gov/page/netdmr-training

- **NetDMR Homepage**
  - https://netdmr.epa.gov

- **Steps to Submit DMRs via NetDMR**
  - Register in CDX
  - Request Access to Permit in NetDMR
  - Submit Subscriber Agreement to LDEQ (electronically or via paper)
  - Receive approval by LDEQ
  - Enter DMR data and add any attachments
  - Sign and Submit On-line
  - Download Submittal from NetDMR or EDMS

- **No Data Indicator (NODI) Codes**
  - NODI codes are used to indicate why no DMR value was submitted for a specific data field, parameter, or whole DMR
  - List of Common NODI Codes
    - C = no discharge
    - 9 = conditional monitoring/ not required this period
    - E = analysis not conducted (failure to sample)
    - B = below detection limit
    - D = lost sample
    - G = equipment failure
    - H = invalid test

- **NetDMR Attachments (cover letters, noncompliance reports, etc.)**
  - Click the "Add Attachment" button on the DMR screen. Click "Browse..." and select the document you wish to attach to the DMR
  - LDEQ only accepts PDF files as attachments

- **EDMS** (search documents related to a facility)
  - http://deq.louisiana.gov/page/edms

NetDMR Form
General Instructions

1. Form has been partially completed by the Office(s) specified in permit, verify the following information is correct on the form:

   - *Permittee Name/ Mailing Address* and *Facility Name/ Location*
   - *Permitted Feature/ Discharge*
   - *Monitoring Period*
   - *Parameter/ Permit Requirement/ Frequency of Analysis/ Sample Type*

2. Optional- Enter *"First Name/Last Name"*, *"Title"* and *"Telephone Number"* of Principal Executive Officer

3. Enter *"Sample Measurement"* (Smpl.) data for each parameter under *"Quantity"* and *"Quality"* in units specified in permit.

4. Under *"No Ex"* enter number of sample measurements during monitoring period that exceed maximum (and/or minimum or 7-day average as appropriate) permit requirement for each parameter. If none, enter *"0"*.

5. Change *"Frequency of Analysis"* for *Sample Measurement* to actual frequency of analysis used during monitoring period if different than prepopulated value (e.g., Enter *"99/99,"* for continuous monitoring, *"01/07"* for one per week, *"01/30"* for one per month, *"01/90"* for one per quarter, etc.)

6. Change *"Sample Type"* for *Sample Measurement* to actual sample type used during monitoring period if different than prepopulated value (e.g., Enter *"GR"* for grab samples, *"24"* for 24-hour composite, *"CN"* for continuous monitoring, etc.)

7. If "no discharge" occurs during monitoring period, choose appropriate no data indicator (NODI) code to correspond with reason no data is available for the entire DMR, the parameter(s), or the specific value(s)

8. Address *Edit Check Errors*, if applicable:
   - Hard Errors must be resolved by editing the DMR
   - Soft Errors can be resolved by editing the DMR or by acknowledging the errors
   - Errors must be addressed before DMRs can be Signed & Submitted

9. Where violations of permit requirements are reported, attach non-compliance report with a brief explanation to describe cause and corrective actions taken, and reference each violation by date.

10. Comments- this field provides space to enter additional comments related to your DMR submission, if any.

11. Attachments- *Add Attachment* allows one or more PDF files to be attached to the DMR submission (such as cover letters, non-compliance reports, other permit required reports, etc.)

12. DMRs with a *NetDMR Validated* status may be signed & submitted. A Copy of Record (COR) will be maintained with in NETDMR.

13. More detailed Instructions for use of NetDMR may be obtained from the Office(s) specified in permit.

PERMIT NUMBER: LAS000201
AGENCY INTEREST NO.: 95365
ACTIVITY NO.: PER20160002

DEQ
LOUISIANA

OFFICE OF ENVIRONMENTAL SERVICES

Water Discharge Permit

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, and in reliance on statements and representations heretofore made in the application, a Louisiana Pollutant Discharge Elimination System permit is issued authorizing

Jefferson Parish (AI 95365)
Louisiana Department of Transportation and Development (District 02) (AI 124808)
City of Gretna (AI 127007)
City of Harahan (LSU) (AI 127008)
City of Kenner (AI 127009)
City of Westwego (AI 127010)

Type Facility: Municipal Separate Storm Sewer System (MS4) within Jefferson Parish

Receiving Waters: Subsegments 020501, 020601, 020701, 020801, 020802, 020902, 020905, 021101, 021102, 041001, 041302

to discharge in accordance with effluent limitations and monitoring requirements, narrative requirements, other conditions, and standard conditions attached hereto.

This permit shall become effective on December 1, 2017

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

Issued on November 3, 2017

Elliott B. Vega
Assistant Secretary

MUNICIPAL SEPARATE STORM SEWER SYSTEMS
WITHIN JEFFERSON PARISH
OWNED OR OPERATED BY

JEFFERSON PARISH
LOUISIANA DEPT. OF TRANSPORTATION AND DEVELOPMENT (DISTRICT 02)
CITY OF GRETNA
CITY OF HARAHAN
CITY OF KENNER
CITY OF WESTWEGO

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PART I. DISCHARGES AUTHORIZED UNDER THIS PERMIT

A. **Permit Area.** This permit covers all areas, except agricultural lands, located within the parish boundary of Jefferson Parish that are served by regulated municipal separate storm sewer systems owned or operated by the permittees. The areas include the City of Gretna, the City of Harahan, the City of Kenner, the City of Westwego and the unincorporated areas of Jefferson Parish, including Avondale, Bridge City, Elmwood, Estelle, Harvey, Jefferson, Marrero, Metairie, River Ridge, Terrytown, Timberlane, Waggaman, and Woodmere.

B. **Authorized Discharges**

1. Except as specified in Part I.B.2, this permit authorizes all existing or new storm water point source discharges to waters of the state from those portions of the Municipal Separate Storm Sewer System (MS4) owned or operated by the permittees. Discharges must not cause or have the reasonable potential to cause or contribute to a violation of in-stream water quality criteria or adversely impact the designated uses of a receiving stream. 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 the permittee of such violation(s) and the permittee must take all necessary actions to ensure that future discharges do not cause or contribute to the violation of a water quality standard and will document these actions in the Storm Water Management Program (SWMP). If violations remain or recur, then coverage under this permit may be terminated by the permitting authority. Compliance with this requirement does not preclude any enforcement activity as provided by the Clean Water Act and the Louisiana Environmental Quality Act for the underlying violation.

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

   a. *Non-storm Water and Industrial Storm Water: except those authorized by a separate Louisiana Pollutant Discharge Elimination System (LPDES) permit*, discharges of non-storm water; any storm water discharge associated with industrial activity as defined in Louisiana Administrative Code (LAC 33:IX.2511.B.14); or other storm water discharges required to obtain an LPDES permit. This permit does not transfer liability for the act of discharging without (or in violation of) an LPDES permit from the operator of the discharge to the permittee(s) (see also Part II.A.6).

   b. *Spills:* 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) must take, or ensure that the responsible party for the spill takes, all reasonable steps to minimize or

prevent any adverse effects on human health or the environment (see also Part II.A.7 and Part VI.E.) 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 Code of Federal Regulations (CFR) Parts 117 and 302).

C. Permittee Responsibilities

1. Each permittee is responsible for:

   a. Compliance with permit conditions relating to discharges from portions of the MS4 where the permittee is the operator;

   b. Continued SWMP implementation of measurable goals for the Storm Water Control Measures (SCMs) used to satisfy the requirements identified in Part II.A.1-12) on portions of the MS4 where the permittee is the operator;

   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 continued plan of action to assume responsibility for implementation of storm water management and monitoring programs on their portions of the MS4, should interjurisdictional agreements allocating responsibility between permittees be dissolved or in default.

2. Permittees are jointly responsible for permit compliance on portions of the MS4 where operational or SWMP implementation authority over portions of the MS4 is shared or has been transferred from one permittee to another in accordance with legally binding agreements.

PART II. STORM WATER POLLUTION PREVENTION & MANAGEMENT PROGRAM(S)

Each permittee must develop and implement a comprehensive SWMP for its jurisdiction, including pollution prevention measures, treatment or removal techniques, storm water monitoring, enforcement of ordinances or other regulatory mechanisms identified in the SWMP, and other appropriate means to control the quality of storm water discharged from the MS4. Each permittee must continue to enforce the elements of the SWMP required by this permit. The SWMP must be implemented in accordance with Section 402(p)(3)(B) of the Act and the Storm Water Regulations (LAC 33:IX.2511).

Controls and activities in the SWMP must identify areas of permittee responsibility on a jurisdiction, applicability, or specific area basis. The SWMP must continue to ensure controls to effectively prohibit the discharge of non-storm water into municipal separate storm sewers and reduce the discharge of pollutants from the MS4 to protect water quality to the Maximum Extent Practicable (MEP).

Compliance with federal, state and local storm water programs revolves around the use of *storm water control measures* (SCMs, formerly called BMPs) to manage storm water. 40 CFR 122.44(k)(2) establishes legal authority to include the use of SCMs in permits to control or abate the discharge of pollutants in storm water discharges. 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 SCMs to manage storm water. Where appropriate, the permittees are strongly encouraged to utilize principles and storm water control measures contained in the following publications to minimize the discharge of pollutants within watersheds: https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater#edu and https://louisianastormwater.org/. The permittees must document in their SWMP which smart growth practices are utilized and describe how those practices minimize the discharge of pollutants of concern to any water body with an established Total Maximum Daily Load (TMDL).

The SWMP must cover the term of the permit and must 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 SWMP must be made in accordance with Parts II.G, and III. The SWMP with all updates made in accordance with Part II.G is hereby incorporated by reference.

Implementation of the SWMP may be achieved through participation with other permittees, public agencies, public interest groups, private citizens, or private entities in cooperative efforts to satisfy the requirements of Permit Part II in lieu of creating duplicate program elements for each individual permittee. The SWMP, taken as a whole, must achieve the "effective prohibition on the discharge of non-storm water" and "MEP" standards from Section 402(p)(3)(B) of the Act.

On February 10, 2017, the Environmental Protection Agency (EPA) approved the Louisiana

2016 Integrated Report. This report includes the 303(d) impaired water bodies (IRC 5) that require the development of TMDLs and water bodies for which TMDLs have been developed. The final 2016 Integrated Report is located at: http://deq.louisiana.gov/page/water-quality-integrated-report-305b303d. That list is periodically updated. The permittees should review the list at least once every even-numbered year to keep informed of changes to the 303(d) list and the establishment of TMDLs for specific pollutants. The 303(d) list is updated every even-numbered year.

All copermittees must document in the SWMP how the SCMs and other controls implemented in the SWMP will control the discharge of any pollutant(s) of concern for discharges into impaired waters.

If a TMDL has not yet been approved for a 303(d) listed (Category 5 in the Integrated Report) subsegment that receives storm water runoff from the regulated MS4s within Jefferson Parish, then the permittees must describe how the SCMs and other control(s) selected for its SWMP the discharge of those pollutants which have been identified as causing the impairment. (See Part II.A.11.d and Part II.B.)

A. Storm Water Management Program (SWMP) Requirements and Minimum Control Measures

1. *Structural Controls and Storm Water Collection System Operation:* The MS4 operator(s) must ensure any storm water structural controls must continue operation and maintenance in a manner to reduce the discharge of pollutants to the MEP. Each permittee shall maintain a centralized tracking database system accessible to all personnel and available to LDEQ upon request to document activities of the Structural Controls and Storm Water Collection System Operation program.

2. *Post-construction Storm Water Management in New Development and Significant Redevelopment:* The Post-construction Storm Water Management in New Development and Significant Redevelopment program must be operated and maintained to ensure the discharge of pollutants are reduced to the Maximum Extent Practicable after construction is complete. Each permittee shall maintain a centralized tracking database system accessible to all personnel and available to LDEQ upon request to document activities of this program.

    a. The permittee(s) must:

        i. Continue to implement and enforce the post-construction program to ensure that storm water runoff is addressed from new development and redevelopment projects that disturb greater than or equal to 1 acre, including projects less than 1 acre that are part of a larger common plan of development or sale, that discharge into the MS4. The program must

ensure that controls are in place to prevent or minimize water quality impacts;

ii. Continue implementation strategies ensuring that a combination of structural and/or non-structural SCMs appropriate for the community are included;

iii. Continue to use an ordinance or other regulatory mechanism to ensure that post-construction runoff is addressed from new development and redevelopment projects to the extent allowable under state or local law; and

iv. Continue to ensure adequate long-term operation and maintenance of SCMs.

b. The permittee(s) must identify each individual SCM designed to minimize the discharge of pollutants into the MS4, and its corresponding measurable goal, that continues to be used in the Jefferson Parish post-construction storm water management program. The permittee(s) must include, at a minimum, the following information:

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

ii. A description of how the program is specifically tailored to the local community, how it minimizes water quality impacts, and how it is designed to attempt to maintain pre-development runoff conditions.

iii. A description of any non-structural SCMs in the program, including as appropriate:

(a) 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;

(b) Policies or ordinances that encourage infill development in higher density urban areas and areas with existing storm sewer infrastructure;

(c) Education programs for developers and the public about project designs that minimize water quality impacts; and

(d) Other measures such as 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.

iv. Any structural SCMs in the program, including, as appropriate:

(a) Filtration practices such as grassed swales, bioretention cells, sand filters and filter strips;

(b) Infiltration practices such as infiltration basins and infiltration trenches;

(c) Storage practices such as wet ponds and extended-detention outlet structures.

v. Describe the mechanisms (ordinance or other regulatory mechanism) implemented to address post-construction runoff from new development and why that mechanism was chosen. Include a copy of the relevant sections of the ordinance or regulatory mechanism with the program.

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

vii. Describe who is responsible for overall management and implementation of the post-construction storm water management program and, if different, who is responsible for each of the SCMs identified for that control measure.

viii. Describe how the success of the Post-construction Storm Water Management in Development and Redevelopment program is evaluated, including how the measurable goals for each of the SCMs were selected.

3. *Roadways:* Public streets, roads, and highways must continue to be operated and maintained to ensure that the discharge of pollutants, including those pollutants related to deicing or sanding activities, is minimized. The Roadways program must continue to be operated in a manner to ensure that the discharge of pollutants is reduced to the Maximum Extent Practicable. Each permittee shall maintain a centralized tracking database system accessible to all personnel and available to LDEQ upon request to document activities of this program.

4. *Flood Control Projects:* Impacts on receiving water quality must continue to be assessed for all flood management projects. The feasibility of retrofitting existing structural flood control devices to provide additional pollutant removal from storm water must be evaluated. The Flood Control Projects program must continue to be operated in a manner to reduce the discharge of pollutants to the Maximum Extent Practicable. Each permittee shall maintain a centralized tracking database system accessible to all personnel and available to LDEQ upon request to document activities of this program.

5. *Pesticide, Herbicide, and Fertilizer Application:* Each permittee must continue implementing controls to ensure that the discharge of pollutants related to the storage and application of pesticides, herbicides, and fertilizers applied by the permittee's employees or contractors to public right of ways, parks, and other municipal property is reduced. Permittee(s) with jurisdiction over lands not directly owned by that entity (e.g., incorporated city) must continue implementing

programs to reduce the discharge of pollutants related to commercial application and distribution of pesticides, herbicides, and fertilizers. The use, storage, disposal, and transportation of pesticides, herbicides, fertilizers and their containers must comply with the regulations of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), 40 CFR Parts 150-189. The Pesticide, Herbicide, and Fertilizer Application program must be operated in a manner to reduce the discharge of pollutants to the Maximum Extent Practicable. Each permittee shall maintain a centralized tracking database system accessible to all personnel and available to LDEQ upon request to document activities of this program, including (1) amounts of pesticides, herbicides, and fertilizers collected from the Household Hazardous Materials Collection Event and (2) quantities of all pesticides, herbicides, and fertilizers applied by Jefferson Parish employees or contractors to public rights-of-way, parks, and other parish property.

6. *Illicit Discharges and Improper Disposal*: Non-storm water discharges to the MS4 must be effectively prohibited through enforcement of an ordinance or other regulatory mechanism. Permittees must describe how appropriate enforcement procedures and actions ensure that the illicit discharge ordinance (or other regulatory mechanism) is implemented. The Illicit Discharges and Improper Disposal program must continue to be operated to ensure that the discharge of pollutants is reduced to the Maximum Extent Practicable. Each permittee shall maintain a centralized tracking database system accessible to all personnel and available to LDEQ upon request to document activities of this program, including inspections, investigations, and resolutions. Inspections resulting from complaints received through the Department of Environmental Affairs or 911 must also have response times tracked. For the purpose of this permit, the following discharges need not be addressed as illicit discharges by the permittee(s) nor prohibited from entering the MS4: discharges regulated by a separate LPDES permit; discharges for which an LPDES permit application has been submitted; and non-storm water discharges identified by the permittee as specified in item (a) below.

   a. Permittee(s) must identify in the SWMP any categories of non-storm water that are not prohibited from being discharged into the MS4 in accordance with conditions described in items i. and ii. below.

      i. Categories of non-storm water discharges that the permittee(s) may exempt from the prohibition against non-storm water entering the Municipal Separate Storm Sewer System include those either:
         (a) Listed in LAC 33:IX.2511.D.2.d.ii.(a) (e.g., includes, but is not limited to, de-chlorinated swimming pool discharges, uncontaminated pumped groundwater, air conditioning condensation, water from crawl spaces);
         (b) Other similar occasional incidental non-storm water discharges (e.g., noncommercial or charity car washes).

ii. Categories of exempted non-storm water discharges that are authorized to enter the MS4 must not be reasonably expected [based on information available to the permittee(s)] to be significant sources of pollutants to the waters of the state, because of either:
(a) The nature of the discharges; or
(b) Conditions placed on the discharges by the permittee(s).

The SWMP must describe any local controls or conditions placed on discharges exempted from the prohibition against non-storm water. Permittee(s) must continue prohibiting any individual non-storm water discharge otherwise exempted under this paragraph from the prohibition against non-storm water that is determined to be contributing significant amounts of pollutants to the MS4.

b. Each permittee must describe in writing how it detects and addresses illicit discharges to the MS4. The written plan must describe, 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) or ambient sampling to locate impacted reaches;
ii. Procedures for investigating and tracing the source of an illicit discharge based on field screening results or other information, including the specific techniques used to detect the location of the source;
iii. Procedures for removing the source of the illicit discharge;
iv. Procedures for program evaluation and assessment;
v. Procedures for informing public employees, businesses, and the general public of hazards and complaint procedures associated with illegal discharges and improper disposal of waste, such as accessing the Jefferson Parish Department of Environmental Affairs. Include in the description how this plan will coordinate with the public education minimum measure and the pollution prevention/good housekeeping minimum control measures;
vi. Person(s) responsible for overall management and implementation of the storm water illicit discharge detection and elimination program and, if different, who is responsible for each of the SCMs identified for this program; and
vii. How the success of this minimum measure is evaluated, including how the measurable goals for each of the SCMs were selected.

c. The permittees must continue to ensure the implementation of a program to reduce the discharge of floatables (e.g., litter and other human-generated solid refuse). The floatables control program must include source controls

and, where necessary, structural controls.

d. The discharge or disposal of used motor vehicle fluids, household hazardous wastes, and the intentional disposal of collected quantities of grass clippings, leaf litter, and animal wastes into separate storm sewers must be prohibited. The permittees must continue to ensure the implementation of programs to collect used motor vehicle fluids (at a minimum, oil and antifreeze) for recycle, reuse, or proper disposal and to collect household hazardous waste materials (including paint, solvents, pesticides, herbicides, and other hazardous materials) for recycle, reuse, or proper disposal. Such programs must be readily available to all private residents and must be publicized and promoted on a regular basis.

e. The permittee(s) must continue to implement a program to locate and eliminate illicit discharges and improper disposal into the MS4. Include dry weather screening activities to locate portions of the MS4 with suspected illicit discharges and improper disposal (described in Part II.A.11.a). Follow-up activities to eliminate illicit discharges and improper disposal may be prioritized on the basis of magnitude and nature of the suspected discharge, sensitivity of the receiving water, and/or other relevant factors. Continue to establish priorities and schedules for screening the entire MS4 at least once per 5 years (see Part II.A.11.a). Facility inspections may be carried out in conjunction with other municipal programs (e.g., pretreatment inspections of industrial users, health inspections, fire inspections, etc.), but must include random physical inspections for facilities not normally visited by the municipality.

f. Each permittee must continue to require the elimination of illicit discharges and improper disposal practices as expeditiously as reasonably possible (see Jefferson Parish MS4 Discharge Permit Renewal Application and SWMP Section 6). Where elimination of an illicit discharge within thirty (30) days is not possible, the permittee must require an expeditious schedule for removal of the discharge. In the interim, the permittee must require the operator of the illicit discharge to take all reasonable and prudent measures to minimize the discharge of pollutants to the MS4. All permittees must describe procedures for determining which sanctions apply to which infractions (such as enforcement escalation process). Possible sanctions include nonmonetary penalties such as stop work orders and/or permit denials for noncompliance, as well as monetary penalties such as fines and bonding requirements to the extent allowable by state or local law.

g. The permittees must continue to maintain, and update as necessary, a list of dischargers to municipal separate storm sewers that have been issued an

LPDES permit. The list must include the name, location and LPDES permit number of the discharger.

h. The permittees must continue to provide a map of the complete storm sewer system, updated as necessary and publicly accessible, showing the location of all major municipal separate storm sewer outfalls and the names and location of all waters of the state that receive discharges from these outfalls.

i. Each permittee must continue implementation of the following programs to address the discharge of pollutants from sanitary sewers into the MS4:

i. An ongoing program for prevention of unpermitted chronic dry and wet weather overflows from the sanitary sewer system (e.g., overflows caused by deteriorated or undersize lines, excessive inflow and infiltration, improper maintenance, etc.); and
ii. An ongoing program for responding to and eliminating, as soon as practicable, unforeseen episodic overflows from the sanitary sewer system (e.g., overflows caused by power outage, line breakage or blockage, vandalism, etc.); and
iii. An ongoing program to limit seepage from sanitary sewers into the MS4 (e.g., seepage due to minor cracks in lines, line joints separating due to land subsidence, etc.).

7. *Spill Prevention and Response:* Each permittee must continue to implement, updating as necessary, the Illicit Discharges and Improper Disposal program to ensure that spills that may discharge into the MS4 are prevented, responded to, and contained. Where discharge of material resulting from a spill is necessary to prevent loss of life, personal injury, or severe property damage, the permittees must take, or ensure that the responsible party for the spill takes all reasonable steps to minimize or prevent any adverse effects on human health or the environment. The spill response program may include a combination of spill response actions by the permittee(s) (and/or another public or private entity), and legal requirements for private entities within the permittee's municipal jurisdiction. Each permittee shall maintain a centralized tracking database system accessible to all personnel and available to LDEQ upon request to document Spill Prevention and Response program activities.

8. *Industrial & High Risk Runoff:* The permittees must continue to implement a program to ensure that pollutants in storm water discharges to the MS4 from municipal landfills; other treatment, storage, or disposal facilities for municipal waste (e.g., transfer stations, incinerators, etc.); hazardous waste treatment, storage, disposal and recovery facilities; facilities that are subject to EPCRA Title III, Section 313; and any other industrial or commercial discharge that the

permittee(s) determines contributes a substantial pollutant loading to the MS4 are identified and controlled. Each permittee shall maintain a centralized tracking database system accessible to all personnel and available to LDEQ upon request to document Industrial and High Risk Runoff program activities, including records review and DMR (discharge monitoring report) assessments of 25% of defined high risk facilities in the MS4 on an annual basis, necessary follow-up inspections and enforcement activities, and complaints received that deal with discharges from these facilities. Complaints must be tracked along with response times for inspection and resolution of complaint. The program must include:

a. Priorities and procedures for inspections and continued establishment and implementation of control measures for such discharges;

b. A monitoring program (Part II.A.11.c: Industrial and High Risk Runoff Monitoring Program); and

c. A list, maintained and updated annually and accessible to LDEQ, of industrial and high risk storm water sources discharging to the MS4.

9. *Construction Site Runoff:*

a. Each permittee must continue to implement and enforce a program, updating as necessary, to ensure that pollutants are reduced in any storm water runoff to its MS4 from construction activities that result in a land disturbance of greater than or equal to 1 acre. Reduction of storm water discharges from construction activity disturbing less than 1 acre must be included in the permittee's program if that construction activity is part of a larger common plan of development or sale that would disturb 1 acre or more. Each permittee shall document activities of the Construction Site Runoff program, including all building or construction permit reviews, construction site inspections and enforcement actions, construction community education and training, pre-construction meetings, and Construction Site Runoff program staff training, in a centralized tracking database system accessible to all personnel and available to LDEQ upon request. The extent to which the program will rely upon the LPDES Phase II Construction regulation should be specified. This program must continue implementing, at a minimum:

i. Mechanism (ordinance or other regulatory mechanism) used to require erosion and sediment controls at construction sites and why that mechanism was chosen. The permittee(s) are required to include a copy of the relevant section(s) of the ordinance or regulatory mechanism with their SWMP description.
ii. Requirements for ensuring that construction site operators use and

maintain appropriate erosion and sediment control SCMs to reduce pollutants discharged to the MS4 during the time construction is underway. In addition, the permittees must provide methods, including sanctions and enforcement mechanisms, used to ensure that construction site operators are compliant with the erosion and sediment control mechanisms. The permittees must describe procedures for determining which sanctions apply to which infractions (such as enforcement escalation process). Possible sanctions include nonmonetary penalties such as stop work orders and/or permit denials for noncompliance, as well as monetary penalties such as fines and bonding requirements to the extent allowable by state or local law.

iii. Requirements for ensuring that construction site operators implement and maintain appropriate erosion and sediment control SCMs and control waste at construction sites that may cause adverse impacts to water quality. Examples of such waste might include discarded building materials, concrete mixer truck washout, chemicals, litter, and sanitary waste (see EPA guidance at https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater#edu).

iv. Procedures for site plan review, including the review of pre-construction site plans, which incorporate consideration of potential water quality impacts. Procedures and rationale used to identify certain sites for site plan review must be described if the site plan review does not include the review of all pre-construction site plans.

v. Procedures for ensuring receipt and consideration of information submitted by the public. This requirement must be coordinated with the public education program.

vi. Notification of appropriate building permit applicants of their potential responsibilities under the LPDES permitting program for construction site runoff. In addition, procedures must be provided for ensuring physical site inspection and enforcement of control measures. Steps used to identify priority sites for inspection and enforcement based on the nature of the construction activity, topography, and characteristics of soils and receiving water quality are to be included. Each construction project resulting in a land disturbance of greater than or equal to 1 acre or disturbing less than 1 acre if part of a larger common plan of development or sale that would disturb 1 acre or more is to be physically inspected a least once after project initiation. Each permittee must develop a prioritized list of construction sites for additional physical inspections based on size, scope, and previous construction site operator violations. In each co-permittee's centralized tracking database system, a unique identifier must be applied to each construction site Storm Water Pollution Prevention Plan (SWPPP) inspection checklist.

vii. Documentation of who is responsible for overall management and implementation of the construction site storm water control program and, if different, who is responsible for each of the SCMs identified for this program.
viii. Appropriate education and training measures for construction site operators.

b. Measurable Goals: The permittee(s) must identify each individual SCM and its corresponding measurable goal used in their construction site storm water runoff control program that is designed to minimize the discharge of pollutants into their MS4. The permittee(s) must include, at a minimum, the following information:

i. Continue to identify and quantify permittee compliance with procedures to ensure that mechanisms (ordinances or other regulatory mechanisms) used to require that erosion and sediment controls at construction sites are utilized and updated as necessary.
ii. Continue to identify and quantify permittee compliance with procedures that document the methods, including sanctions and enforcement mechanisms, used to ensure that construction site operators are compliant with the erosion and sediment control mechanisms.
iii. Continue to identify and quantify permittee compliance with procedures for implementing and maintaining requirements for construction site operators to ensure appropriate erosion and sediment control SCMs and to control waste at construction sites that may cause adverse impacts to water quality.
iv. Continue to identify and quantify permittee compliance with procedures for ensuring site plan review, including the review of pre-construction site plans, which incorporate consideration of potential water quality impacts.
v. Continue to identify and quantify permittee compliance with procedures ensuring receipt and consideration of information submitted by the public.
vi. Continue to identify and quantify permittee compliance with procedures for ensuring site inspection and enforcement of control measures. In addition, all permittees must provide documentation of the following:
(a) At least once after project initiation, ensure physical site inspection of any construction projects resulting in a land disturbance of greater than or equal to 1 acre or disturbing less than 1 acre if part of a larger common plan of development or sale that would disturb 1 acre or more.
(b) A prioritized list of construction sites for additional physical

inspections based on size, scope, and previous construction site operator violations. **In each co-permittee's centralized tracking database system, a unique identifier must be applied to each construction site SWPPP inspection checklist.**

vii. Continue to identify who is responsible for overall management and implementation of the construction site storm water control program (such as an organization chart) and who is responsible for each of the SCMs identified for this program.

viii. Continue to document appropriate education and training measures for construction site operators.

The permittee must provide a description of how the success of this program element (Construction Site Runoff) is evaluated, including how the measurable goals for each of the SCMs were selected.

10. *Public Education and Outreach/Public Involvement and Participation on Storm Water Impacts:* Each permittee shall maintain a centralized tracking database system accessible to all personnel and available to LDEQ upon request to document Public Education and Outreach/Public Involvement and Participation program activities, including public education for illicit discharges; proper management and disposal of used oil and household hazardous waste; public education on the impacts of storm water discharges; and public education on herbicides, pesticides, and fertilizers, such as the Household Hazardous Materials Collection Event. A public education program with the following elements must continue to be implemented and updated as necessary:

a. A program that promotes, publicizes, and facilitates public reporting of the presence of illicit discharges or improper disposal of materials, including floatables, into the MS4.

b. A hazardous waste management and disposal program ensuring that the proper management and disposal of used motor vehicle fluids and household hazardous wastes is promoted, publicized, and facilitated.

c. A program that promotes, publicizes, and facilitates the proper use, application, and disposal of pesticides, herbicides, and fertilizers by the public and commercial and private applicators and distributors.

d. A program that distributes educational materials to the community or conducts 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.

e. A written plan identifying each individual SCM and its corresponding measurable goal that is used in the public education and outreach program designed to minimize the discharge of pollutants into the MS4.

f. A written description of how individuals and households are informed about the steps that can be taken to reduce storm water pollution.

g. A written description of how individuals and groups are informed about becoming involved in the storm water program (with activities such as local stream and beach restoration activities).

h. A written description of how the success of this minimum measure is evaluated, including how the measurable goals for each of the SCMs were selected.

i. A written description of:

i. The educational program's target audiences likely to have significant storm water impacts (including commercial, industrial, and institutional entities) and why those target audiences were selected;
ii. The target pollutant sources that the public education program is designed to address;
iii. The outreach strategy, including planned activities and the mechanisms (e.g., printed brochures, newspapers, media, workshops, etc.) used to reach the target audiences, and the number of people that the outreach strategy is expected to reach during the term of the permit; and
iv. The party responsible for overall management and implementation of the storm water public education and outreach program and, if different, who is responsible for each of the SCMs identified for the storm water public education and outreach program.

11. *Monitoring Programs:* Each permittee shall maintain a centralized tracking database system accessible to all personnel and available to LDEQ upon request to document Monitoring program activities, including the Dry Weather Screening Program, the Wet Weather Screening Program, the Industrial and High Risk Runoff Monitoring Program including No Exposure Certification inspections, and the 303(d)/TMDL Monitoring Program.

Monitoring and associated records must be in compliance with Part VI. Standard Permit Conditions.

The permittee or designated laboratory must have an adequate analytical quality assurance/quality control program to produce defensible data of known precision and accuracy. All quality control measures must be assessed and evaluated on an

ongoing basis and quality control acceptance criteria must be used to determine the validity of the data. All method-specific quality control as prescribed in the method must be followed. If quality control requirements are not included in the method, the permittee or designated laboratory must follow the quality control requirements as prescribed in the Approved Edition (40 CFR Part 136) *Standard Methods for the Examination of Water and Wastewater*, Sections 1020A and 1020B. General sampling protocol must 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 as a downloadable PDF (search by publication #600482029 from https://www.epa.gov/nscep) or by hardcopy order from the U.S. EPA/NSCEP, P.O. Box 42419, Cincinnati, OH 45242-0419, telephone (800) 429-9198.

In accordance with 40 CFR 122.44(i)(1)(iv)(2), the permittee is required to use the most sufficiently sensitive method to quantify the presence of a pollutant. Therefore, the permittee must select a method with a minimum level of quantification (ML) that is at or below the water quality criterion (if applicable) or the MQL, whichever is less. Please be advised that should a sufficiently sensitive method not be available, the permittee must submit supporting documentation stating this. For reporting purposes, if the most sensitive method does not sufficiently prove compliance with the more stringent of the MQL or the water quality criteria, and the analytical result is less than the MDL, "non-detect" shall be reported on the DMR. If the method does sufficiently prove compliance with the more stringent of the MQL or water quality criteria and the analytical result is less than that value, zero (0) shall be reported on the DMR.

The following monitoring programs must continue to be implemented in addition to the monitoring required by Part V:

a. The *Dry Weather Screening Program* must continue ongoing efforts to detect the presence of illicit connections and improper discharges to the MS4. All areas of the MS4 must be screened at least once during the permit term. Screening methodology may include visual observation and/or analytical data and must conform to the protocol at LAC 33:IX.2511.D.1.d.iv(g): large or medium municipal separate storm sewer systems which are unable to utilize the procedures described in LAC 33:IX.2511.D.1.d.iv.(a)–(f) because a sufficiently detailed map of the separate storm sewer systems is unavailable, must field screen no more than 250 major outfalls respectively (or all major outfalls in the system, if less); in such circumstances, the applicant must establish a grid system consisting of north-south and east-west lines spaced ¼ mile apart as an overlay to the boundaries of the municipal storm sewer system, thereby creating a series of cells; the applicant will then select major outfalls in as many cells as possible until at least 250 major outfalls (medium

municipalities) are selected; a dry weather field screening analysis must be undertaken at these major outfalls at the rate of 20% each year. A major outfall is defined as a municipal separate storm sewer outfall that discharges from a single pipe with an inside diameter of 36 inches or more or its equivalent (discharge from a single conveyance other than circular pipe which is associated with a drainage area of more than 50 acres); or for municipal separate storm sewers that receive storm water from lands zoned for industrial activity (based on comprehensive zoning plans or the equivalent), an outfall that discharges from a single pipe with an inside diameter of 12 inches or more or from its equivalent (discharge from other than a circular pipe associated with a drainage area of 2 acres or more) (LAC33:IX.2511.B.5). Sample collection and analysis need not conform to the requirements of 40 CFR Part 136. However, samples taken to confirm (e.g. in support of possible legal action) a particular illicit connection or improper disposal practice should conform to the requirements of 40 CFR Part 136 (see also permit Part V.A.4) and in accordance with 40 CFR 122.44(i)(1)(iv)(2), the permittee is required to use the most sufficiently sensitive method to quantify the presence of a pollutant. Therefore, the permittee must select a method with a minimum level of quantification (ML) that is at or below the water quality criterion (if applicable) or the MQL, whichever is less.

Please be advised that should a sufficiently sensitive method not be available, the permittee must submit supporting documentation stating this. For reporting purposes, if the most sensitive method does not sufficiently prove compliance with the more stringent of the MQL or the water quality criteria, and the analytical result is less than the MDL, "non-detect" shall be reported on the DMR. If the method does sufficiently prove compliance with the more stringent of the MQL or water quality criteria and the analytical result is less than that value, zero (0) shall be reported on the DMR.

b. *Wet Weather Screening Program:* The permittee(s) must continue to identify, investigate, and address areas within their jurisdiction that may be contributing excessive levels of pollutants to the MS4. The Wet Weather Screening program:

i. Must continue to screen the MS4 and must conform to the protocol at LAC 33:IX.2511.D.1.d.iv.(g): large or medium municipal separate storm sewer systems unable to utilize the procedures described in LAC 33:IX.2511.D.1.d.iv.(a)-(f) because a sufficiently detailed map of the separate storm sewer systems is unavailable, must field screen no more than 250 major outfalls respectively (or all major outfalls in the system, if less); in such circumstances, the applicant must establish a

grid system consisting of north-south and east-west lines spaced ¼ mile apart as an overlay to the boundaries of the municipal storm sewer system, thereby creating a series of cells; the applicant will then select major outfalls in as many cells as possible until at least 250 major outfalls (medium municipalities) are selected; a wet weather field screening analysis must be undertaken at these major outfalls at the rate of 20% each year. A major outfall is defined as a municipal separate storm sewer outfall that discharges from a single pipe with an inside diameter of 36 inches or more or its equivalent (discharge from a single conveyance other than circular pipe which is associated with a drainage area of more than 50 acres); or for municipal separate storm sewers that receive storm water from lands zoned for industrial activity (based on comprehensive zoning plans or the equivalent), an outfall that discharges from a single pipe with an inside diameter of 12 inches or more or from its equivalent (discharge from other than a circular pipe associated with a drainage area of 2 acres or more) (LAC33:IX.2511.B.5). Wet weather screening outfall locations must be specified in each Annual Report.

ii. May include visual observations and/or analytical data and must specify the sampling and non-sampling techniques used for initial screening and follow-up purposes. Sample collection and analysis need not conform to the requirements of 40 CFR Part 136. However, samples taken to confirm (e.g., in support of possible legal action) a particular illicit connection or improper disposal practice should conform to the requirements of 40 CFR Part 136. In accordance with 40 CFR 122.44(i)(1)(iv)(2), the permittee is required to use the most sufficiently sensitive method to quantify the presence of a pollutant. Therefore, the permittee must select a method with a minimum level of quantification (ML) that is at or below the water quality criterion (if applicable) or the MQL, whichever is less.

Please be advised that should a sufficiently sensitive method not be available, the permittee must submit supporting documentation stating this. For reporting purposes, if the most sensitive method does not sufficiently prove compliance with the more stringent of the MQL or the water quality criteria, and the analytical result is less than the MDL, "non-detect" shall be reported on the DMR. If the method does sufficiently prove compliance with the more stringent of the MQL or water quality criteria and the analytical result is less than that value, zero (0) shall be reported on the DMR.

c. The *Industrial and High Risk Runoff Monitoring Program* must continue monitoring storm water discharges from Type 1 and 2 facilities (as defined below in c.i and c.ii) which discharge to the MS4. Analytical monitoring

data collected by a facility to comply with or apply for an LPDES discharge permit (other than this permit) may be used, on a parameter-by-parameter basis, to avoid unnecessary cost and duplication of effort. The permittee(s) shall determine the appropriate monitoring frequency.

i. Type 1 facilities are municipal landfills; hazardous waste treatment, disposal and recovery facilities; facilities that are subject to EPCRA Title III, Section 313; and industrial facilities that the permittee(s) determines are contributing a substantial pollutant loading to the MS4.
   (a) Analytical monitoring of the following parameters must be conducted at a frequency determined by the permittee(s) at Type 1 facilities which discharge to the MS4:
      (i) Any pollutants limited in an existing LPDES permit for a subject facility;
      (ii) Oil and grease;
      (iii) Chemical oxygen demand (COD);
      (iv) pH;
      (v) Biochemical oxygen demand, five-day (BOD_5);
      (vi) Total suspended solids (TSS);
      (vii) Total phosphorus;
      (viii) Total Kjeldahl nitrogen (TKN);
      (ix) Nitrate plus nitrite nitrogen; and
      (x) Any information on discharges required under LAC 33:IX.2501.G.7.a.
   (b) In lieu of the above parameter list, the permittees may alter the monitoring requirement for any Type 1 facility:
      (i) To coincide with the corresponding industrial sector-specific monitoring requirements of the LPDES Multi-Sector General Storm Water Permit (May 2016) or any applicable LPDES general permit. This exception is not contingent on whether a particular facility is actually covered by the general permit; or
      (ii) To coincide with the monitoring requirements of any individual permit for the storm water discharges from that facility.

   The optional monitoring list must be supplemented by any pollutants of concern identified by the permittee(s) for that facility.

ii. Type 2 facilities are other (non-Type 1) municipal waste treatment, storage, or disposal facilities (e.g., publicly owned treatment works (POTW) facilities, transfer stations, incinerators); and industrial or commercial facilities the permittee(s) believe are contributing pollutants to the MS4. Appropriate monitoring (e.g., analytic, visual), as determined by the permittee(s), must be conducted at

Type 2 facilities which discharge to the MS4.

iii. No Exposure Certification: In lieu of analytic monitoring, the permittee(s) may accept a certification from a facility that raw and waste materials, final and intermediate products, by-products, material handling equipment or activities, industrial machinery or operations, or significant materials from past industrial activity are not presently exposed to storm water and are not expected to be exposed to storm water for the certification period. Where the permittee(s) accept a "no exposure" certification, the permittee(s) must conduct periodic physical site inspections (not less than once per permit term) to verify the facility's "no exposure" exemption.

d. The *303(d)/TMDL Monitoring Program:*

Discharges to water bodies where a TMDL is complete but no wasteload allocation (WLA) has been established for discharges from the MS4 for the pollutants of concern. No additional monitoring is required except as required in Part V.A.1.a of this permit.

Discharges to water bodies where a TMDL is complete and a WLA has been established for discharges from the MS4: All permittees must take quarterly grab samples for the pollutants for which a WLA has been assigned. Quarterly grab samples are to be taken at all representative outfalls that meet the definition of major MS4 outfalls and identifying outfall locations in the SWMP draining basins which discharge to a stream for which the TMDL is applicable. A major MS4 outfall is a municipal separate storm sewer outfall that discharges from a single pipe with an inside diameter of 36 inches or more or its equivalent (discharge from a single conveyance other than circular pipe which is associated with a drainage area of more than 50 acres); or for municipal separate storm sewers that receive storm water from lands zoned for industrial activity (based on comprehensive zoning plans or the equivalent), an outfall that discharges from a single pipe with an inside diameter of 12 inches or more or from its equivalent (discharge from other than a circular pipe associated with a drainage area of 2 acres or more) (LAC 33 IX.2511.B.5). Monitoring data is to be kept in the SWMP and used to determine if storm water controls are adequate to maintain compliance with the MS4's WLA.

Discharges to 303(d) listed streams with an impairment identified as caused by MS4s. If samples from the first four (4) quarters are non-detect, the MS4 may discontinue sampling after the first year. No-discharge scenarios are not an acceptable substitution for the data. The samples must be collected from a measurable storm water event. The permittee must take quarterly grab samples for the pollutant(s) cited in the 303(d) list as

caused by storm water discharges. Quarterly grab samples are to be taken at all representative outfalls that meet the definition of major MS4 outfalls and identified outfall locations in the SWMP. A major MS4 outfall is a municipal separate storm sewer outfall that discharges from a single pipe with an inside diameter of 36 inches or more or its equivalent (discharge from a single conveyance other than circular pipe which is associated with a drainage area of more than 50 acres); or for municipal separate storm sewers that receive storm water from lands zoned for industrial activity (based on comprehensive zoning plans or the equivalent), an outfall that discharges from a single pipe with an inside diameter of 12 inches or more or from its equivalent (discharge from other than a circular pipe associated with a drainage area of 2 acres or more) (LAC 33 IX.2511.B.5). The outfalls are to be mapped and the mapping system must be accessible to the public and LDEQ upon request. **These are in addition to the 5 representative outfalls in Table V.A.1.b.** Monitoring data is to be kept in the SWMP and used to determine if storm water controls need to be modified to better control the discharge of the pollutants of concern.

12. *Pollution Prevention/Good Housekeeping for Municipal Operations:* Each permittee shall maintain a centralized tracking database system accessible to all personnel and available to LDEQ upon request to document the Pollution Prevention/Good Housekeeping for Municipal Operations program activities, including Employee Training and Inspection and Monitoring of Wastewater Treatment Systems. The permittees must:

    a. Continue to 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; and

    b. Use training materials that are available from EPA, LDEQ, other organizations, or training material that the permittees have developed or adapted. The program must include employee training 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. At a minimum, the program should include:

        i. Operation and maintenance as an integral component of all SWMPs. The intent is to improve the efficiency of all these programs and require new programs where necessary;
        ii. Maintenance activities, maintenance schedules, and long-term inspection procedures for structural and non-structural storm water controls to reduce floatables and other pollutants discharged from the MS4;

iii. Controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage areas, salt/sand storage locations and snow disposal areas operated by the permittee(s), and waste transfer stations;

iv. Procedures for properly disposing of waste removed from the separate storm sewers and areas listed above (such as dredge spoil, accumulated sediments, floatables, and other debris); and

v. Ways to ensure that new flood management projects assess the impacts on water quality and examine existing projects for incorporating additional water quality protection devices or practices.

c. Continue to define appropriate SCMs for pollution prevention/good housekeeping for municipal operations and measurable goals for each SCM.

d. Continue to provide a written description of how the success of this minimum measure is evaluated, including how the measurable goals for each of the SCMs were selected.

13. *Measurable Goals*: In accordance with EPA's 8/1/96 policy "Interim Permitting Approach for Water Quality-Based Effluent Limitations in Storm Water Permits," each permittee must implement Measurable Goals (for Control Measures over which it has control), modifying as necessary, to assess the effectiveness of the SCMs used to satisfy the requirements of the Control Measures identified in Part II.A.1-12. Non-traditional MS4s such as universities and LDOTD may share implementation of one or more of the minimum measures with another entity or may fully implement the measure. The permittee may rely on another entity only if (1) the other entity, in fact, implements the control measure; (2) the particular control measure, or component of that measure is at least as stringent as the corresponding permit requirement; (3) the other entity agrees to implement the control measure on the permittee's behalf. A legally binding written acceptance of this obligation is expected. This obligation must be maintained as part of the SWMP. If the other entity agrees to report on the minimum measure, the permittee must supply the other entity with the reporting requirements contained in this permit under Part V.C; (4) the permittee remains responsible for permit compliance and implementation of the minimum measure if the other entity fails to do it. If necessary to meet the requirements of the permit, the SWMP must be revised and all changes must be submitted to LDEQ in the next Annual Report. Measurable Goals must include the months and years in which actions will be undertaken, including interim milestones and the frequency of the actions. Additional program development resources are available through the EPA website at https://www.epa.gov/npdes. Guidance on Minimum Control Measures and Measurable Goals and a menu of SCMs can be accessed from

https://www.epa.gov/npdes/npdes-stormwater-program and http://www.epa.gov/npdes/pubs/measurablegoals.pdf. Measurable Goals that were required to be developed and implemented during the term of the earlier permit must be maintained and updated as necessary for the SCMs identified in the SWMP and used to satisfy the requirements of the following Control Measures:

	Program Elements/ Minimum Control Measures	Responsible Permittees
1	Structural Controls and Storm Water Collection System Operation	Jefferson Parish, LDOTD, Gretna, Harahan, Kenner, Westwego
2	Areas of New Development and Significant Redevelopment	Jefferson Parish, LDOTD, Gretna, Harahan, Kenner, Westwego
3	Roadways	Jefferson Parish, LDOTD, Gretna, Harahan, Kenner, Westwego
4	Flood Control Projects	Jefferson Parish, LDOTD
5	Pesticide, Herbicide, and Fertilizer Application	Jefferson Parish, LDOTD, Gretna, Harahan, Kenner, Westwego
6	Illicit Discharges and Improper Disposal	Jefferson Parish, LDOTD, Gretna, Harahan, Kenner, Westwego
7	Spill Prevention and Response	Jefferson Parish, LDOTD, Gretna, Harahan, Kenner, Westwego
8	Industrial and High Risk Runoff	Jefferson Parish, Gretna, Harahan, Kenner, Westwego
9	Construction Site Runoff	Jefferson Parish, LDOTD, Gretna, Harahan, Kenner, Westwego
10	Public Education and Outreach/Public Involvement and Participation	Jefferson Parish, LDOTD, Gretna, Harahan, Kenner, Westwego
11	Monitoring Programs	Jefferson Parish, Gretna, Harahan, Kenner, Westwego
12	Pollution Prevention/Good Housekeeping for Municipal Operations	Jefferson Parish, LDOTD, Gretna, Harahan, Kenner, Westwego

14. *Green Infrastructure/Low Impact Development*: In conjunction with Part II.A.9.a.iv (Construction Site Run Off–Site Plan Review) the permittees must review requirements for construction developments to identify and remove impediments, where feasible, and use Green Infrastructure/Low Impact Development (GI/LID) practices that could help avoid water quality degradation as well as reduce flooding potential caused by increased runoff volumes and rates associated with development.

The Internet website http://water.epa.gov/infrastructure/greeninfrastructure/index.cfm serves as an informational clearinghouse for issues related to GI. GI management approaches can be used to keep rainwater out of the sewer system so that it does not contribute to sewer overflow and to reduce the amount of treated runoff discharging to surface waters. GI also allows storm water to be absorbed and cleansed by soil and vegetation and either re-used or allowed to flow back into groundwater or surface water resources. Other related resources can be found at www.epa.gov/dced, www.smartgrowth.org, www.epa.gov/owow/nps/lid, and https://cfpub.epa.gov/npstbx/index.html.

B. Area-specific Storm Water Management Program Requirements—Pollutant Reduction Plans (PRPs) for TMDLs

1. If a TMDL has been approved for a water body, the permittee(s) must continue to review the adequacy of their SWMP to meet the TMDL's WLA set for municipal storm water sources. If a TMDL assigns an individual WLA specifically for the MS4's storm water discharges, the permittee(s) must include that WLA as a Measurable Goal for the SWMP.

   If the MS4 area is subject to a TMDL that identifies an aggregate WLA for applicable co-permittees, then the SWMP may identify such WLA as the benchmark. Where an aggregate WLA benchmark is used, all affected MS4 operators are jointly responsible for progress in meeting the benchmark goal and must (jointly or individually) develop a monitoring/assessment plan as required in Part II.A.11.d. Where an aggregate WLA benchmark has been broken into sub-benchmarks for each MS4, each co-permittee is only responsible for progress in meeting its WLA sub-benchmark goal.

   If the SWMP is not meeting the applicable requirements of existing or newly approved TMDLs, the permittee(s) must modify their SWMP accordingly. **The permittee(s) must modify their SWMP to implement the TMDL within 6 months of the TMDL's approval or as otherwise specified in the TMDL.** If it is determined by the co-permittees, LDEQ, and/or EPA that the control measures outlined in Part II.A 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 whether this permit must be modified to adequately control the pollutant(s) of concern.

2. If a WLA is assigned to discharges of a particular pollutant from the MS4 to a particular basin subsegment, the permittee(s) must monitor in accordance with permit Part II.A.11.d to determine if the stormwater controls are adequate to maintain compliance with the MS4's WLA, unless alternative monitoring

requirements are specified in the TMDL. If data collected shows that additional or modified controls are necessary to meet the WLA for a particular pollutant, then the permittee(s) must describe the additional or modified controls that will be implemented and include a schedule for implementation. The permittee(s) must continue to evaluate the adequacy of the SCMs that have been implemented to meet the WLA for a particular pollutant and modify as necessary until 2 continuous sampling cycles show that the WLAs are being met or that water quality standards are being met.

If, by the end of the third year from the effective date of the permit, no progress is observed toward the benchmark goal from an aggregated WLA, the co-permittees must identify sub-benchmark goals for their respective MS4 areas. Each co-permittee must identify alternative focused SCMs that address new or increased efforts towards the sub-benchmark goal. These revised SCMs, including implementation schedules, must be included in the SWMP and subsequent Annual Reports. **[NOTE: The permittee(s) should consult the latest edition of the Louisiana Water Quality Management Plan, which is available on the LDEQ website at: http://edms.deq.louisiana.gov/app/doc/view.aspx?doc=10576955&ob=yes&child=yes to determine if a WLA for their discharges has been included in a TMDL that is issued after the effective date of this permit.]**

3. If a WLA is assigned to discharges of a particular pollutant from the MS4 to a particular basin subsegment, the permittee(s) must 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 public education program to reduce the discharge of nutrients from the over application of residential and commercial fertilizers.

   d. 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.

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

C. **Deadlines for Program Implementation.** Except as provided in Part III, full implementation of the SWMP shall begin on the effective date of the permit.

D. **Roles and Responsibilities of Permittee(s).** The SWMP, together with any attached interagency agreements, must clearly identify the roles and responsibilities of each permittee.

E. **Legal Authority.** Each permittee must ensure legal authority to control discharges to and from those portions of the MS4 over which it has jurisdiction. This legal authority may be a combination of statute, ordinance, permit, contract, order, or interjurisdictional agreements with permittees with existing legal authority to:

1. Control the contribution of pollutants to the MS4 by Storm Water Discharges Associated with Industrial Activity and the quality of storm water discharged from sites of industrial activity;

2. Prohibit illicit discharges to the MS4;

3. Control the discharge of spills and the dumping or disposal of materials other than storm water (e.g. industrial and commercial wastes, trash, used motor vehicle fluids, leaf litter, grass clippings, animal wastes, etc.) into the MS4;

4. Control through interagency or interjurisdictional agreements among permittees the contribution of pollutants from one portion of the MS4 to another;

5. Require compliance with conditions in ordinances, permits, contracts or orders;

6. Carry out all inspection, surveillance and monitoring procedures necessary to determine compliance with permit conditions.

7. Carry out the following in cases when 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 interjurisdictional agreements with municipalities where the small MS4 is located. These interjurisdictional 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 interjurisdictional 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.

F. **Storm Water Management Program Resources.** Each permittee must provide adequate finances, staff, equipment, and support capabilities to implement its activities under the SWMP.

G. **Storm Water Management Program Review and Update.** If necessary to meet permit requirements, the SWMP must be revised and all changes must be submitted to LDEQ as specified below.

1. *Storm Water Management Program Review:* Each permittee must participate in an annual review of the current SWMP in conjunction with preparation of the Annual Report required under Part V.C.

2. An updated Storm Water Management Program Plan **must be submitted to LDEQ within 6 months of the effective date of this permit**, incorporating all required elements, as specified in Part II, Sections A and B of this permit. In addition, the SWMP must include the following:

   a. Addition of subsegment delineations in maps and cross-referencing to maps within SWMP text (title or number of each topographic map provided in the SWMP as corresponds to applicable SCMs),

   b. Measurable goals to address any WLAs contained in TMDLs that include the Jefferson Parish MS4 receiving waters,

   c. Details regarding the co-permittees' mechanisms for tracking and handling citizen complaints,

   d. GPS locations for representative monitoring outfalls 001-005, and

   e. Submit any existing interagency agreements (Part I.C.2) for Minimum Control Measures/Program Elements responsibilities that are shared and/or transferred.

3. *Storm Water Management Program Update:* The permittee(s) may change the Storm Water Management Program during the term of the permit in accordance with the following procedures:
   a. The approved SWMP must not be changed by the permittee(s) without the approval of the LDEQ, unless in accordance with Parts II.G.3.b, c, or d. Requests for changes not in accordance with Parts II.G.3.b, c, or d must be

submitted to the LDEQ Water Permits Division, separately from the Annual Report submittal, which is directed to the LDEQ Enforcement Division.

b. Changes adding (but not subtracting or replacing) components, controls, or requirements to the SWMP may be made by the permittee(s) at any time upon written notification to the LDEQ.

c. Changes replacing an ineffective or infeasible SCM specifically identified in the SWMP with an alternate SCM may be requested at any time. Unless denied by the LDEQ, changes proposed in accordance with the criteria below shall be deemed approved and may be implemented by the permittee(s) 60 days from submittal of the request. Such requests must include the following:

i. An analysis of why the SCM is ineffective or infeasible (including cost prohibitive),
ii. Expectations of the effectiveness of the replacement SCM, and
iii. An analysis of why the replacement SCM is expected to achieve the goals of the SCM to be replaced.

d. Changes resulting from schedules contained in Part III may be requested following completion of an interim task or final deadline. Unless denied by the LDEQ, proposed changes meeting the criteria contained in the applicable Part III schedule shall be deemed approved and may be implemented by the permittee(s) 60 days from submittal date.

e. Change requests or notifications must be made in writing, signed in accordance with Part VI.H by all directly affected permittees, and include a certification that all permittees were given an opportunity to comment on proposed changes prior to submittal to the Secretary.

4. *Storm Water Management Program Updates Required by the LDEQ:* The LDEQ may require changes to the SWMP as needed to:

a. Address impacts on receiving water quality caused, with reasonable potential to have been caused, or contributed to, by discharges from the MS4;

b. Include more stringent requirements necessary to comply with new state or federal statutory or regulatory requirements; or

c. Include such other conditions deemed necessary by the LDEQ to comply with the goals and requirements of the Clean Water Act.

Changes requested by the LDEQ must be made in writing, set forth the time schedule for the permittee(s) to develop the changes, and offer the permittee(s) the opportunity to propose alternative program changes to meet the objective of the requested modification. All changes required by the LDEQ must be made in accordance with LAC 33:IX.3105, LAC 33:IX.2903, or LAC 33:IX.2905, as appropriate.

5. *Transfer of Ownership, Operational Authority, or Responsibility for Storm Water Management Program Implementation:* The permittee(s) must implement the SWMP on all new areas added to their portion of the MS4 (or for which they become responsible for implementation of storm water quality controls) as expeditiously as practicable, but not later than 3 years 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.

   Prior to land annexation, the permittee(s) must include a schedule in the SWMP for extending the coverage of the SWMP to the annexed areas. At least 30 days prior to transfer of operational authority or responsibility for SWMP implementation, all parties must prepare a schedule for transfer of responsibility for SWMP implementation on the affected portions of the Municipal Separate Storm Sewer System. Information on all new annexed areas and any resulting updates to the SWMP must be described in the Annual Report.

H. **Retention of Storm Water Management Program Records.** The permittee must retain the SWMP developed in accordance with Parts II and III for at least 3 years after coverage under this permit terminates.

PART III. SCHEDULES FOR IMPLEMENTATION AND COMPLIANCE

A. Implementation and Augmentation of Storm Water Management Program(s)

The permittee(s) must comply with the following schedules for Storm Water Management Program implementation and augmentation and permit compliance.

Table III.A - Implementation and Augmentation of Storm Water Management Program

Storm Water Management Program Component	Activity	Responsible Permittee(s)	Compliance Date
Storm Water Management Program Review and Update	An updated Storm Water Management Program Plan must be submitted to LDEQ within 6 months of the effective date of this permit, incorporating all required elements, as specified in Part II, Sections A and B of this permit.[1]	Jefferson Parish	6 months from the effective date
Structural Controls and Storm Water Collection System Operation - Part II.A.1	Submit update report and certification of ongoing maintenance/ inspection practices of the System Maintenance Program in the Annual Report required under Part V.C.	Jefferson Parish, LDOTD, Gretna, Harahan, Kenner, Westwego	May 1 Annually
Post-construction Storm Water Management New and Significant Redevelopment - Part II.A.2	Submit update report and certification of on-going maintenance/ inspection practices of the System Maintenance Program in the Annual Report required under Part V.C.	Jefferson Parish, LDOTD, Gretna, Harahan, Kenner, Westwego	May 1 Annually
Roadways - Part II.A.3	Submit update report and certification of continuance of program and program updates in the Annual Report required under Part V.C.	Jefferson Parish, LDOTD, Gretna, Harahan, Kenner, Westwego	May 1 Annually
Flood Control Projects - Part II.A.4	Submit update report and certification of continuance of program and program updates in the Annual Report required under Part V.C.	Jefferson Parish, LDOTD	May 1 Annually

[1] From Part II: Each permittee must contribute to the revision and implementation of a comprehensive SWMP, including pollution prevention measures, treatment or removal techniques, storm water monitoring, enforcement of ordinances or other regulatory mechanisms identified in the SWMP, and other appropriate means to control the quality of storm water discharged from the MS4.

Storm Water Management Program Component	Activity	Responsible Permittee(s)	Compliance Date
Pesticide, Herbicide, and Fertilizer Application - Part II.A.5	Submit update report and certification of continuance of program and program updates in the Annual Report required under Part V.C.	Jefferson Parish, LDOTD, Gretna, Harahan, Kenner, Westwego	May 1 Annually
Illicit Discharge and Improper Disposal – Part II.A.6.a	Submit update report and certification of continuance of program and program updates in the Annual Report required under Part V.C.	Jefferson Parish, LDOTD, Gretna, Harahan, Kenner, Westwego	May 1 Annually
Illicits – Part II.A.6.b	Submit update report and certification of continuance of program and program updates in the Annual Report required under Part V.C.	Jefferson Parish, LDOTD, Gretna, Harahan, Kenner, Westwego	May 1 Annually
Illicits – Part II.A.6.c	Submit update report and certification of continuance of program and program updates in the Annual Report required under Part V.C.	Jefferson Parish, LDOTD, Gretna, Harahan, Kenner, Westwego	May 1 Annually
Illicits – Part II.A.6.d	Submit update report and certification of continuance of program and program updates in the Annual Report required under Part V.C.	Jefferson Parish, LDOTD, Gretna, Harahan, Kenner, Westwego	May 1 Annually
Illicits – Part II.A.6.e	Submit update report and certification of continuance of program and program updates in the Annual Report required under Part V.C.	Jefferson Parish, LDOTD, Gretna, Harahan, Kenner, Westwego	May 1 Annually
Illicits – Part II.A.6.f	Submit update report and certification of continuance of program and program updates in the Annual Report required under Part V.C.	Jefferson Parish, LDOTD, Gretna, Harahan, Kenner, Westwego	May 1 Annually

Storm Water Management Program Component	Activity	Responsible Permittee(s)	Compliance Date
Illicits – Part II.A.6.g	Submit update report and certification of continuance of program and program updates in the Annual Report required under Part V.C.	Jefferson Parish, LDOTD, Gretna, Harahan, Kenner, Westwego	May 1 Annually
Illicits – Part II.A.6.h	Submit update report and certification of continuance of program and program updates in the Annual Report required under Part V.C.	Jefferson Parish, LDOTD, Gretna, Harahan, Kenner, Westwego	May 1 Annually
Spill Prevention and Response – Part II.A.7	Submit update report and certification of continuance of program and program updates in the Annual Report required under Part V.C.	Jefferson Parish, LDOTD, Gretna, Harahan, Kenner, Westwego	May 1 Annually
Industrial & High Risk Runoff – Part II.A.8	Submit update report and certification of continuance of program and program updates in the Annual Report required under Part V.C.	Jefferson Parish, Gretna, Harahan, Kenner, Westwego	May 1 Annually
Construction Site Runoff – Part II.A.9	Submit update report and certification of continuance of program and program updates in the Annual Report required under Part V.C.	Jefferson Parish, LDOTD, Gretna, Harahan, Kenner, Westwego	May 1 Annually
Public Education and Outreach/Public Involvement and Participation on Storm Water Impacts – Part II.A.10	Submit update report and certification of continuance of program and program updates in the Annual Report required under Part V.C.	Jefferson Parish, LDOTD, Gretna, Harahan, Kenner, Westwego	May 1 Annually
Monitoring Programs – Part II.A.11.a Dry Weather Screening	Submit update report and certification of continuance of program and program updates in the Annual Report required under Part V.C.	Jefferson Parish, Gretna, Harahan, Kenner, Westwego	May 1 Annually

Storm Water Management Program Component	Activity	Responsible Permittee(s)	Compliance Date
Monitoring Programs – Part II.A.11.b Wet Weather Screening	Submit update report and certification of continuance of program and program updates in the Annual Report required under Part V.C.	Jefferson Parish, Gretna, Harahan, Kenner, Westwego	May 1 Annually
Monitoring Programs – Part II.A.11.c Industrial and High Risk Runoff	Submit update report and certification of continuance of program and program updates in the Annual Report required under Part V.C.	Jefferson Parish, Gretna, Harahan, Kenner, Westwego	May 1 Annually
Monitoring Programs – Part II.A.11.d 303(d)/TMDL	As specified in Part II.A.11.d, all permittees must take quarterly samples for the pollutants for which a WLA has been assigned. Submit update report and certification of continuance of program and program updates in the Annual Report required under Part V.C.	Jefferson Parish, Gretna, Harahan, Kenner, Westwego (as applicable)	May 1 Annually
Pollution Prevention/Good Housekeeping for Municipal Operations – Part II.A.12	Submit update report and certification of continuance of program and program updates in the Annual Report required under Part V.C.	Jefferson Parish, LDOTD, Gretna, Harahan, Kenner, Westwego	May 1 Annually
Measurable Goals – Part II.A.13	As specified in Part II.A.1-13, include updates/changes to the Measurable Goals for the SCMs used to satisfy the control measures in the Annual Report required under Part V.C.	Jefferson Parish, LDOTD, Gretna, Harahan, Kenner, Westwego	May 1 Annually
Green Infrastructure/Low Impact Development – Part II.A.14	As specified in Part II.A.14, include report of any progress to identify and remove impediments to use Green Infrastructure/Low Impact Development practices in the Annual Report.	Jefferson Parish, LDOTD, Gretna, Harahan, Kenner, Westwego	May 1, 2018 then Annually thereafter
Area-specific Storm Water Management Program Requirements – Pollutant Reduction Plans for TMDLs – Part II.B.1	As specified in Part II.B.1, submit applicable modifications to the SWMP to meet TMDLs' WLAs set for municipal storm water sources. The permittee(s) must include that WLA as a measurable goal for their SWMP.	Jefferson Parish, LDOTD, Gretna, Harahan, Kenner, Westwego	6 months from the effective date

Storm Water Management Program Component	Activity	Responsible Permittee(s)	Compliance Date
Area-specific Storm Water Management Program Requirements – Pollutant Reduction Plans for TMDLs – Part II.B.2	The permittee(s) must continue to evaluate the adequacy of the SCMs that have been implemented to meet the WLA for a particular pollutant and modify as necessary until 2 continuous sampling cycles show that the WLAs are being met or that water quality standards are being met. If, by the end of the third year from the effective date of the permit, no progress is observed toward the benchmark goal from an aggregated WLA, the co-permittees must identify sub-benchmark goals for their respective MS4 areas. Each co-permittee must identify alternative focused SCMs that address new or increased efforts towards the sub-benchmark goal. These revised SCMs, including implementation schedules, must be included in the SWMP and subsequent Annual Reports. Note: If a WLA is assigned to discharges of a particular pollutant from the MS4 to a particular basin subsegment, the permittee(s) must follow the recommended controls in Part II.B.3 or develop other controls that may best achieve the pollutant reduction goals.	Jefferson Parish, LDOTD, Gretna, Harahan, Kenner, Westwego	May 1 Annually
Roles of Permittees – Part II.D	Submit a full report including the summary of the test results and estimate of the annual pollutant loadings in the Annual Report as required under Part V.C.	Jefferson Parish, LDOTD, Gretna, Harahan, Kenner, Westwego	May 1 Annually
Roles of Permittees – Part II.D	Submit update report and certification of continuance of program and program updates in the Annual Report required under Part V.C.	Jefferson Parish, LDOTD, Gretna, Harahan, Kenner, Westwego	May 1 Annually
Roles of Permittees – Part II.D	Submit plan of action required under Part I.C.1.e and any existing interagency agreements (Part I.C.2) within 6 months of the effective date of this permit.	Jefferson Parish, LDOTD, Gretna, Harahan, Kenner,	6 months from the effective date
Legal Authority – Part II.E	Submit update report and certification of continuance of program and program updates in the Annual Report required under Part V.C.	Jefferson Parish, LDOTD, Gretna, Harahan, Kenner, Westwego	May 1 Annually

Storm Water Management Program Component	Activity	Responsible Permittee(s)	Compliance Date
Representative Monitoring – Part V.A Storm Event Discharges	Submit update report and certification of continuance of program and program updates in the Annual Report required under Part V.C.	Jefferson Parish,	May 1 Annually
Representative Monitoring – Part V.A Representative Wet Weather Monitoring	As specified in Part V.A.1, wet weather monitoring samples must be collected from a measurable storm water event (see Part V.A.1. a and c for monitoring requirements).	Jefferson Parish,	6 months from the effective date and semiannually thereafter

B. **Reporting Compliance with Schedules.** No later than 14 days following a date for a specific action (interim milestone or final deadline) identified in the above schedule(s), the permittee(s) must submit a written notice of compliance or noncompliance to the LDEQ in accordance with Part V.E.

C. **Updating SWMP(s).** The permittee(s) must update the SWMP(s), as appropriate, in response to changes required by Part III.A. Such updates must be made in accordance with Part II.G.3.

PART IV. DISCHARGE LIMITATIONS

A. **Discharge Limitations.** Numeric discharge limitations are not established at this time.

PART V. MONITORING AND REPORTING REQUIREMENTS

A. Storm Event Discharges

1. *Representative Wet Weather Monitoring:* Unless otherwise required by part II.A.11.b, wet weather monitoring of 5 to 10 representative outfalls, internal sampling stations, and/or instream monitoring locations must be conducted to characterize the quality of storm water discharges from the MS4. No-discharge scenarios are not an acceptable substitution for the data. The samples must be collected from a measurable storm water event.

   a. Monitoring requirements: Refer to Table V.A.1.a.

   b. Outfall descriptions: Refer to Table V.A.1.b.

   c. Alternate representative monitoring locations may be substituted for just cause during the term of the permit. Requests for approval of alternate monitoring locations must be made to the LDEQ in writing and include the rationale for the requested monitoring station relocation. Unless disapproved by LDEQ, use of an alternate monitoring location (except for outfalls with numeric effluent limitations) may commence 30 days from the date of the request. A program for the collection of baseline monitoring data must be proposed for all substitute outfalls.

Table V.A.1.a. - Representative Monitoring Requirements: Outfalls 001 - 005

PARAMETERS (unit) (MQL, if applicable)[1]	REPORT FOR EACH MONITORING PERIOD[2] (each sample type)			SAMPLE TYPE(S)		MONITORING FREQUENCY[3]
	Minimum	Monthly Average	Daily Maximum	Grab	Composite	
Biochemical Oxygen Demand (BOD_5) (mg/l)		Yes	Yes		Yes	2/year
Chemical Oxygen Demand (COD) (mg/l)		Yes	Yes		Yes	2/year
Oil and Grease (mg/l)		Yes	Yes	Yes		2/year
Total Suspended Solids (TSS) (mg/l)		Yes	Yes		Yes	2/year
Total Dissolved Solids (TDS) (mg/l)		Yes	Yes		Yes	2/year
Total Kjeldahl Nitrogen (TKN) (mg/l)[4]		Yes	Yes		Yes	2/year
Total Nitrogen (mg/l)		Yes	Yes		Yes	2/year
Total Phosphorus (mg/l)		Yes	Yes		Yes	2/year
Dissolved Phosphorus (mg/l)		Yes	Yes		Yes	2/year
Total Cadmium (µg/l) (1 µg/l)		Yes	Yes		Yes	2/year
Total Copper (µg/l) (3 µg/l)		Yes	Yes		Yes	2/year
Total Nickel (µg/l) (5 µg/l)		Yes	Yes		Yes	2/year
Total Lead (µg/l) (2 µg/l)		Yes	Yes		Yes	2/year
Total Zinc (µg/l) (20 µg/l)		Yes	Yes		Yes	2/year
Fecal Coliform (colonies/100 ml)		Yes	Yes	Yes		2/year

PARAMETERS (unit) (MQL, if applicable)[1]	REPORT FOR EACH MONITORING PERIOD[2] (each sample type)			SAMPLE TYPE(S)		MONITORING FREQUENCY[3]
	Minimum	Monthly Average	Daily Maximum	Grab	Composite	
pH (S.U.)	Yes		Yes	Yes		2/year
Hardness (as $CaCO_3$) (mg/l)	Yes	Yes	Yes	Yes		2/year
Temperature (°C)	Yes	Yes	Yes	Yes		2/year

[1] In accordance with 40 CFR 122.44(i)(1)(iv)(2), the permittee is required to use the most sufficiently sensitive method to quantify the presence of a pollutant. Therefore, the permittee must select a method with a minimum level of quantification (ML) that is at or below the water quality criterion (if applicable) or the MQL, whichever is less. Please be advised that should a sufficiently sensitive method not be available, the permittee must submit supporting documentation stating this. For reporting purposes, if the most sensitive method does not sufficiently prove compliance with the more stringent of the MQL or the water quality criteria, and the analytical result is less than the MDL, "non-detect" shall be reported on the DMR. If the method does sufficiently prove compliance with the more stringent of the MQL or water quality criteria and the analytical result is less than that value, zero (0) shall be reported on the DMR.

[2] Monitoring must occur two times during the monitoring year. Storm water samples must be collected during the period **January - June** and again during the period **July – December.** However, it is expected that storm water samples collected represent two distinctly separate seasons. Samples should not be collected in June then again in July. **The Annual Report that is due no later than May 1 shall include analytical results for the monitoring events that are conducted during the period January 1 to December 31. The Annual Report must also contain sampling dates with sampler's name and agency/company for each sampling date.**

[3] Monitoring must occur two times during the monitoring year. Storm water samples are to be collected during the period January 1 through December 31 during each year of the permit term. Representative wet weather monitoring samples must be taken once within the first 6 months of the effective date of the permit. **However**, if the permittee chooses to implement a rapid bioassessment monitoring program under the Alternative Bioassessment Option (see Part V.A.2.), monitoring must be in accordance with the requirements defined in Part V.A.2.b.

[4] Total ammonia plus organic nitrogen.

Table V.A.1.b - Representative Monitoring Outfall Descriptions

OUTFALL	LOCATION	DESCRIPTION	RESPONSIBLE PERMITTEE
001	Station is end-of-pipe at a 72" concrete pipe discharging into Soniat Canal at Sauve Road. Latitude 29° 58' 14.93" N, Longitude 90° 12' 34.62" W. LDEQ subsegment 041302.	R1, Residential Station – Soniat Canal: the area drains 130.3 acres of residential land.	Jefferson Parish
002	Station is end-of-pipe at a 42" corrugated metal pipe discharging into Ames Canal at the intersection of Rue Louis Phillippe and the Ames Canal on the West Bank of the Mississippi River. Latitude 29° 52' 20.01" N, 90° 06' 54.76" W. LDEQ subsegment 020701.	R2, Residential Station – Ames Canal: the area drained is low density residential land use.	Jefferson Parish
003	Station is end-of-pipe at a 48" corrugated metal pipe discharging at the intersection of the California Canal and the Cousins Canal in the business district of Gretna on the West Bank of the Mississippi River. 29° 52' 10.19" N, 90° 04' 48.15" W. LDEQ subsegment 020601.	C1, Commercial Station – California Canal and Cousins Canal: the area drained is commercial land use.	Jefferson Parish

OUTFALL	LOCATION	DESCRIPTION	RESPONSIBLE PERMITTEE
004	Station is end-of-pipe at a 54" x 88" corrugated metal arch pipe discharging into Earhart Canal at the intersection of Lead Street and the Earhart Canal on the East Bank of the Mississippi River. Latitude 29° 58' 06.77" N, 90° 12' 02.55" W. LDEQ subsegment 041302.	I1, Industrial Station – Earhart Canal: the area drained is industrial land use.	Jefferson Parish
005	Station is end-of-pipe at a 23" x 36" corrugated metal arch pipe discharging into St. Peter's Ditch at the intersection of St. George Avenue and St. Peter's Ditch on the East Bank of the Mississippi River. Latitude 29° 57' 59.71" N, 90° 10' 48.12" W. LDEQ subsegment 041302.	I2, Industrial Station – St. Peter's Ditch: the area drained is industrial land use.	Jefferson Parish

2. *Representative Monitoring - Rapid Bioassessment Option:* The permittee(s) has/have the option of developing and implementing a rapid bioassessment monitoring program. The EPA document *Rapid Bioassessment Protocols for Use in Streams and Wadeable Rivers: Periphyton, Benthic, Macroinvertebrates, and Fish: Second Edition* provides an updated compilation of the most cost-effective and scientifically valid bioassessment methods. The entire document is available on the EPA website at https://archive.epa.gov/water/archive/web/html/index-14.html.

   a. The permittee(s) must obtain all necessary aquatic wildlife collection permits from appropriate state and/or federal agencies (e.g., Louisiana Department of Wildlife and Fisheries).

   b. Permittee(s) utilizing the rapid bioassessment monitoring option must conduct monitoring of the separate storm sewer system as described in Part V.A.1, except the monitoring for years 2, 3, and 5 is no longer required. All other requirements of Part V.A.1, A.3, and A.4 (e.g.: samples types, parameters) remain unchanged.

   c. If the permittee(s) elects to develop and implement a rapid bioassessment monitoring program, the permittee(s) must submit an approvable monitoring program to the LDEQ no later than 1 year from the effective date of this permit. An approvable program must include:

      i. Monitoring of at least 2 water bodies receiving storm water discharges from the MS4 plus a reference site located within the same ecological region as the MS4;
      ii. Monitoring of each station at least twice per year, with monitoring conducted at essentially the same time periods each year; and
      iii. Concurrent (e.g., within a day or two) monitoring of the reference site each time a station located in the receiving waters of the MS4 is monitored.

      Unless disapproved by LDEQ within 60 days, a proposed rapid bioassessment monitoring plan meeting the criteria herein shall be deemed approved and the permittee(s) may implement the alternate rapid bioassessment program.

   d. The permittee(s) must notify LDEQ (addresses provided in Part V.E), in writing, at least 14 days prior to commencing an alternate rapid bioassessment monitoring program.

3. *Storm Event Data:* For Part V.A.1 and any additional sampling conducted for Part V.A.5, quantitative data must be collected to estimate pollutant loadings and event

mean concentrations for each parameter sampled. Records must be maintained in a centralized tracking database system of all analytical results, and must include (1) the date and duration (in hours) of the storm event(s) sampled; (2) rainfall measurements or estimates (in inches) of the storm event which generated the sampled runoff; (3) the duration (in hours) between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event; and (4) an estimate of the total volume (in gallons) of the discharge sampled.

4. *Sample Type, Collection, and Analysis:* The following requirements apply only to storm event discharge samples collected for **Parts V.A.1 and V.A.5**.

   a. Composite Samples: Flow weighted composite samples must be collected as follows:

      i. Composite method – Flow-weighted composite samples may be collected manually or automatically. For both methods, equal volume aliquots may be collected at the time of sampling and then flow-proportioned and composited in the laboratory, or the aliquot volume may be collected based on the flow rate at the time of sample collection and composited in the field.
      ii. Sampling duration – Samples must be collected for at least the first 3 hours of discharge. Where the discharge lasts less than 3 hours, the entire discharge must be sampled.
      iii. Aliquot collection – A minimum of 3 aliquots per hour, separated by at least 15 minutes, must be collected. Where more than 3 aliquots per hour are collected, comparable intervals between aliquots must be maintained (e.g., 6 aliquots per hour, with at least 7-minute intervals between aliquots).

   b. Grab Samples: Grab samples must be taken during the first 2 hours of discharge.

   c. Representative Storm Events: Samples must be collected from the discharge resulting from a storm event that is greater than 0.1 inch rainfall in magnitude and that occurs at least 72 hours from the previously measurable (greater than 0.1 inch rainfall) storm event.

      The required 72-hour storm event interval is waived where the preceding measurable storm event did not result in a measurable discharge. The required 72-hour storm event interval is also waived where the permittee(s) documents that less than a 72-hour interval is representative for local storm events during the season when sampling is being conducted.

d. Analytical Methods: Analysis and collection of samples must be done in accordance with the methods specified at 40 CFR Part 136. Where an approved 40 CFR Part 136 method does not exist, any available method may be used unless a particular method or criterion for method selection (such as sensitivity) has been specified in the permit. In accordance with 40 CFR 122.44(i)(1)(iv)(2), the permittee is required to use the most sufficiently sensitive method to quantify the presence of a pollutant. Therefore, the permittee must select a method with a minimum level of quantification (ML) that is at or below the water quality criterion (if applicable) or the MQL, whichever is less. Please be advised that should a sufficiently sensitive method not be available, the permittee must submit supporting documentation stating this. For reporting purposes, if the most sensitive method does not sufficiently prove compliance with the more stringent of the MQL or the water quality criteria, and the analytical result is less than the MDL, "non-detect" shall be reported on the DMR. If the method does sufficiently prove compliance with the more stringent of the MQL or water quality criteria and the analytical result is less than that value, zero (0) shall be reported on the DMR.

5. *Seasonal Loadings and Event Mean Concentrations.* All necessary sampling data must be collected to provide estimates for each major outfall (or appropriate sub-watershed) of seasonal pollutant loadings and event mean concentrations for a representative storm event for the parameters listed in **Table V.A.1.a – Representative Monitoring Requirements**. This information may be estimated from the representative monitoring locations and must take into consideration land uses and drainage areas for the outfall. **The estimates of seasonal loadings and event mean concentrations must be included in the Annual Report for year 4 of the permit.**

B. Floatables Monitoring. Permittee(s) must continue to establish 2 monitoring locations (among all co-permittees) for removal of floatable material in discharges to or from the MS4. Floatable material must be collected at the frequency necessary for maintenance of the removal devices, but not less than twice per year. **The program must maintain records of the amount of floatable debris removed from each monitoring location during normal maintenance activity. The amount of material removed from screens must be estimated either in weight or volume.**

C. Reporting

1. Facility Changes

The permittee must give notice to the state administrative authority as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or

b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under LAC 33:IX.2703.A.1.

2. Anticipated Noncompliance

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

3. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date.

4. Requirements for Notification

a. Emergency Notification

As required by LAC 33.I.3915, in the event of an unauthorized discharge that does cause an emergency condition, the discharger must notify the hotline (DPS 24-hour Louisiana Emergency Hazardous Materials Hotline) by telephone at (225) 925-6595 (collect calls accepted 24 hours a day) immediately (a 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 1 hour after learning of the discharge. (An emergency condition is any condition which could reasonably be expected to endanger the health and 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. Prompt Notification Procedures are listed in Part V.C.4.c of these standard conditions.

A written report must be provided within 7 calendar days after the notification. The report must contain the information listed in Section C.4.d of these standard conditions and any additional information in LAC 33:I.3925.B.

b. 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 must promptly notify the department within 24 hours after learning of the discharge. Notification should be made to the Office of Environmental Compliance, Assessment Division Single Point of Contact (SPOC) in accordance with LAC 33:I.3923.

In accordance with LAC 33:I.3923, prompt notification must be provided within a time frame not to exceed 24 hours and must be given to the Office of Environmental Compliance, Assessment Division (SPOC) as follows:

i. By the Online Incident Reporting screens found at http://deq.louisiana.gov/page/file-a-complaint-report-an-incident;
ii. By email utilizing the Incident Report Form and instructions found at http://deq.louisiana.gov/page/single-point-of-contact; or
iii. By telephone at (225) 219-3640 during office hours, or (225) 342-1234 after office hours and on weekends and holidays.

c. Content of Prompt Notifications

Written reports for any unauthorized discharge that requires notification under Part V.C.4.a or 4.b, or must be submitted by the discharger to the Office of Environmental Compliance, Assessment Division SPOC in accordance with LAC 33:I.3925 within 7 calendar days after the notification required by V.C.4.a or 4.b, unless otherwise provided for in a valid permit or other department regulation. Written notification reports must include, but not be limited to, the following information:

i. The name of the person making the notification and the telephone number where any return calls from response agencies can be placed;
ii. The name and location of the facility or site where the unauthorized discharge is imminent or has occurred, using common landmarks. In the event of an incident involving transport, include the name and address of the transporter and generator;
iii. The date and time the incident began and ended, or the estimated time of continuation if the discharge is continuing;
iv. The extent of any injuries and identification of any known personnel hazards that response agencies may face;
v. The common or scientific chemical name, the U.S. Department of Transportation hazard classification, and the best estimate of amounts of any and all discharged pollutants;
vi. A brief description of the incident sufficient to allow response agencies to formulate their level and extent of response activity.

d. Written Notification Procedures

Written reports for any unauthorized discharge that requires notification under Part V.C.4.a or 4.b, or must be submitted by the discharger to the Office of Environmental Compliance, Assessment Division SPOC in accordance with LAC 33:I.3925 within 7 calendar days after the notification required by V.C.4.a or 4.b, unless otherwise provided for in a valid permit or other department regulation. Written notification reports must include, but not be limited to, the following information:

i. The name, address, telephone number, Agency Interest (AI) number (number assigned by the department) if applicable, 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 this section;

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

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

iv. 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:

(a) The current permitted limit for the pollutants(s) released; and

(b) The permitted release point/outfall ID.

v. 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 and all released pollutants (total amount of each compound expressed in pounds, including calculations);

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

vii. Remedial actions taken, or to be taken, to stop unauthorized discharges or to recover pollutants or sources of radiation.

viii. Written notification reports must be submitted to the Office of Environmental Compliance, Assessment Division SPOC by mail or fax. The transmittal envelope and report or fax cover page and report should be clearly marked "**UNAUTHORIZED DISCHARGE NOTIFICATION REPORT**."

Written reports (LAC 33:I.3925) should be mailed to:

Louisiana Department of Environmental Quality
Post Office Box 4312
Baton Rouge, LA 70821-4312
ATTENTION: ASSESSMENT DIVISION—SPOC
"UNAUTHORIZED DISCHARGE NOTIFICATION REPORT"

The Written Notification Report may also be faxed to the Louisiana Department of Environmental Quality, Office of Environmental Compliance, Assessment Division at: (225) 219-4044.

See LAC 33:I.3925.B for additional written notification procedures.

e. Twenty-four Hour Reporting

The permittee must report any noncompliance which may endanger human health or the environment. Any information must be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission must also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission must contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The following must be included as information which must be reported within 24 hours:

i. Any unanticipated bypass which exceeds any effluent limitation in the permit (see LAC 33:IX.2701.M.3.b);
ii. Any upset which exceeds any effluent limitation in the permit;
iii. Violation of a maximum daily discharge limitation for any of the pollutants listed by the state administrative authority in Part II of the permit to be reported within 24 hours (LAC 33:IX.2707.G).

f. Availability of Reports

All recorded information (completed 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) must 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:

i. The name and address of any permit applicant or permittee
ii. Permit applications, permits, and effluent data
iii. 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.

5. Other Noncompliance.
The permittee must report all instances of noncompliance not reported under Part V.C.4, 5, and 6, at the time monitoring reports are submitted. The reports must contain the information listed in V.C.4.e.

6. Annual Report
Each permittee must contribute to the preparation of a system-wide Annual Report to be submitted by no later than **May 1**. The report must cover the previous year from **January 1 to December 31** (items 6.a-h) and include the following separate sections, with an overview for the entire MS4 and subsections for each permittee:

Note: For the first year Annual Report submittal, data obtained during the quarter preceding the calendar year evaluation period (October 1, 2016 – December 31, 2016) will be required.

a. The status of implementing the SWMP(s) (status of compliance with any schedules established under this permit must be included in this section);

b. Proposed changes to the SWMP(s), including the addition of new SCMs and the Measurable Goals for the new SCMs, or the modification of any existing SCMs and/or Measurable Goals. The modification of an existing Measurable Goal must be clearly justified and supported by explaining how the modification is expected to more effectively measure the performance of its associated SCM;

c. Revisions, if necessary, to the assessments of controls and the fiscal analysis reported in the permit application under LAC 33:IX.2511.D.2.d and D.2.e;

d. A summary of the data, including monitoring data accumulated throughout the reporting year; a summary of data collected as part of the PRP including analysis of the data in order to identify and document reductions in pollutant loading;

e. Annual expenditures for the reporting period with a breakdown for the major elements of the storm water management program and the budget for the year following each Annual Report;

f. A summary describing the number and nature of enforcement actions, inspections, inspections resulting from complaints received through the Jefferson Parish website service request/complaint web page or telephone number (including their response times), public education programs, and copies of all inspection checklists and all standardized forms used in the Jefferson Parish Storm Water Program;

g. Identification of water quality improvements or degradation; and

h. Certification of activities and practices required in Table III.A.

Preparation and submittal of a system-wide Annual Report shall be coordinated by Jefferson Parish. The report must indicate which, if any, permittee(s) have failed to provide required information on the portions of the MS4 for which they are responsible to Jefferson Parish no later than 60 days prior to the report due date. Joint responsibility for report submission shall be limited to participation in preparation of the overview for the entire system and inclusion of the identity of any permittee who failed to provide input to the Annual Report. Each individual permittee must be individually responsible for content of the report relating to the portions of the MS4 for which they are responsible and for failure to provide information for the system-wide Annual Report in a timely manner. Each permittee must sign and certify the Annual Report in accordance with Part VI.H and include a statement or resolution that the permittees' governing body or agency (or delegated representative) has reviewed or been apprised of the content of the Annual Report.

D. **Certification and Signature of Reports.** All reports required by the permit and other information requested by LDEQ must be signed and certified in accordance with Part VI.H.

E. **Reporting: Where and When to Submit**

1. Representative monitoring results (Part V.A.1) obtained during the reporting period running from **January 1 to December 31** must be included in the Annual Report required by Part V.C. A separate DMR submittal is required for each monitoring period (season) specified in Part V.A.1. The Annual Report must be signed in accordance with LAC 33:IX.303.H. Pursuant to LAC 33:IX.2701.L.4a, monitoring results must be submitted to the Enforcement Division per the schedule specified below through a department-approved electronic document receiving system (NetDMR). A DMR submission must be completed for each

wastewater discharge point (outfall) listed in Table V.A.1.b. If there is a No Discharge event at any monitoring outfall(s) during the reporting period, a No Data Discharge Indicator (NODI) Code of "C" must be used for electronic DMRs. In the event that there is no discharge from a major storm water outfall, Jefferson Parish may be required to select a different outfall for monitoring purposes. Please contact the LDEQ Enforcement Division at 225-219-3572 or 225-219-3767 or visit http://deq.louisiana.gov/page/netdmr in order to register with NetDMR. A submission must be made through NetDMR, even if no discharge occurs during the monitoring period.

The schedule for semiannual DMR Submission is as follows:

Monitoring Period	**DMR Submittal Date**
January–June	**July 15**
July–December	**January 15**

2. The Annual Report required by Part V.C, and all other reports required herein, must be submitted to the LDEQ. **Submit one original set of these reports to the LDEQ Enforcement Division at:**

   Enforcement Division
   Office of Environmental Compliance
   Louisiana Department of Environmental Quality
   P.O. Box 4312
   Baton Rouge, Louisiana 70821-4312

3. Requests for SWMP updates, changes in monitoring locations, or application for an individual permit must be submitted to:

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

4. Additional Notification. **In addition, the permittee(s) must provide Annual Reports and requests for SWMP updates to**:

   Southeast Regional Office
   Office of Environmental Compliance
   201 Evans Road, Bldg. 4, Suite 420
   New Orleans, Louisiana 70123-5230

F. Minimum Level of Quantification (MQL)

POLLUTANT[1]	MQL (µg/L)
Volatiles	
Acrolein	50
Acrylonitrile	20
Benzene *	10
Bromoform *	10
Carbon tetrachloride *	2
Chlorobenzene	10
Chlorodibromomethane (Dibromochloromethane) *	10
Chloroethane	50
2-chloroethyl vinyl ether	10
Chloroform *	10
Dichlorobromomethane (Bromodichloromethane) *	10
1,1-dichloroethane	10
1,2-dichloroethane *	10
1,1-dichloroethylene *	10
1,2-dichloropropane	10
1,3-dichloropropylene (1,3-dichloropropene) *	10
Ethylbenzene *	10
Methyl bromide	50
Methyl chloride (Chloromethane) *	50
Methylene chloride *	20
1,1,2,2-tetrachloroethane *	10
Tetrachloroethylene *	10
Toluene *	10
1,2-trans-dichloroethylene	10
1,1,1-trichloroethane *	10
1,1,2-trichloroethane *	10
Trichloroethylene *	10
Vinyl chloride *	10
Acid Compounds	
2-chlorophenol *	10
2,4-dichlorophenol *	10
2,4-dimethylphenol	10
4,6-dinitro-o-cresol	50
2,4-dinitrophenol	50
2-nitrophenol	20
4-nitrophenol	50
p-chloro-m-cresol	10
Pentachlorophenol	5

POLLUTANT[1]	MQL (µg/L)
Phenol *	10
2,4,6-trichlorophenol *	10
Pesticides	
Aldrin *	0.01
Alpha-BHC	0.05
Beta-BHC	0.05
Gamma-BHC (Lindane) *	0.05
Delta-BHC	0.05
Chlordane *	0.2
4,4'-DDT *	0.02
4,4'-DDE *	0.1
4,4'-DDD (TDE(DDD)) *	0.1
Dieldrin *	0.02
Alpha-endosulfan	0.01
Beta-endosulfan	0.02
Endosulfan sulfate	0.1
Endrin *	0.02
Endrin aldehyde	0.1
Heptachlor *	0.01
Heptachlor epoxide	0.01
Total PCBs *	0.2
Toxaphene *	0.3
Base/Neutral Compounds	
Acenaphthene	10
Acenaphthylene	10
Anthracene	10
Benzidine *	50
Benzo(a)anthracene	5
Benzo(a)pyrene	5
3,4-benzofluoranthene	10
Benzo(ghi)perylene	20
Benzo(k)fluoranthene	5
Bis(2-chloroethoxy)methane	10
Bis(2-chloroethyl)ether	10
Bis(2-chloroisopropyl)ether	10
Bis(2-ethylhexyl)phthalate	10
4-bromophenyl phenyl ether	10
Butylbenzyl phthalate	10
2-chloronaphthalene	10
4-chlorophenyl phenyl ether	10
Chrysene	5
Dibenzo(a,h)anthracene	5

POLLUTANT[1]	MQL (µg/L)
1,2-dichlorobenzene	10
1,3-dichlorobenzene	10
1,4-dichlorobenzene	10
3,3'-dichlorobenzidine	5
Diethyl phthalate	10
Dimethyl phthalate	10
Di-n-butyl phthalate	10
2,4-dinitrotoluene	10
2,6-dinitrotoluene	10
Di-n-octyl phthalate	10
1,2-diphenylhydrazine (as azobenzene)	20
Fluoranthene	10
Fluorene	10
Hexachlorobenzene *	5
Hexachlorobutadiene *	10
Hexachlorocyclopentadiene	10
Hexachloroethane	20
Indeno (1,2,3-cd)pyrene	5
Isophorone	10
Naphthalene	10
Nitrobenzene	10
N-nitrosodimethylamine	50
N-nitrosodi-n-propylamine	20
N-nitrosodiphenylamine	20
Phenanthrene	10
Pyrene	10
1,2,4-trichlorobenzene	10
Other Toxic Pollutants (Metals and Cyanide) and Total Phenols	
Antimony, Total	60
Arsenic, Total *	5
Beryllium, Total	0.5
Cadmium, Total *	1
Chromium, Total	10
Copper, Total *	3
Lead, Total *	2
Mercury, Total *	0.0005/0.005
Nickel, Total *	5
Selenium, Total	5
Silver, Total	0.5
Thallium, Total	0.5
Zinc, Total *	20

POLLUTANT[1]	MQL (µg/L)
Cyanide, Total *	10
Phenols, Total *	5

[1]From LAC:33.IX.7107, Appendix D Tables II and III
*Numerical criteria for this pollutant present in Table 1 of LAC33:IX.1113

The permittee may develop an effluent-specific method detection limit (MDL) in accordance with Appendix B to 40 CFR Part 136 (see LAC 33:IX.4901). For any pollutant for which the permittee determines an effluent-specific MDL, the permittee must send to this Office a report containing QA/QC documentation, analytical results, and calculations necessary to demonstrate that the effluent-specific MDL was correctly calculated. An effluent-specific minimum quantification level (MQL) shall be determined in accordance with the following calculation:
MQL = 3.3 x MDL

Upon written approval by this Office, the effluent-specific MQL may be utilized by the permittee for all future Discharge Monitoring Report (DMR) calculations and reporting requirements.

In accordance with 40 CFR 122.44(i)(1)(iv)(2), the permittee is required to use the most sufficiently sensitive method to quantify the presence of a pollutant. Therefore, the permittee must select a method with a minimum level of quantification (ML) that is at or below the water quality criterion (if applicable) or the MQL, whichever is less. Please be advised that should a sufficiently sensitive method not be available, the permittee must submit supporting documentation stating this. For reporting purposes, if the most sensitive method does not sufficiently prove compliance with the more stringent of the MQL or the water quality criteria, and the analytical result is less than the MDL, "non-detect" shall be reported on the DMR. If the method does sufficiently prove compliance with the more stringent of the MQL or water quality criteria and the analytical result is less than that value, zero (0) shall be reported on the DMR.

PART VI. STANDARD PERMIT CONDITIONS

A. **Duty to Comply.** The permittee(s) must comply with all conditions of this permit insofar as those conditions are applicable to each permittee, either individually or jointly. Any permit noncompliance constitutes a violation of the 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.

B. **Penalties for Violations of Permit Conditions**

R.S. 30:2025 provides for civil penalties for violations of these regulations and the Louisiana Environmental Quality Act. 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. The standards provided in Chapter 11 – Surface Water Quality Standards are official regulations of the state, and any person who discharges pollutants to the waters of the state in such quantities as to cause these standards to be violated shall be subject to the enforcement procedures of the state as specified in R.S. 30:2025.

Any person may be assessed an administrative penalty by the LDEQ under 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.

1. *Criminal Penalties*

   a. Negligent Violations: 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 2 years, or both.

   b. Knowing Violations: 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 of not more than $100,000 per day of violation, or imprisonment of not more than 6 years, or both.

c. Knowing Endangerment: R.S. 30:2076.2 provides that any person who knowingly 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 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 ($1,000,000). 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.

d. False Statement: 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, 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.

2. *Civil Penalties.* 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 ($1,000,000).

C. **Duty to Reapply.** If the permittee wishes to continue an activity regulated by this permit after the permit expiration date, the permittee must apply for and obtain a new permit.

The application must be submitted at least 180 days prior to expiration of this permit. The Secretary may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date. Continuation of expiring permits shall be governed by regulations promulgated at LAC 33:IX.2321 and any subsequent amendments. The permit renewal application must consist of the most recent Annual Report, the current SWMP, and any other information that the Department deems necessary to complete or correct deficiencies. No permit application package shall be deemed complete and ready for disposition until all reasonable additional information has been supplied.

D. **Need to Halt or Reduce Activity Not a Defense.** It shall not be a defense for a permittee(s) 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.

E. **Duty to Mitigate.** The permittee(s) must 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 must 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 non-complying discharge.

F. **Duty to Provide Information.** The permittee(s) must furnish to the LDEQ, within a time specified by the LDEQ, any information which the LDEQ may request to determine whether cause exists for modifying, revoking or reissuing, or terminating this permit, or to determine compliance with this permit. The permittee(s) must also furnish to the LDEQ, upon request, copies of records required to be kept by this permit.

G. **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 application or in any report to the LDEQ, the permittee must promptly submit such facts or information.

H. **Signatory Requirements.** All Discharge Monitoring Reports, SWMPs, storm water pollution prevention plans, reports, certifications, or information either submitted to the LDEQ or that this permit requires be maintained by the permittee(s), must be signed and certified by each contributing co-permittee.

All reports required by the permit and other information requested by the LDEQ must be signed by a person described in LAC 33:IX.2503.A (for a municipality, by either a principal executive officer or ranking elected official), 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 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 any individual occupying a named position); and,

3. The written authorization is submitted to the LDEQ.

4. Certification: Any person signing documents under this section must 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."

5. Changes to authorization: If an authorization under Section VI.H 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 VI.H 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.

I. Penalties for Falsification of Monitoring Systems. 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. R.S. 30:2076.2 provides for penalties for any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance. 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 or 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 imprisonment of not more than 4 years, or both.

(PLEASE NOTE: These penalties are listed in their entirety in Subtitle II of Title 30 of the Louisiana Revised Statutes.)

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, nor any exclusive privileges.

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 a Separate Permit**

1. The LDEQ may require any co-permittee authorized by this permit to obtain a separate LPDES permit. Any interested person may petition LDEQ to take action under this paragraph. LDEQ may require any co-permittee authorized to discharge under this permit to apply for a separate LPDES permit only if the co-permittee has been notified in writing that a permit application is required. This notice must include a brief statement of the reasons for this decision, an application form (as necessary), a statement setting a deadline for the co-permittee to file the application, and a statement that on the effective date of the separate LPDES permit, coverage under this permit shall automatically terminate. Separate permit applications must be submitted to the address shown in Part V.E. LDEQ may grant additional time to submit the application upon request of the applicant. If an owner or operator fails to submit in a timely manner a separate LPDES permit application as required by LDEQ, then the applicability of this permit to the co-permittee is automatically terminated at the end of the day specified for application submittal.

2. Any co-permittee authorized by this permit may request to be excluded from the coverage of this permit by applying for a separate permit. The co-permittee must submit a separate application as specified by LAC 33:IX.2511.D with reasons supporting the request to LDEQ. Separate permit applications must be submitted to the address shown in Part V.E. The request may be granted by the issuance of a separate permit if the reasons cited by the co-permittee are adequate to support the request.

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 must 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 and with the requirements of SWMPs. 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 must 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.

3. Removed substances: solids, sewage sludges, filter backwash, or other pollutants removed in the course of treatment or wastewater control must 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.

P. Monitoring and Records

1. Samples and measurements taken for the purpose of monitoring must be representative of the monitored activity. All samples must be taken at the outfall location(s) indicated in the permit. The LDEQ Water Permits Division must be notified prior to any changes in the outfall location(s). Any changes in the outfall location(s) may be subject to modification, revocation and reissuance in accordance with LAC 33:IX.2903.

2. The permittee 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 the reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or

application. This period may be extended by request of the LDEQ at any time.

3. Records of monitoring information must be stored in a centralized tracking system and include:

   a. The date, exact place, and time of sampling or measurements;

   b. The individual(s) and agency/company that performed the sampling or measurements;

   c. The date(s) analyses were performed;

   d. The time(s) analyses were begun;

   e. The individual(s) and agency/company that performed the analyses;

   f. The analytical techniques or methods used;

   g. The results of such analyses; and

   h. The results of all quality control procedures.

Q. Monitoring

1. Monitoring Methods: All sampling and testing must be conducted in accordance with 40 CFR Part 136, unless other test procedures have been specified in this permit. In accordance with 40 CFR 122.44(i)(1)(iv)(2), the permittee is required to use the most sufficiently sensitive method to quantify the presence of a pollutant. Therefore, the permittee must select a method with a minimum level of quantification (ML) that is at or below the water quality criterion (if applicable) or the MQL, whichever is less. Please be advised that should a sufficiently sensitive method not be available, the permittee must submit supporting documentation stating this. For reporting purposes, if the most sensitive method does not sufficiently prove compliance with the more stringent of the MQL or the water quality criteria, and the analytical result is less than the MDL, "non-detect" shall be reported on the DMR. If the method does sufficiently prove compliance with the more stringent of the MQL or water quality criteria and the analytical result is less than that value, zero (0) shall be reported on the DMR.

2. Flow Measurements: Appropriate flow measurement devices and methods consistent with accepted scientific practices must be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices must be installed, calibrated, and maintained to ensure that the accuracy of the measurements is consistent with the accepted capability of

that type of device. Devices selected must be capable of measuring flows with a maximum deviation of less than 10% from true discharge rates throughout the range of expected discharge volumes. Guidance in selection, installation, calibration and operation of acceptable flow measurement devices can be obtained from the following references:

a. *A Guide to Methods and Standards for the Measurement of Water Flow*, 1975, U.S. Department of Commerce, National Bureau of Standards. This publication is available from the National Technical Information Service (NTIS), Springfield, VA 22161, telephone (800) 553-6847 and may be ordered by NTIS publication number COM-75-10683.

b. *Flow Measurement in Open Channels and Closed Conduits, Volumes 1 and 2*, U.S. Department of Commerce, National Bureau of Standards. This publication is available from the National Technical Service (NTIS), Springfield, VA, 22161, telephone (800) 553-6847 and may be ordered by NTIS publication number PB-273 535.

c. *NPDES Compliance Flow Measurement Manual*, U.S. Environmental Protection Agency, Office of Water Enforcement. This publication is available from the National Technical Information Service (NTIS), Springfield, VA 22161, telephone (800) 553-6847 and may be ordered by NTIS publication number PB-82-131178.

3. Prohibition for Tampering–Penalties:

a. 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.

b. 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.

4. Additional Monitoring by the Permittee: If the Permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136 (see LAC 33:IX.4901) or, in the case of sludge use and disposal, approved under 40 CFR Part 136 (see LAC 33:IX.4901) unless otherwise specified in 40 CFR Part 503, or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the state administrative authority.

5. Averaging of Measurements: Calculations for all limitations which require averaging of measurements must utilize an arithmetic mean unless otherwise specified by the state administrative authority in the permit.

6. Laboratory Accreditation:

   a. 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:

      i. Submitted on behalf of any facility, as defined in R.S. 30:2004;
      ii. Required as part of any permit application;
      iii. Required by order of the department;
      iv. Required to be included on any monitoring reports submitted to the department;
      v. Required to be submitted by contractor;
      vi. Otherwise required by department regulations.

   b. 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 (e.g., data reported on DMRs for prior month's sampling), the data generated will be considered invalid and in violation of the LPDES permit.

   c. 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 LDEQ → About LDEQ → LA Lab Accreditation at the following link:
      http://deq.louisiana.gov/page/la-lab-accreditation
      Questions concerning the program may be directed to (225) 219-3247.

R. **Inspection and Entry.** The permittee must allow the administrative authority or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon the presentation of credentials and other documents as may be required by law, to:

1. Enter 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 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; and

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 must 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 purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act or the Louisiana Environmental Quality Act, any substance or parameters at any location.

5. Sample Collection

   a. When the inspector announces that samples will be collected, the permittee will be given an additional thirty (30) minutes to prepare containers in order to collect duplicates. If the permittee cannot obtain and prepare sample containers within this time, he is considered to have waived his right to collect duplicate samples and the sampling will proceed immediately. Further delay on the part of the permittee in allowing initiation of the sampling will constitute a violation of this permit.

   b. At the discretion of the administrative authority, sample collection shall proceed immediately (without the additional 30 minutes described in Section R.1 above) and the inspector must supply the permittee with a duplicate sample.

6. It shall be the responsibility of the permittee to ensure that a facility representative familiar with provisions of its wastewater discharge permit, including any other conditions or limitations, be available either by phone or in person at the facility during all hours of operation. The absence of such personnel on-site who are familiar with the permit must not be grounds for delaying the initiation of an inspection except in situations as described in Section R.2 of these standard conditions. The permittee must be responsible for providing witnesses/escorts during inspections. Inspectors must abide by all company safety rules and must be equipped with standard safety equipment (hard hat, safety shoes, safety glasses) normally required by industrial facilities.

7. Upon written request, copies of field notes, drawings, etc., taken by department personnel during an inspection must be provided to the permittee after the final inspection report has been completed.

S. **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:

1. Noncompliance by the permittee with any condition of the permit;

2. The permittee's failure in the application or during the permit reissuance process to disclose fully all relevant facts, or the permittee's misrepresentation of any relevant facts at any time;

3. 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;

4. A change in any condition that requires either a temporary or a permanent reduction or elimination of any discharge;

5. Failure to pay applicable fees under the provisions of LAC 33:IX, Chapter 13; or

6. 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.

T. **Additional Monitoring by the Permittee(s).** If the permittees monitor any pollutant more frequently than required by this permit using test procedures approved under 40 CFR Part 136 (see LAC 33:IX.4901) or as specified in this permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the

Discharge Monitoring Report (DMR) form specified by LDEQ.

U. Bypass and Upset Conditions

1. Bypass of Treatment Facilities

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

   b. 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 U.1.c and U.1.d of these standard conditions.

   c. Notice

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

      ii. Unanticipated bypass. The permittee must submit notice of an unanticipated bypass as required in LAC 33:IX.2701.L.6 (24-hour notice) and Section V.C.4.e of these standard conditions.

   d. Prohibition of bypass

      i. Bypass is prohibited, and the state administrative authority may take enforcement action against a permittee for bypass, unless:
         (a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
         (b) 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,
         (c) The permittee submitted notices as required by Section U.1.c of these standard conditions.

      ii. 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 U.1.d of these standard conditions.

2. Upset Conditions

a. 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.

b. 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 Section U.2.c are met. No determination made during administrative review of claims that noncompliance was caused by an upset, and before an action for noncompliance, is final administrative action subject to judicial review.

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

i. An upset occurred and that the permittee can identify the cause(s) of the upset;
ii. The permitted facility was at the time being properly operated; and
iii. The permittee submitted notice of the upset as required by LAC 33:IX.2701.L.6.b.ii and Section V.C.4.e.ii of these standard conditions; and
iv. The permittee complied with any remedial measures required by Section VI.E of these standard conditions.

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

V. Toxic Pollutants

1. Other effluent limitations and standards under Sections 301, 302, 303, 307, 318, and 405 of the Clean Water Act. If any applicable toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Section 307(a) of the Clean Water Act for a toxic pollutant and that standard or prohibition is more stringent than any limitation on the pollutant in this permit, the state administrative authority

shall institute proceedings under these regulations to modify or revoke and reissue the permit to conform to the toxic effluent standard or prohibition.

2. The permittee must comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act within the time provided in the regulations that establish these standards or prohibitions, or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.

W. Criminal and Civil Liability

Except as provided in permit conditions on "Bypassing" and "Upsets," nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. Any false or materially misleading representation or concealment of information required to be reported by the provisions of the permit, the Act, or applicable regulations, which avoids or effectively defeats the regulatory purpose of the Permit may subject the Permittee to criminal enforcement pursuant to R.S. 30:2025.

X. Availability of Reports

All recorded information (completed 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) must 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.

PART VII. PERMIT MODIFICATION

A. **Modification of the Permit.** This permit covers an existing source with discharges to 303(d) water bodies for which TMDLs have not been completed. The permit may be reopened to incorporate the results of any TMDL allocation which may later be approved for the receiving water bodies. In addition, the permit may be reopened and modified during the life of the permit to address:

1. Changes in the state's Water Quality Management Plan, including Water Quality Standards;

2. Changes in state or federal statutes or regulations;

3. Addition of a new permittee who is the owner or operator of a portion of the MS4;

4. Changes in portions of the SWMP that are considered permit conditions; or

5. Other modifications deemed necessary by the Secretary to meet the requirements of the Act.

All modification to the permit will be made in accordance with LAC 33:IX.2903, LAC 33:IX.2905, and LAC 33:IX.3105.

B. **Termination of Coverage for a Single Permittee.** Permit coverage may be terminated, in accordance with the provisions of LAC 33:IX.2907 and LAC 33:IX.3105, for a single permittee without terminating coverage for other permittees.

C. **Modification of Storm Water Management Program(s).** Only those portions of the SWMPs specifically required as permit conditions shall be subject to the modification requirements of LAC 33:IX.3105. Addition of components, controls, or requirements by the permittee(s); replacement of an ineffective or infeasible SCM implementing a required component of the SWMP with an alternate SCM expected to achieve the goals of the original SCM; and changes required as a result of schedules contained in Part III shall be considered minor changes to the SWMP and not modifications to the permit. (See also Part II.G.)

D. **Changes in Monitoring Outfalls.** Changes in monitoring outfalls shall be considered minor modifications to the permit and will be made in accordance with the procedures at LAC 33:IX.2905.

PART VIII. DEFINITIONS

All definitions contained in Section 502 of the Act shall apply to this permit and are incorporated herein by reference. Unless otherwise specified, additional definitions of words or phrases used in this permit are as follows:

1. Accreditation means the formal recognition by the department of a laboratory's competence wherein specific tests or types of tests can be accurately and successfully performed in compliance with all minimum requirements set forth in the regulations regarding laboratory accreditation.

2. The Act or CWA means *Clean Water Act* (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972), Pub. L. 92-500, as amended Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483 and Pub. L. 97-117, 33 U.S.C. 1251 et seq.

3. Administrator means the *Administrator of the U.S. Environmental Protection Agency*, or an authorized representative.

4. Agency means the Louisiana Department of Environmental Quality (LDEQ).

5. Applicable standards and limitations means all state, interstate and federal standards and limitations to which a discharge is subject under the Clean Water Act, including effluent limitations, water quality standards of performance, toxic effluent standards or prohibitions, best management practices, and pretreatment standards under Sections 301, 302, 303, 304, 306, 307, 308, and 403.

6. Applicable water quality standards means all water quality standards to which a discharge is subject under the Clean Water Act.

7. Commercial laboratory means any laboratory, wherever located, that performs analyses or tests for third parties for a fee or other compensation and provides chemical analyses, analytical results, or other test data to the department. The term commercial laboratory does not include laboratories accredited by the Louisiana Department of Health and Hospitals in accordance with R.S. 49:1001 et seq.

8. Control measure as used in this permit, refers to any Best Management Practice (Storm Water Control Measure/SCM) or other method used to prevent or reduce the discharge of pollutants to waters of the state.

9. Co-permittee is a permittee to an LPDES permit that is responsible for permit conditions relating only to the discharge for which it is operator.

10. Core municipality means, for the purpose of this permit, the municipality whose corporate

boundary (unincorporated area for counties and parishes) defines the MS4 (for example, City of Dallas for the Dallas Municipal Separate Storm Sewer System, Harris County for unincorporated Harris County).

11. Daily discharge means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the sampling day. Daily discharge determination of concentration made using a composite sample shall be the concentration of the composite sample.

12. Daily maximum discharge limitation means the highest allowable "daily discharge."

13. Director means the U.S. Environmental Protection Agency Regional Administrator, or the state administrative authority, or an authorized representative.

14. Discharge for the purpose of this permit, unless indicated otherwise, refers to discharges from the MS4.

15. EDMS: LDEQ's Electronic Document Management System, an online electronic repository of official records that have been created or received by LDEQ.

16. Environmental Protection Agency or EPA means the U.S. Environmental Protection Agency.

17. EPCRA means the Emergency Planning and Community Right-to-Know Act.

18. Flow-weighted composite sample means a composite sample consisting of a mixture of aliquots collected at a constant time interval, where the volume of each aliquot is proportional to the flow rate of the discharge.

19. GPD shall mean *gallons per day*.

20. Grab sample means an individual sample collected in less than 15 minutes.

21. For fecal coliform bacteria, a sample consists of one effluent grab portion collected during a 24-hour period at peak loads.

22. Green infrastructure or GI generally refers to systems and practices that use or mimic natural processes to infiltrate, evapotranspire (the return of water to the atmosphere either through evaporation or by plants), or reuse storm water or runoff on the site where it is generated. Green infrastructure approaches that are currently used include green roofs; trees and tree

boxes; rain gardens; vegetated swales; pocket wetlands; infiltration planters; porous and permeable pavements; vegetated median strips; reforestation/re-vegetation; and protection and enhancement of riparian buffers and floodplains.

23. Illicit connection means any man-made conveyance connecting an illicit discharge directly to a municipal separate storm sewer.

24. Illicit discharge is any discharge to a municipal separate storm sewer that is not composed entirely of storm water except discharges pursuant to an LPDES permit (other than the LPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from firefighting activities.

25. Infeasible means not technologically possible or not economically practicable and achievable in light of best industry practices.

26. Land application unit means an area where wastes are applied onto or incorporated into the soil surface (excluding manure spreading operations) for treatment or disposal.

27. Landfill means an area of land or an excavation in which wastes are placed for permanent disposal, and which is not a land application unit, surface impoundment, injection well, or waste pile.

28. 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 Latest Decennial Census for the State of Louisiana 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 LDEQ as part of the large or medium municipal separate storm sewer system.

29. LDEQ means the *Louisiana Department of Environmental Quality.*

30. Loading is presented in the permit and reported in the DMR as the total amount of a pollutant entering the facility or discharged in the effluent. It is calculated by knowing the amount of flow, the concentration, and the density of water. Results should be rounded off and expressed with the same number of significant figures as the permit limit. If the permit does not explicitly state how many significant figures are associated with the permit limit, the permittee shall use two.

For Industrial Facilities: Loading (lbs/day) = Flow (in MGD) x Concentration (mg/L) x 8.34*

For POTWs: Loading (lbs/day) = Design Capacity Flow (in MGD) x Concentration (mg/L) x 8.34*
*8.34 is the unit conversion for the weight of water

Please note that the equations above may not be appropriate for production-based effluent guideline limitations.

31. Louisiana Pollutant Discharge Elimination System or 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.

32. MDL is an abbreviation for *method detection limit*, which is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results.

33. MEP is an abbreviation for *Maximum Extent Practicable*, the technology-based discharge standard for Municipal Separate Storm Sewer Systems 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." MEP is defined as a standard for water quality that applies to all MS4 operators regulated under the LPDES Storm Water Program. Since no precise definition of MEP exists, it allows for maximum flexibility on the part of MS4 operators as they develop, implement, and refine their program.

34. MGD shall mean *million gallons per day.*

35. mg/L shall mean *milligrams per liter* or *parts per million* (*ppm*).

36. ML means *Minimum Level of Quantification*, which is the lowest concentration of a substance in a sample that can be measured with a known level of confidence, and generally represents the lowest calibration point. For the purposes of this permit, the permittee must select a method with an ML that is at or below the water quality criterion (if applicable) or the MQL, whichever is less.35.

37. MQL means *Minimum Quantification Level* which is the lowest concentration of an analyte that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions.

38. MS4 is an abbreviation for *Municipal Separate Storm Sewer System* and is used to refer to either a Large, Medium, or Small Municipal Separate Storm Sewer System (e.g., "the Dallas MS4").

39. Monthly 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 =

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

When the permit establishes monthly average concentration effluent limitations or conditions, and the flow is not measured as a continuous record, then the monthly average concentration means the arithmetic average of all "daily discharge(s)" of concentration determined during the calendar month.

The monthly average for fecal coliform bacteria is the geometric mean of the values for all effluent samples collected during a calendar month.

40. Municipal Separate Storm Sewer System or MS4 refers to a publicly-owned conveyance or system of conveyances that discharges to waters of the U.S. and is designed or used for collecting or conveying storm water, is not a combined sewer, and is not part of a publicly-owned treatment works (POTW). (See LAC 33:IX.2511.B.8 for a complete definition.)

41. National Pollutant Discharge Elimination System or 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.

42. The term ng/L means *nanograms per liter* or *parts per trillion* (*ppt*).

43. Office means the *Office of Environmental Services* within the *Department of Environmental Quality*.

44. Operator means the operator of any facility or activity subject to regulation under the LPDES program.

45. Part "#" refers, unless otherwise indicated, to Part "#" of this permit (e.g., Part V.E.2).

46. Permittee refers to any "person," as defined at LAC 33:IX.2313, authorized by this LPDES permit to discharge to waters of the state.

47. 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.

48. Pollutants of concern or POCs include biochemical oxygen demand (BOD); sediment or a parameter that addresses sediment (such as total suspended solids (TSS), turbidity or siltation); pathogens; oil and grease (O&G); and any pollutant that has been identified as a cause of impairment in any water body to which the MS4 discharges.

49. Secretary means the Secretary of the Louisiana Department of Environmental Quality.

50. Severe property damage means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

51. Sewage sludge means any solid, semisolid, or liquid residue removed during the treatment of municipal wastewater or domestic sewage. *Sewage sludge* includes, but is not limited to, solids removed during primary, secondary, or advanced wastewater treatment, scum, domestic septage, portable toilet pumpings, Type III marine sanitation device pumpings (33 CFR Part 159), and sewage sludge products. *Sewage sludge* does not include grit or screenings, or ash generated during the incineration of sewage sludge.

52. The term SPCC means *Spill Prevention Control and Countermeasures Plan.* Plan covering the release of pollutants as defined in 40 CFR Part 112.

53. Storm sewer, unless otherwise indicated, refers to a municipal separate storm sewer.

54. Storm water means storm water runoff, snow melt runoff, and surface runoff and drainage. This includes any soluble or suspended material mobilized by naturally occurring precipitation events.

55. Storm water control measures or SCMs 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 state. SCMs also include treatment requirements, operating procedures, and practices to control facility site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

56. Storm Water Discharge Associated with Industrial Activity is defined at LAC

33:IX.2511.B.14.

57. Storm Water Management Program or SWMP refers to a comprehensive program to manage the quality of storm water discharged from the municipal separate storm sewer system. For the purposes of this permit, the SWMP is considered a single document, but may actually consist of separate programs (e.g., "chapters") for each permittee.

58. 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 a part of a treatment system allowed by state law, regulation, or permit.

59. SWMP is an acronym for *Storm Water Management Program.*

60. Time-weighted composite means a composite sample consisting of a mixture of equal volume aliquots collected at a constant time interval.

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

62. Type 1 facilities are municipal landfills; hazardous waste treatment, disposal and recovery facilities; facilities that are subject to EPCRA Title III, Section 313; and industrial facilities the permittee(s) determine are contributing a substantial pollutant loading to the Municipal Separate Storm Sewer System.

63. Type 2 facilities are other municipal wastes treatment, storage, or disposal facilities (e.g., POTWs, transfer stations, incinerators); and industrial or commercial facilities the permittee(s) believe are contributing pollutants to the Municipal Separate Storm Sewer System.

64. Visible sheen is defined as a silvery or metallic sheen, gloss, or increased reflectivity; visual color; or iridescence on the water surface.

65. Wasteload allocation or 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 (LAC 33:IX.107)

66. Wastewater is defined as liquid waste resulting from commercial, municipal, private, or industrial processes. Wastewater includes, but is not limited to, cooling and condensing waters, sanitary sewage, industrial waste, and contaminated rainwater runoff.

67. Water quality standard means a definite numerical criterion value or general criterion

statement or policy statement promulgated by the administrative authority to enhance or maintain water quality and to provide for, and fully protect, the designated uses of the waters of the state.

68. Waters of the state: For the purposes of the LPDES, all surface waters within the state of Louisiana and, on the coastline of Louisiana and the Gulf of Mexico, and all surface waters extending there from 3 miles into the Gulf of Mexico (LAC 33:IX.2313.A.) are "waters of the state." For purposes of the LPDES, this includes all surface waters which 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 waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the Clean Water Act, 33 U.S.C. 1251, et seq.

69. The term µg/L means *micrograms per liter* or *parts per billion* (*ppb*).

ADDENDUM A

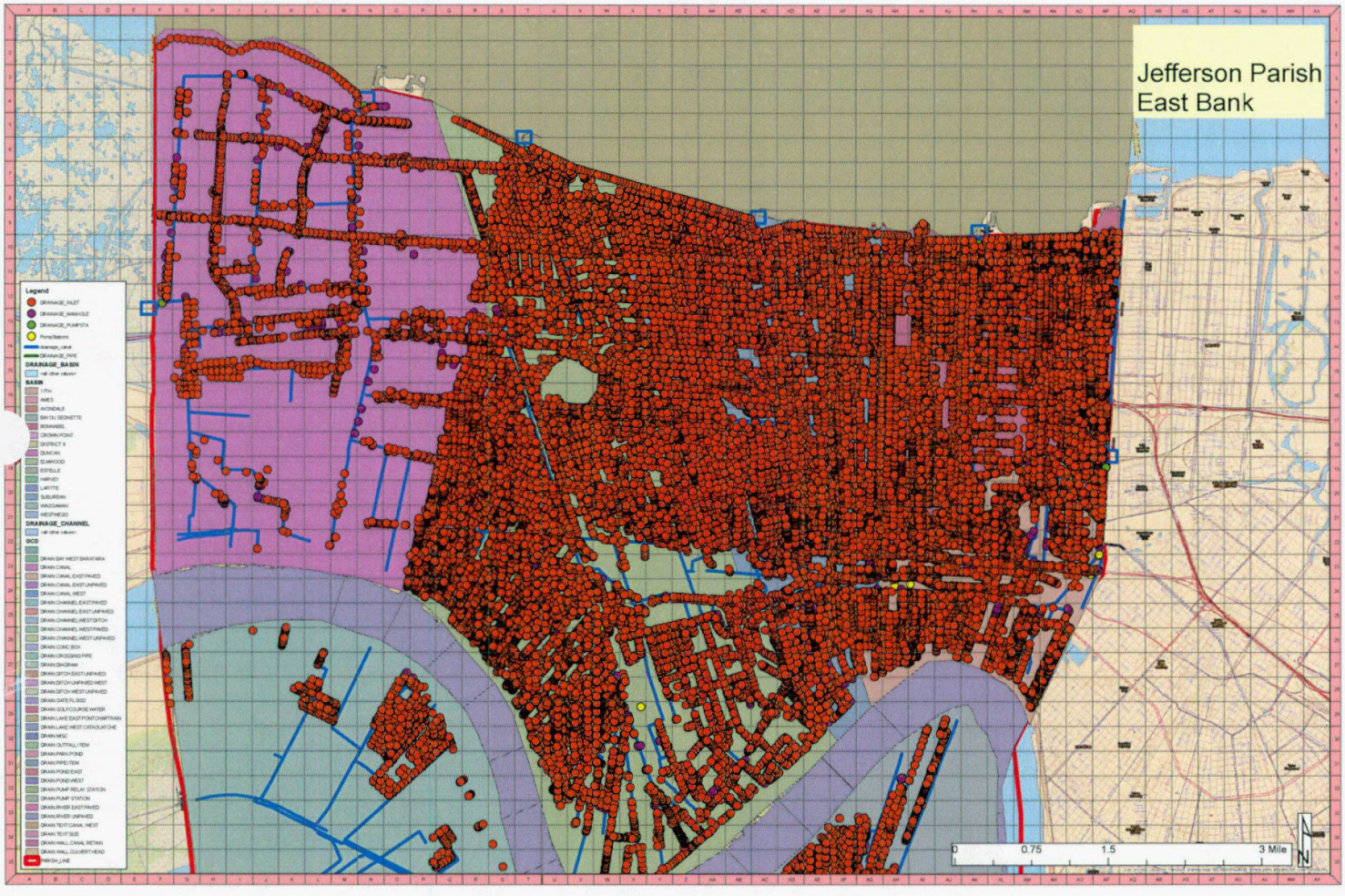
Storm Water Management Plans
Jefferson Parish Co-permittees

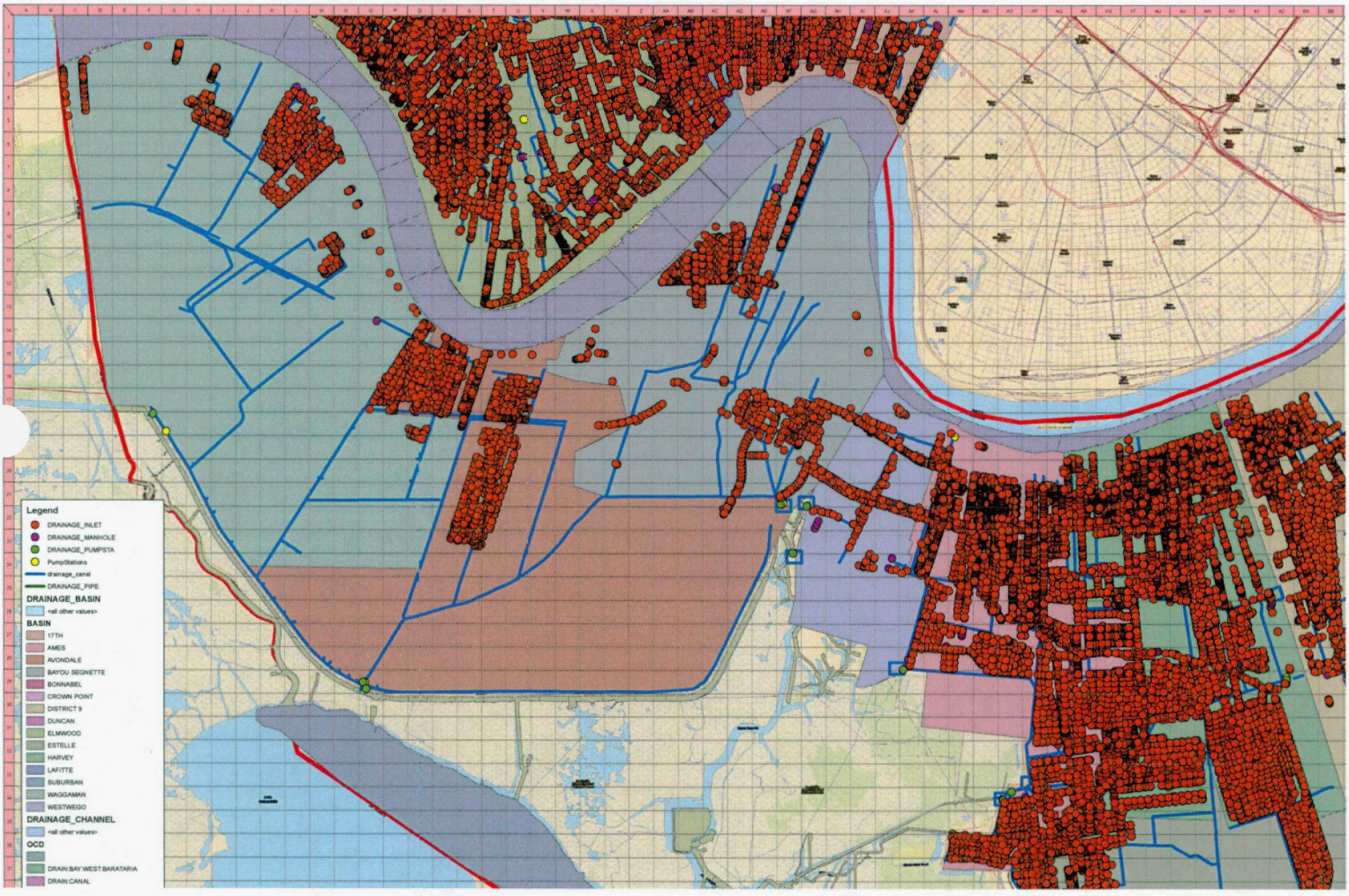
Storm Water Management Plans
Jefferson Parish Co-permittees

1. Jefferson Parish
   http://edms.deq.louisiana.gov/app/doc/view.aspx?doc=10265696&ob=yes&child=yes
2. Gretna
   http://edms.deq.louisiana.gov/app/doc/view.aspx?doc=10265373&ob=yes&child=yes
3. Harahan
   http://edms.deq.louisiana.gov/app/doc/view.aspx?doc=10371635&ob=yes&child=yes
4. Kenner
   http://edms.deq.louisiana.gov/app/doc/view.aspx?doc=10265375&ob=yes&child=yes
5. Westwego
   http://edms.deq.louisiana.gov/app/doc/view.aspx?doc=10371714&ob=yes&child=yes
6. LDOTD
   http://edms.deq.louisiana.gov/app/doc/view.aspx?doc=10371637&ob=yes&child=yes

APPENDIX E: MAPS

1. Jefferson Parish Storm Sewer System – East Bank
2. Jefferson Parish Storm Sewer System – West Bank Section 1
3. Jefferson Parish Storm Sewer System – West Bank Section 2
4. East Bank Representative Sampling Sites
5. West Bank Representative Sampling Sites
6. Lake Pontchartrain Drainage Canals (Subsegment 041302) Delineation Map
7. Sauls, Avondale and Main Canals (Subsegment 020501) Delineation Map


Jefferson Parish
East Bank
Legend
0
0.75
1.5
3 Mile
N


Legend
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DRAINAGE_MANHOLE
DRAINAGE_PUMPSTA
PumpStations
drainage_canal
DRAINAGE_PIPE
DRAINAGE_BASIN
<all other values>
BASIN
17TH
AMES
AVONDALE
BAYOU SEGNETTE
BONNABEL
CROWN POINT
DISTRICT 9
DUNCAN
ELMWOOD
ESTELLE
HARVEY
LAFITTE
SUBURBAN
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WESTWEGO
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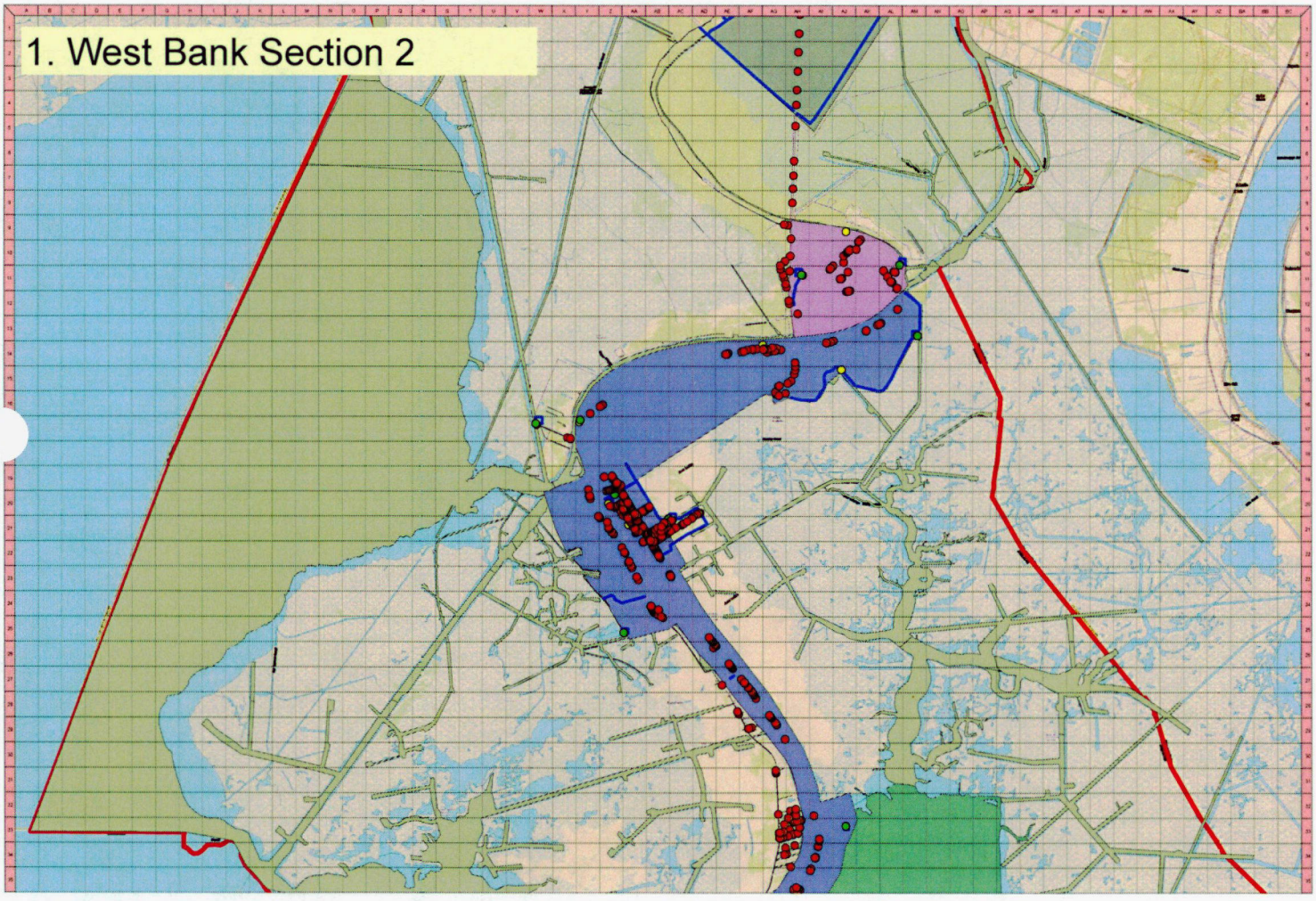
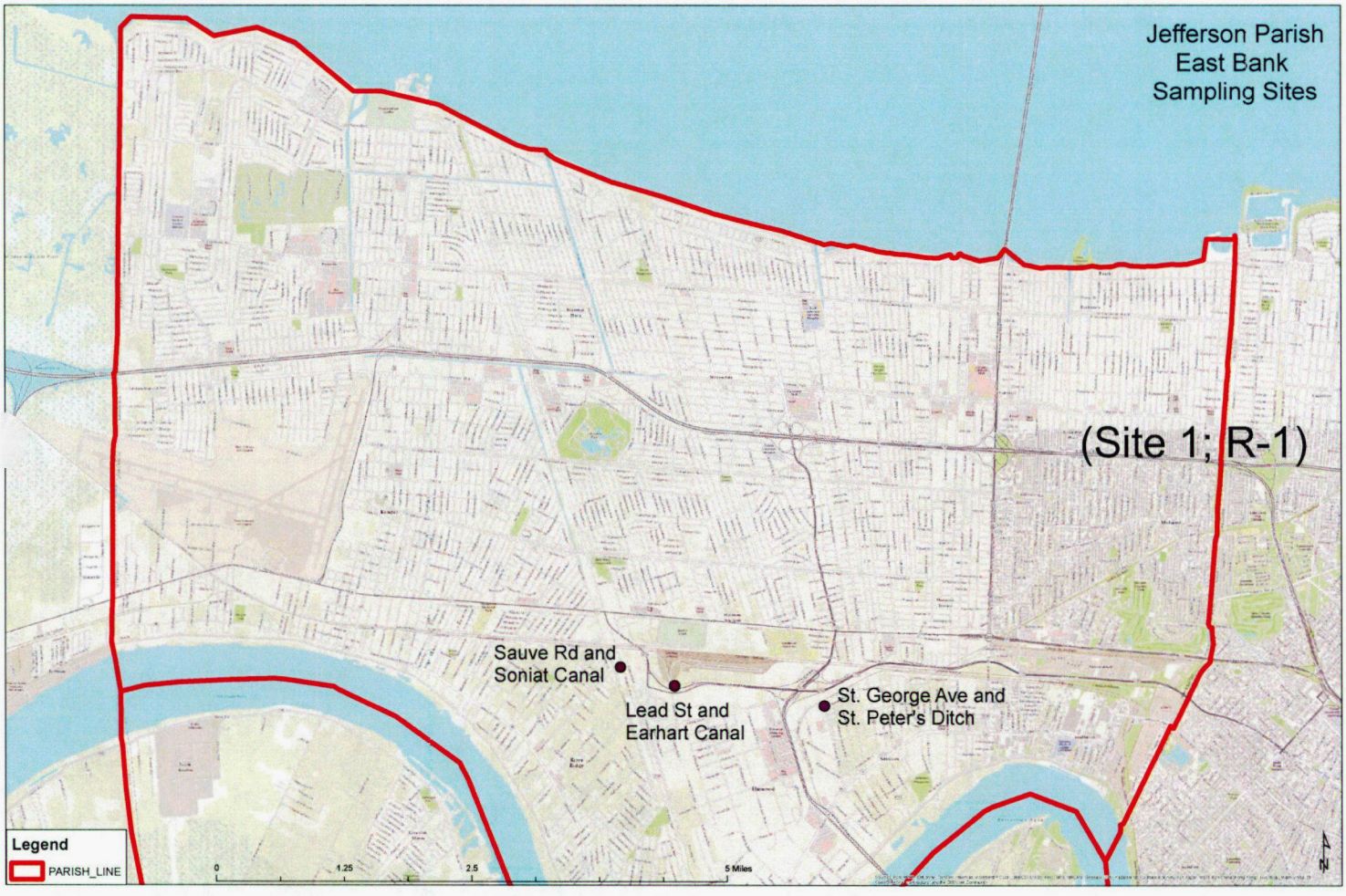
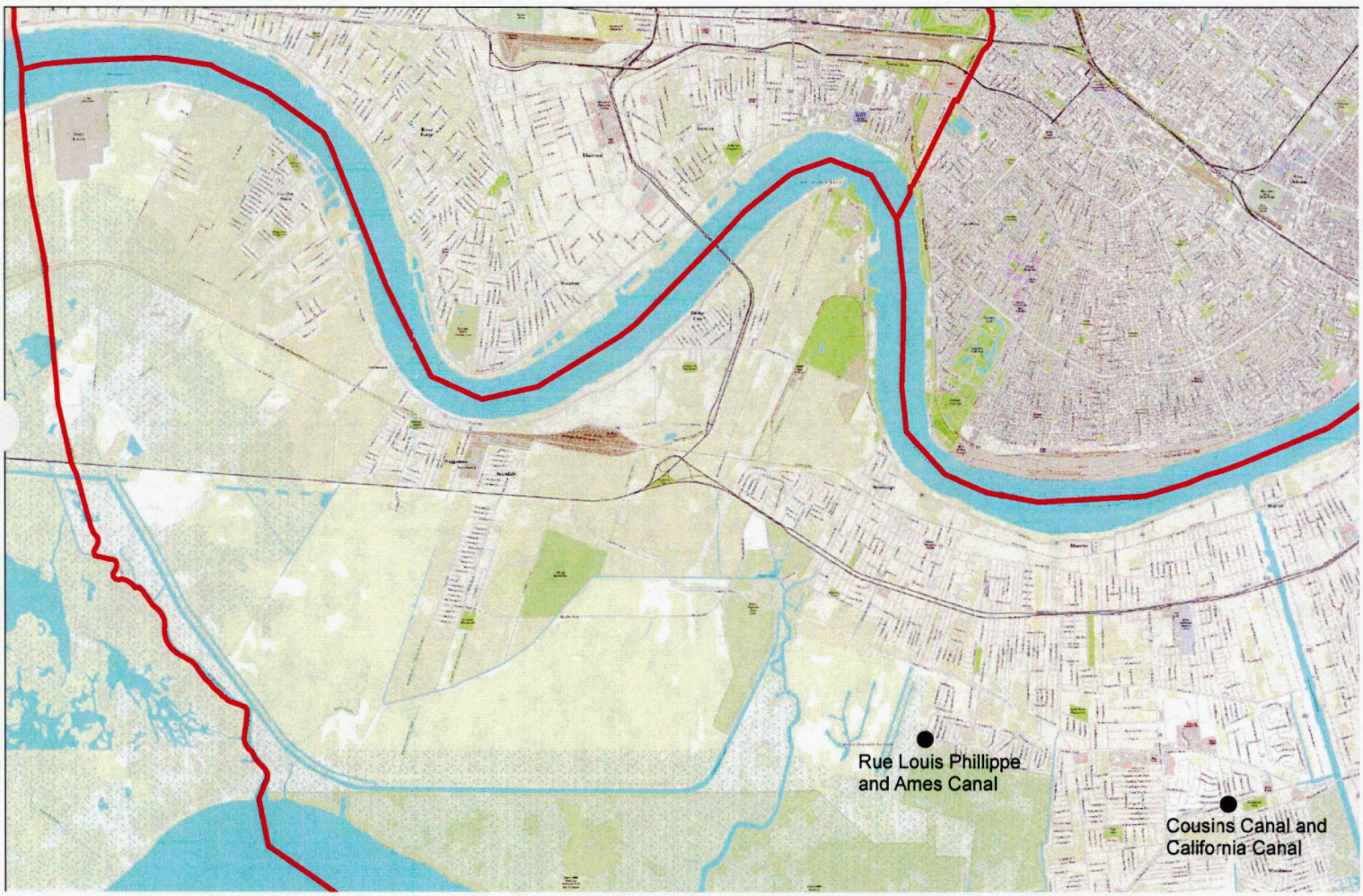
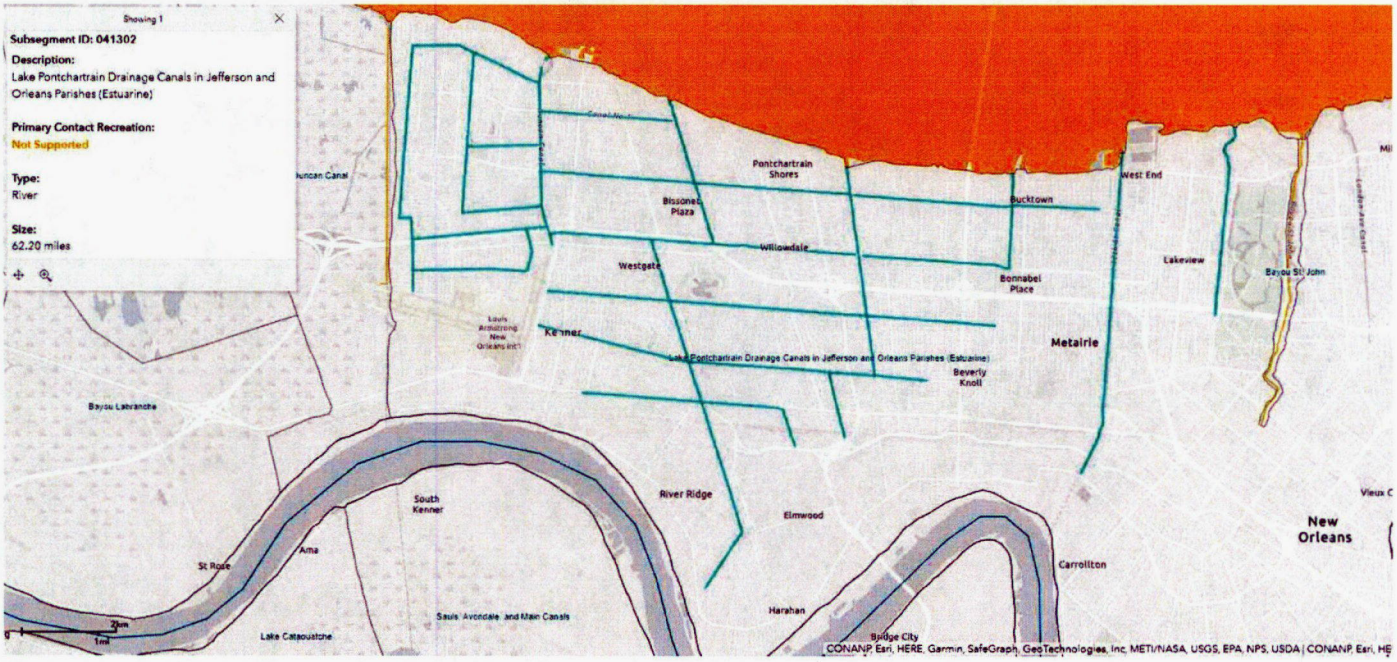
DRAIN:CANAL


1. West Bank Section 2

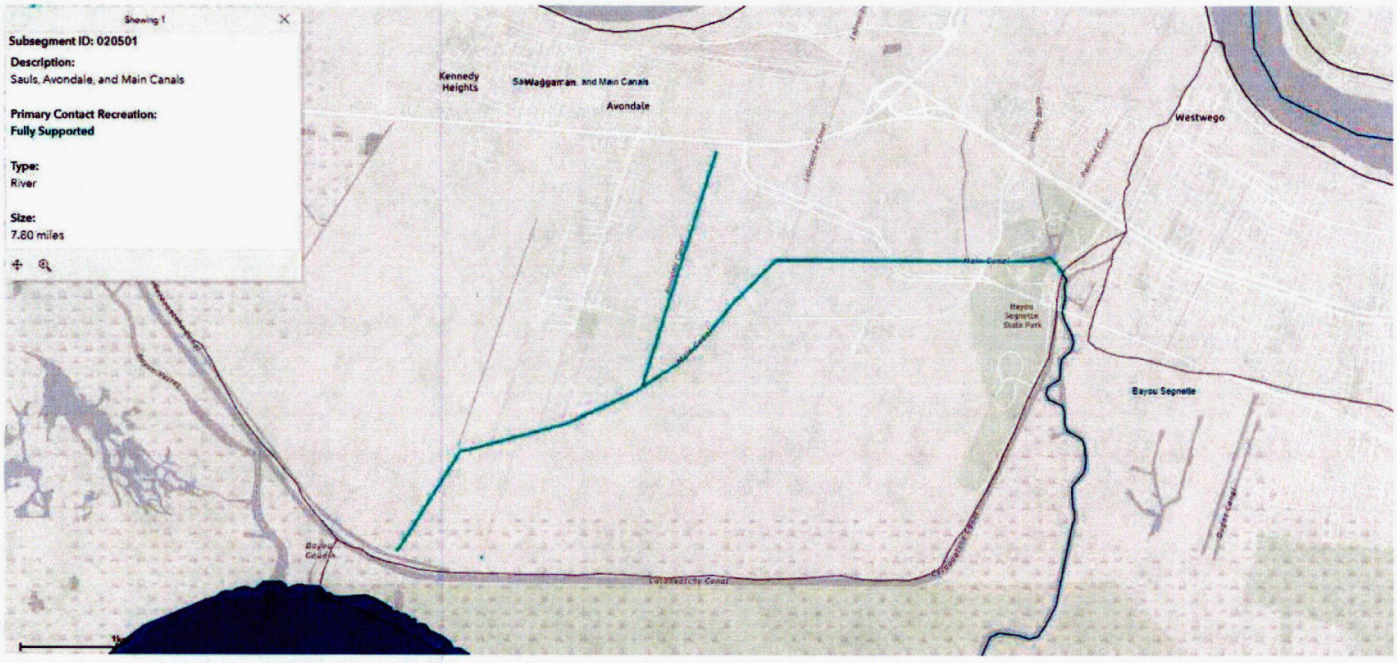

Jefferson Parish
East Bank
Sampling Sites
(Site 1; R-1)
Sauve Rd and
Soniat Canal
Lead St and
Earhart Canal
St. George Ave and
St. Peter's Ditch
Legend
PARISH_LINE
0
1.25
2.5
5 Miles


Rue Louis Phillippe
and Ames Canal
Cousins Canal and
California Canal

LAKE PONTCHARTRAIN DRAINAGE CANALS (SUBSEGMENT 041302) DELINEATION MAP



SAULS, AVONDALE, AND MAIN CANALS (SUBSEGMENT 020501) DELINEATION MAP



Section 2
Definitions

The requirements of this report as established by the USEPA and stated in the MS4 permit need to be evaluated by its component sections. These component sections are as follows:

- *"existing flood control devices"*
- *"retrofitting"*
- *"feasibility"*

2.1 EXISTING FLOOD CONTROL DEVICES

For the purposes of this feasibility report, existing flood control devices are defined as City owned drainage pipes and catch basins. These devices may affect the receiving waters of the MS4 and therefore should be assessed for potential retrofit in order to benefit water quality. The levee system surrounding the City serves as flood control from potential storm surges from the Mississippi River, and the Barataria Basin. The levee system has no direct impact on the quality of storm water and is, therefore, not assessed for potential retrofit.

2.2 RETROFITTING

Retrofitting is defined as the changes made to the existing flood control devices within the City limits. The potential retrofits discussed in this report are evaluated to determine if the impacts on storm water quality are beneficial, their applicability, and if they merit further investigation. Potential retrofits to the existing flood control devices to benefit storm water quality include filtration and hydrodynamic devices.

2.3 FEASIBILITY

Each potential retrofit was evaluated for feasibility of installation within the City, based on the following criteria: the treatability for the pollutants of concern, the potential to be located in the City, and the economic feasibility (including construction costs and operational and maintenance costs). The feasibility also addresses whether the retrofits would impede flood waters. Retrofits that are not feasible in the City were not considered for further study and investigation. Retrofits feasible within the City will require further study beyond this report prior to installation or implementation.

Louisiana Department of Transportation and Development
Jefferson Parish Storm Water Management Program

Section 1.7.1 Structural Control and Stormwater Collection System Operation

LADOD has minimal structural controls in Jefferson Parish. The LA 3152 / LA 3139 interchange (Clearview/Earhart) detention ponds (8) and earthen swales are designed to collect and store up to 19 million gallons of runoff from a storm event, and provide relief from the chronic flooding in the Elmwood Business and Industrial Park. A detention basin exists at the LA 3139 / LA 3046 interchange (Earhart/Causeway), serving as a temporary installation until the Corps of Engineers completes the 17th Street Canal project.

Section 1.7.2 Bridge Maintenance Activities

The Pollution Prevention / Good Housekeeping minimum measure consists of Best Management Practices (BMP's) that focus on training and on the prevention or reduction of pollutant runoff from municipal operations.

Best Management Practices:

A. Bridge Sweeping

Sweeping of bridges in order to reduce the amount of sediment and associated pollutants discharged to the MS4 from roadways.

1) Identify the type of bridges that can be swept to remove sediment and other pollutants from the gutters, i.e. roadways with curb and gutter design.

2) Schedule and implement street sweeping of identified curbings.

3) Maintain records of distance swept using curb or lane miles, and the resulting quantity of material removed in volume or weight.

4) Determine average quantity of material removed per distance unit using curb or lane miles, and determine if adjustments in the street sweeping schedule could provide optimized pollutant removal.

5) Adjust sweeping schedules according to program assessment on an annual basis.

6) Annually report on the distance swept and quantity of materials removed from roadways included in the program.

Implementation Schedule:

Task	Implementation Date	Once Per	Task Type
1		Permit Term	Develop
2		Monthly	Implement
3		Monthly	Implement
4		Monthly	Implement
5		Annually	Evaluate
6		Annually	Report

Measurable Goals:

Goal: Identify the type of bridges that can be swept to remove sediment and other pollutants from the gutters.
Year:

Goal: Implement sweeping in accordance with the identified schedule.
Year:

Goal: Determine average quantity of material removed per distance unit using curb or lane miles.
Year:

Goal: Based on average quantities per distance calculations, determine target values based on factors such as equipment specifications, manufacturer's recommendations, and street sweeping budget constraints (Data analysis).
Year:

Section 1.7.3 Roadway System Activities

The Pollution Prevention / Good Housekeeping minimum measure consists of Best Management Practices (BMP's) that focus on training and on the prevention or reduction of pollutant runoff from municipal operations.

Best Management Practices:

A. Street Sweeping

Sweeping of streets and roadways in order to reduce the amount of sediment and associated pollutants discharged to the MS4 from roadways.

1) Identify the type of roadways that can be swept to remove sediment and other pollutants from the gutters, i.e. roadways with curb and gutter design.

2) Schedule and implement street sweeping of identified roadways.

3) Maintain records of distance swept using curb or lane miles, and the resulting quantity of material removed in volume or weight.

4) Determine average quantity of material removed per distance unit using curb or lane miles, and determine if adjustments in the street sweeping schedule could provide optimized pollutant removal.

5) Adjust sweeping schedules according to program assessment on an annual basis.

6) Annually report on the distance swept and quantity of materials removed from roadways included in the program.

Implementation Schedule:

Task	Implementation Date	Once Per	Task Type
1		Permit Term	Develop
2		Monthly	Implement
3		Monthly	Implement
4		Monthly	Implement
5		Annually	Evaluate
6		Annually	Report

Measurable Goals:

Goal: Identify the type of roadways that can be swept to remove sediment and other pollutants from the gutters.
Year:

Goal: Implement street sweeping in accordance with the identified schedule.
Year:

Goal: Determine average quantity of material removed per distance unit using curb or lane miles.
Year:

Goal: Based on average quantities per distance calculations, determine target values based on factors such as equipment specifications, manufacturer's recommendations, and street sweeping budget constraints (Data analysis).
Year:

B. Litter Collection

Evaluate and conduct litter collection in order to reduce the discharge of floatable materials to receiving streams.

1) Develop an inventory of litter collection areas and existing programs.

2) Evaluate the existing litter collection schedule based on an assessment of the inventory of litter collection areas.

3) Collect litter according to the developed schedule.

4) Maintain records of the quantity of litter collected for each defined area, e.g. cubic yards or tons.

5) Determine the average quantity of litter collected per area or distance measurement unit.

6) Maintain records of the quantity of litter collected from LaDOTD collection areas.

7) Annually report on the quantity of litter collected from LaDOTD collection areas.

Implementation Schedule:

Task	Implementation Date	Once Per	Task Type
1		Permit Term	Develop
2		Permit Term	Schedule
3		Annually	Implement
4		Annually	Record
5		Annually	Implement
6		Annually	Record
7		Annually	Report

Measurable Goals:

Goal: Develop an inventory of litter collection areas .
Year:

Goal: Continued implementation of the litter collection program based on the preliminary collection schedule.
Year:

Goal: Evaluate litter collection schedules.
Year:

Goal: Annually review litter collection schedules and maintain records of litter collection volumes.
Year:

1.7.5 Herbicide Application

Train herbicide application employees on the proper use of herbicide products. The Louisiana Department of Agriculture certifies and licenses all DOTD herbicide applicators and their supervisors.

1) Develop an inventory of areas designated for herbicide application including the following:- Area of application- Type of herbicide applied- Purpose of application

2) Develop a preliminary herbicide application schedule.

3) Comply with local, state, and federal regulations associated with herbicide application, e.g. licensing regulations.

4) Track the volume and type of herbicide applied at each location.

5) Assess opportunities to implement alternative practices for non-herbicide methods of maintenance.

6) Annually report on the total volume of herbicide applied.

Implementation Schedule:

Task	Implementation Date	Once Per	Task Type
1		Permit Term	Develop
2		Permit Term	Develop
3		Monthly	Implement
4		Monthly	Implement
5		Permit Term	Develop
6		Annually	Report

Measurable Goals:

Goal: Develop an inventory of areas designated for herbicide application.
Year:

Goal: Comply with local, state, and federal regulations associated with herbicide application.
Year:

Goal: Assess each location for opportunities to implement alternative practices for non-herbicide methods of maintenance.
Year:

1.7.6 Illicit Discharge

A. Employee Training

Educate LaDOTD personnel on the identification of illicit discharges and procedures for reporting observations to outfall inspection personnel.

1) Develop a list of personnel to be educated on the identification and reporting of illicit discharges.

2) Develop training materials, internal reporting forms, and reporting procedures including who will receive reports on illicit discharges.

3) Develop a schedule for conducting training of identified personnel.

4) Conduct training of personnel according to the schedule.

5) Annually report on the personnel training program in terms of the number of training sessions conducted and employee attendance. Include a narrative of the educational activities conducted.

6) Review the employee training program once per permit term in order to evaluate employee competence on the identification and reporting of illicit discharges

Implementation Schedule:

Task	Implementation Date	Once Per	Task Type
1		Permit Term	Develop
2		Permit Term	Develop
3		Permit Term	Schedule
4		Annually	Implement
5		Annually	Report
6		Permit Term	Evaluate

Measurable Goals:

Goal: Develop a list of personnel to be educated on the identification and reporting of illicit discharges.

Year:

Goal: Develop training materials, internal reporting forms, and reporting procedures including who will receive reports on illicit discharges.
Year:

Goal: Develop a schedule for conducting training of identified personnel.
Year:

Goal: Conduct training for identified personnel in accordance with the identified schedule.
Year:

Goal: Conduct training for any new personnel that may be involved with the identification and reporting of illicit discharges.
Year:

B. Illegal Dumping

Identify and investigate illegal dumping locations owned by the LaDOTD in order to determine the source of materials and report identified illegal dumpers to the appropriate local agency with legal authority.

1) Conduct an initial inspection of the MS4 jurisdiction in order to identify existing illegal dumping locations.

2) Develop a list of illegal dumping locations identified.

3) Conduct investigations of illegally dumped material in order to attempt to identify the sources of the materials.

4) Post signs at illegal dumping locations that indicate the prohibitions associated with illegal dumping.

5) Report identified illegal dumpers to the appropriate local agency with legal authority to issue enforcement actions.

6) Annually report on the number of illegal dumping locations identified and the number of identified individuals reported under this program.

Implementation Schedule:

Task	Implementation Date	Once Per	Task Type
1		Permit Term	Implement
2		Permit Term	Develop
3		Daily	Implement
4		Permit Term	Implement
5		Annually	Implement
6		Annually	Report

Measurable Goals:

Goal: Develop a list of illegal dumping locations identified.
Year:

Goal: Conduct investigations of illegally in order to attempt to identify the sources of the materials.
Year:

Goal: Post signs at illegal dumping locations that indicate the prohibitions associated with illegal dumping.
Year:

Goal: Use existing local legal authority or other means to assess enforcement actions against identified illegal dumpers.
Year:

1.7.7 Spill Prevention Plans

Comply with federal Spill Prevention Control and Counter measures (SPCC) plan regulations, and review spill response procedures to ensure storm water quality protection measures are considered during spill response.

1) Evaluate each LaDOTD owned facility and determine if Spill Prevention Control and Countermeasures plans (SPCC) are required.

2) Develop and/or maintain SPCC plans for LaDOTD owned facilities that require plans.

3) Comply with SPCC plan requirements at qualifying LaDOTD owned facilities, including consideration of the following:- Conduct employee training- Maintain spill prevention equipment- Maintain SPCC records- Update and re-certify the SPCC plan according to SPCC regulations

4) Annually report on the number of facilities with SPCC plans and the current status of each SPCC plan.

Implementation Schedule:

Task	Implementation Date	Once Per	Task Type
1		Permit Term	Develop
2		Permit Term	Develop
3		Permit Term	Implement
4		Annually	Report

Measurable Goals:

Goal: Develop an inventory of LaDOTD owned facilities that may be required to have Spill Prevention Control and Countermeasures Plans (SPCC Plans).
Year:

Goal: Evaluate identified facilities and determine if SPCC Plans are required.
Year:

Goal: Develop and/or maintain SPCC Plans for LaDOTD owned facilities that require plans.
Year:

Goal: Comply with SPCC plan requirements at qualifying LaDOTD owned facilities.
Year:

Section 1.7.9 Construction Site Runoff

The Construction Site Runoff minimum measure consists of Best Management Practices (BMP's) that focus on the reduction of pollutants in any storm water runoff to the 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 will be considered if it is part of a larger common plan of development or sale that would disturb one acre or more.

Best Management Practices:

A. Construction Inspection Procedures

Develop inspection procedures and educate the LaDOTD construction community on LaDOTD storm water guidelines related to construction activities

1) Review, evaluate and revise LaDOTD construction storm water guidelines to be consistent with EPA construction erosion control specifications.

2) Develop a list of items to incorporate in the inspection of construction sites based on the final construction storm water guidelines including the following categories:- Use of temporary erosion controls- Control of other construction related wastes- Operational and general prohibitions- Site closure and stabilization requirements- On-site documentation and records- Corrective actions and on-site communication issues

3) Develop draft construction inspection forms and procedures necessary to inspect LaDOTD construction sites in order to ensure compliance with the LaDOTD construction storm water guidelines.

4) Develop procedures to enforce LaDOTD guidelines utilizing construction contract language.

5) Provide construction inspection forms and procedures to the SWMP Committee for review.

6) Develop the final version of the construction inspection forms and procedures.

Implementation Schedule:

Task	Implementation Date	Once Per	Task Type
1		Permit Term	Develop
2		Permit Term	Develop
3		Permit Term	Develop
4		Permit Term	Develop
5		Permit Term	Implement
6		Permit Term	Implement

Measurable Goals:

Goal: Develop final LaDOTD construction storm water guidelines consistent with the EPA construction erosion control specifications.
Year:

Goal: Develop a list of items to incorporate in the inspection of LaDOTD construction sites based on the final LaDOTD construction storm water guidelines.
Year:

Goal: Develop draft inspection forms and procedures necessary to inspect LaDOTD construction sites in order to ensure compliance with LaDOTD construction storm water guidelines.
Year:

Goal: Provide the SWMP Committee with an opportunity to review and comment on draft inspection documents and procedures.
Year:

Goal: Develop the final version of the construction inspection forms and procedures.
Year:

Responsible Party: Design, Construction

B. Construction Plans Review

Implement a construction plans review process that focuses on compliance with LaDOTD construction storm water guidelines.

1) Develop procedures to require contractors to develop and submit project/site-specific erosion control plans, including a spill control plan, if applicable.

2) Develop internal tracking and plan review procedures to address the following issues:- Conformance to final storm water guidelines- Appropriate use of temporary erosion controls- Inclusion of any required local, state, and/or federal storm water permit documents.

3) Provide plans review procedures to the SWMP Committee for review.

4) Implement the construction site erosion control plans review procedures for LaDOTD construction sites.

5) Maintain records of plans reviewed and approved for construction under this program.

6) Annually report on the number of plans approved under the plans review program.

Implementation Schedule:

Task	Implementation Date	Once Per	Task Type
1		Permit Term	Develop
2		Permit Term	Develop
3		Permit Term	Implement
4		Monthly	Implement
5		Permit Term	Record
6		Annually	Report

Measurable Goals:

Goal: Develop procedures to require contractors to develop and submit project/site-specific erosion control plans, including a spill control plan, if applicable..
Year:

Goal: Develop internal tracking and plan review procedures.
Year:

Goal: Provide the SWMP Committee with an opportunity to review and comment on plans review procedures.
Year:

Goal: Implement the construction plans review procedures for LaDOTD construction sites.
Year:

C. Construction Site Inspection

Conduct inspections of LaDOTD construction sites that discharge storm water to the MS4 to determine compliance with LaDOTD construction storm water guidelines.

1) Develop internal procedures for tracking new and on-going construction activities.

2) Train LaDOTD inspection personnel on LaDOTD construction storm water guidelines and inspection procedures.

3) Inspect qualifying construction sites using appropriate inspection procedures and forms to ensure compliance with LaDOTD construction storm water guidelines.

4) Require contractors to perform corrective actions at LaDOTD construction sites that are not in compliance with LaDOTD construction storm water guidelines and/or construction contract language.

5) Maintain records of construction site inspections and corrective actions performed under this program.

6) Annually report on the number of construction site storm water permit inspections under this program.

Implementation Schedule:

Task	Implementation Date	Once Per	Task Type
1		Permit Term	Develop
2		Annually	Implement
3		Monthly	Implement
4		Monthly	Implement
5		Monthly	Record
6		Annually	Report

Measurable Goals:

Goal: Develop internal procedures for tracking new and on-going construction activities.
Year:

Goal: Train LaDOTD inspection personnel on the LaDOTD construction storm water guidelines and inspection procedures.
Year:

Goal: Inspect qualifying construction sites using appropriate inspection procedures and forms to ensure compliance with LaDOTD construction storm water guidelines.
Year:

Goal: Require contractors to perform corrective actions at LaDOTD construction sites that are not

in compliance with LaDOTD construction storm water guidelines.
Year:

D. Construction Community Education

Development and distribution of educational materials that focus on LaDOTD construction storm water guidelines, and plan review and site inspection procedures that affect the LaDOTD construction community.

1) Develop or acquire educational materials (LaDOTD construction and erosion control guidelines) for informing the LaDOTD construction community (contractors, developers, engineers, architects) about LaDOTD construction policies.

2) Develop and maintain a contact list of individuals included in the LaDOTD construction community.

3) Distribute educational materials to the LaDOTD construction community.

4) Annually review educational materials to incorporate program changes and to ensure clarity and consistency with LaDOTD construction storm water practices.

5) Distribute / redistribute educational materials on the LaDOTD construction storm water guidance as the program changes.

6) Maintain records of the number of educational materials distributed on an annual basis.

7) Annually report on number of educational materials distributed and identity of any changes made to the LaDOTD construction storm water guidance

Implementation Schedule:

Task	Implementation Date	Once Per	Task Type
1		Permit Term	Develop
2		Annually	Implement
3		Annually	Implement
4		Annually	Implement
5		Annually	Implement
6		Annually	Implement
7		Annually	Report

Measurable Goals:

Goal: Develop educational materials designed to inform the LaDOTD construction community on applicable LaDOTD construction storm water guidelines.
Year:

Goal: Distribute educational materials to contractors that require LaDOTD approved construction erosion control plans as determined in the plans review process..
Year:

Goal: Distribute or redistribute educational materials on the LaDOTD construction storm water guidelines as the LaDOTD program changes.
Year:

Section 1.7.10 Public Education and Outreach

The Public Education and Outreach minimum measure consists of Best Management Practices (BMPs) that focus on the development and distribution of educational materials designed to inform the public about the impacts that storm water discharges have on local water bodies and the steps that the public can take to reduce pollutants in storm water runoff.

A. Storm Water Quality Web-Site

Development and maintenance of a website designed to educate the public on storm water quality issues.

1) Develop a list of subjects for inclusion and discussion in the website based on consideration of the following subjects:- Mechanisms for citizen reporting under the illicit discharge and construction programs (LaDOTD web-site and phone numbers for reporting illicit discharges, construction related water quality issues, spills, dumping and illegal disposals and other potential storm water quality problems)- Water quality impacts of storm water runoff to local water bodies- Steps the public can take to reduce storm water pollution- Public involvement programs (Adopt-A-Highway overview and contact information and SWMP Committee contact information)

2) Design and publish the website to the internet for public access.

3) Develop a website maintenance schedule that is consistent with the implementation schedule of other BMP's included in this SWMP.

4) Post new information to the website in accordance with the identified schedule.

5) Maintain records of website traffic using a sign-in log or hit counter.

6) Annually report on website traffic under this program.

Implementation Schedule:

Task	Implementation Date	Once Per	Task Type
1	03/10/2004	Permit Term	Develop
2	03/10/2005	Permit Term	Implement
3	03/10/2004	Permit Term	Develop
4	03/10/2005	Permit Term	Implement
5	03/10/2005	Annually	Record
6	03/10/2004	Annually	Report

Measurable Goals:

Goal: Develop a list of subjects for inclusion and discussion in the storm water quality website.
Year: 1

Goal: Design and publish the storm water quality website to the internet for public access.
Year: 2

B. Public Service Announcements

Development and broadcasting of public service announcements (PSA's) that focus on the impacts of storm water runoff on local water bodies and steps the public can take to reduce storm water pollution.- Anti-litter Campaigns- General Storm Water Quality Issues

1) Develop a list of storm water issues based on BMP's selected in the SWMP.

2) Identify issues to be included in the PSA's.

3) Develop PSA's on the selected subjects.

4) Contact local television and radio media for information on broadcasting of PSA's.

5) Broadcast PSA's as local media and radio schedules permit.

6) Maintain records of the types of PSA's under this program.

7) Annually report on the types of PSA's under this program.

Implementation Schedule:

Task	Implementation Date	Once Per	Task Type
1		Permit Term	Develop
2		Permit Term	Develop
3		Permit Term	Develop
4		Permit Term	Develop
5		Annually	Implement
6		Monthly	Record
7		Annually	Report

Measurable Goals:

Goal: Identify appropriate issues to be included in the public service announcements.
Year:

Goal: Develop public service announcements on the selected subjects.
Year:

Goal: Broadcast public service announcements as local media and radio schedules permit.
Year:

Best Management Practices:

C. Flyers and Brochures

Development of flyers and brochures for the purpose of educating the public on storm water quality issues.

1) Develop a list of subjects for inclusion and discussion in the flyers and brochures based on the consideration of the following subjects:- Mechanisms for citizen reporting under the illicit discharge and construction programs (LaDOTD web-site and phone numbers for reporting illicit discharges, construction related water quality issues, spills, dumping and illegal disposals and

other potential storm water quality problems)- Water quality impacts of storm water runoff to local water bodies- Steps the public can take to reduce storm water pollution- Public involvement programs (Adopt-A-Highway overview and contact information and SWMP Committee contact information)

2) Design and print flyers and brochures for the selected subjects.

3) Develop a list of appropriate locations for flyer and brochures postings (e.g. Rest Areas, Travel Information Centers, and DOTD Offices)

4) Develop a flyer and brochure posting schedule that is consistent with the implementation schedule of other BMP's included in the SWMP.

5) Post materials at selected locations in accordance with the identified schedule.

6) Maintain records of the quantity of materials posted under this program.

7) Annually report on the number of selected locations and quantities of materials posted under this program.

Implementation Schedule:

Task	Implementation Date	Once Per	Task Type
1		Permit Term	Develop
2		Permit Term	Develop
3		Permit Term	Develop
4		Permit Term	Schedule
5		Annually	Implement
6		Annually	Record
7		Annually	Report

Measurable Goals:

Goal: Develop a list of subjects for inclusion and discussion in storm water flyers.
Year:

Goal: Design and print flyers for each of the selected subjects.
Year:

Goal: Post flyers at selected locations in accordance with the flyer posting schedule.
Year:

D. Impacts of Illegal Dumping and Littering

Development and distribution of public education materials that focus on the impacts of illegal dumping and littering on local water bodies as well as methods for the public to report illegal dumping and/or litter occurrences and locations of incidents.

1) Develop and incorporate illegal dumping and anti-litter public education materials into the list of subjects to be included in brochures and flyers and the storm water quality web-site.

2) Distribute public education materials that describe the negative impacts of illegal dumping and litter on local water bodies.

3) Update public education materials as necessary.

4) Maintain records of the number and type of public education materials distributed that focus on the impacts of illegal dumping and litter.

5) Annually report on the number and type of public education materials distributed that focus on the impacts of illegal dumping and litter.

Implementation Schedule:

Task	Implementation Date	Once Per	Task Type
1		Permit Term	Develop
2		Annually	Implement
3		Annually	Implement
4		Annually	Record
5		Annually	Report

Measurable Goals:

Goal: Develop illegal dumping and anti-litter public education materials for incorporation into the list of subjects to be included in brochures and flyers and the storm water quality web-site
Year: 2

Goal: Distribute illegal dumping and littering public education material in accordance with identified schedule.
Year: 3

Section 1.7.12 Pollution Prevention/Good Housekeeping and Municipal Operations

E. Catch Basin Cleaning

Reduce sediment and floatable materials discharges by routinely cleaning MS4 catch basin and storm water inlet structures.

1) Continued implementation of the catch basin cleaning program on an as-needed schedule.

2) Maintain records of the estimated quantity of materials removed from catch basins and surface inlet structures.

3) Evaluate the catch basin cleaning schedule on an annual basis.

4) Annually report on the estimated quantity of materials removed during cleaning activities.

Implementation Schedule:

Task	Implementation Date	Once Per	Task Type
1		Permit Term	Implement
2		Monthly	Record
3		Annually	Evaluate
4		Annually	Report

Measurable Goals:

Goal: Continued implementation of the catch basin cleaning program on an as-needed schedule.
Year:

F. Vehicle Maintenance

Maintain LaDOTD owned vehicles according to manufacturer's specifications and identify and eliminate vehicle fluid leaks.

1) Develop and maintain an inventory of LaDOTD owned vehicles.

2) Conduct routine maintenance on all vehicles according to manufacturer's specifications.

3) During routine maintenance of LaDOTD owned vehicles, inspect vehicles for the presence of fluid leaks.

4) Schedule repairs for vehicles determined to have fluid leaks.

5) Maintain vehicle maintenance records and document fluid leak repair activities.

6) Require LaDOTD vehicle operators to conduct daily inspections of vehicles to check for fluid leaks.

7) Annually report on the status of the vehicle maintenance program.

Implementation Schedule:

Task	Implementation Date	Once Per	Task Type
1		Permit Term	Develop
2		Annually	Implement
3		Annually	Implement
4		Daily	Implement
5		Monthly	Record
6		Daily	Implement
7		Annually	Report

Measurable Goals:

Goal: Develop and maintain an inventory of LaDOTD owned vehicles.
Year:

Goal: Conduct routine maintenance on all vehicles according to manufacturers' specifications and inspect vehicles for the presence of fluid leaks.
Year:

Goal: Schedule repairs for vehicles determined to have fluid leaks.
Year:

Goal: Require LaDOTD vehicle operators to conduct daily inspections of vehicles to check for fluid leaks.
Year:

SECTION 2

CITY OF WESTWEGO'S POST-CONSTRUCTION POLLUTION CONTROL SYSTEM

The City of Westwego is a small city with approximately 11,000 residents and an approximate city area of 1 square mile. The city is mostly developed with residential or commercial establishments. Only a few vacant tracts are available in the city for new development. In the most recent history, construction activities in the City have been limited to a few small residential houses. There has been no large scale construction in the City lately and the City does not anticipate such construction in the near future. However, the following guideline is prepared to limit pollutant entrance to storm water system in case of any construction activity in the city.

2.1 Commercial Parkway Overlay Zone (CPZ) Requirements

The City will adopt the guidelines as established in Jefferson Parish Comprehensive Zoning Ordinance Section 'XIII G' to establish and enforce CPZ requirements for new constructions and redevelopments.

2.2 Storm Water Detention

New developers and redevelopers are required to obtain permits for all construction projects within the city limits. The process is initiated by submitting completed Building Permit Application Forms and Project Plans to the City. The City Code Enforcement Department reviews the project plans and forwards them to the City Engineer in case of major construction work. The City Engineers take decisions on a case by case basis on the requirement of storm water detention basins as pre-requisite of obtaining the proper permit. In case of minor construction activities, permits may be issued directly from the Code Enforcement Department. It is mandatory for City personnel to refer large scale projects to the City Engineer to ensure proper post construction controls to limit the flow of pollutants to the storm sewer system.

2.3 Sanitary Sewage Connection and/or Treatment

The City of Westwego will uphold "The City of Westwego Drainage and Sewerage Disposal Law" (Ordinance No. 845, §1. 1-14-80) to ensure post-construction control on new and redevelopment activities.

2.4 Maintenance and Housekeeping

The City urges all new construction and redevelopment initiatives to follow good housekeeping practices. Any spill event is required to be notified to the Westwego Fire Department. The Fire Department subsequently acts to contain and/or clean up the spill. The Fire Department also completes and files a "Hazardous Materials Incident Report" for any spill containment and clean up action.

SECTION 2

CITY OF WESTWEGO DEPARTMENTS' RESPONSIBILITY

Operations and maintenance of the roadway system to control discharges of pollutants into the storm water collection system is the primary responsibility of the City of Westwego Public Works Department.

2.1 PUBLIC WORKS DEPARTMENT

The City of Westwego Public Works Department is primarily responsible for the operation and maintenance of the roadway system throughout the City, excepting the streets maintained by LA DOTD (please refer to Section 1.3). Public Works Department personnel conduct minor structural street repairs including concrete slab repairs and replacement and/or patching and resurfacing of asphalt paving on damaged streets. Independent contractors are hired to conduct more extensive structural repairs. In addition to structural street repairs and supervision of independent contractors, the Public Works Department is responsible for cleaning catch basins and drop inlets to reduce the introduction of floatables in the storm water drainage system and to improve drainage during wet weather. The Public Works Department personnel also responds to citizens' complaints to remove either accumulated trash and litter in their neighborhood or excess sediments and debris is catch basins and drop inlets.

The Public Works Department is also involved with several programs that directly and indirectly affect storm water runoff quality. The personnel of the Public Works Department respond to incidents involving hazardous materials that pose an exposure risk to the storm drainage system. The Public Works Department personnel also work with the Fire Department and Police Department to contain spilled material and protect the environment.

1.0 Purpose

The purpose of this program is to Promote, publicize, and Facilitate the followings:

- Public reporting of illicit or improper discharges, or improper disposal of materials, including floatables, into the Municipal Separate Storm Sewer System;
- Proper management and disposal of used motor vehicles fluids and household hazardous wastes; and
- Proper use, application, and disposal of pesticides, herbicides, and fertilizers by the public and commercial and private applicators and distributors.

In Part II.A.6.d of the permit, The City of Westwego is required to meet the following goals:

- Prohibit the discharge or disposal of used motor vehicle fluids and household hazardous wastes, and the intentional disposal of collected quantities of grass clipping, leaf litter, and animal wastes into separate storm sewers.

- Facilitate the proper disposal or recycle of used motor vehicle fluids (at a minimum, oil and antifreeze) and toxic form households (including paint, solvent, pesticides, herbicides, and other hazardous materials).

2.0 Implementation

The City of Westwego along with other co-permittee and Jefferson Parish will be involved in Public Education efforts. City of Westwego has actively participated in an Essay/Poster Contest conducted as part of Public Education Program. Committees were formed among the co-permittee to complete various tasks towards hosting a successful contest. The City of Westwego was a member of the Awards and Funding Committee for the Essay/Poster Contest, Awards Banquet and Display.

The City of Westwego will continue to increase the public awareness and participation in storm quality related issues through its public education program including flyers, handouts, water bill inserts, and through public hearings and school seminars.

2.1 Existing Regulations

The city of Westwego has in place several laws prohibiting the discharge into the storm drainage system of several of the items cited in numbers 1.0 above.

Section 4:100 of the Westwego Code of Ordinances requires the owner of an animal to clean up and dispose of in a sanitary manner excreta from their animal.

Section 27:112 and 27:113 of the Westwego Code of ordinances makes it unlawful for any person to dump, throw, place or otherwise dispose of cut grass, weed, trees or tree limbs, trash, garbage, or other debris in any storm drainage system.

Section 10:151 of the Westwego Code of Ordinances prohibits the discharge of grease, oils, minerals or chemicals into any drainage ditch or drainage canal.

The City of Westwego uses its legal power to create, adopt, and implement ordinances to control discharges into the storm water collection system. Many of the ordinances implemented by the City of Westwego render it illegal and punishable by law to pollute the storm water collection system. These ordinances prohibit littering and dumping of any debris, trash, or garbage into any drainage canals, ditches or drainage catch basins.

2.2 Existing Programs

Solid waste Collection

To facilitate the proper disposal of the aforementioned solid wastes, the City of Westwego collects grass and shrub clippings, leaf litter and animal wastes curbside as part of their twice weekly garbage collection. Additionally, the citizens of Westwego may make use of Jefferson Parish's four (4) Citizen Trash Drop-off Sites that collect these wastes, along with other municipal solid waste.

Curbside Recycling Program

Westwego, through the use of contracted recyclable hauler, offers once a week curbside collection. Recycling Trucks have two compartments in which to place separate recyclable materials. The following items are collected: aluminum and tin cans, glass food and beverage containers, newspaper, telephone books, catalogs and magazines, corrugated cardboard and #1 & #2 plastics.

Drop-off recycle Sites for waste Automotive Fluids, Tires, Batteries and Yard Wastes

As a co-permittee of the NPDES Permit, Westwego relies on the use of Jefferson Parish's drop-off recycle sites. To facilitate the proper disposal and recycling of used motor vehicle fluids, Jefferson Parish operates drop-off recycling sites at two (2) trash drop-off sites, one on each side of Mississippi river/ These recycling sites, which have been in operation since the early 1990s, allow residents to drop-off the used motor oil, antifreeze, gasoline, waste tires and automotive batteries for recycling. Residents of the parish are allowed to dispose of up to five (5) gallons per day of used motor oil and antifreeze and two (2) gallons per day of gasoline. These drop of sites are available to all citizens of Jefferson Parish, including the municipalities.

Jefferson Parish sponsors and publicizes its motor oil, antifreeze, and gasoline-recycling program. They also make available to the public information regarding the proper identification and disposal of other household hazardous wastes. This includes, but is not limited to, information brochures developed by Jefferson Parish or obtained from others that are distributed via utility bills, public service announcements, or curbside recycling bins.

Residential Reuse, Recycle and disposal Guide

As a co-permittee to the NPDES Permit, Westwego participates in programs operated by Jefferson Parish. To facilitate the disposal and/or recycling of household hazardous wastes, the Jefferson Parish department Environmental Affairs periodically publishes and distributes a Residential Reuse, Recycle, and Disposal Guide. This guide advices the residents on the proper use and disposal of HHW and provides a listing of outlets for the proper disposal, reuse and recycling of HHW and other household recyclables. The HHW that the addresses include expired medications, nickel-cadmium batteries, used syringes, air conditioners and refrigerators, latex paint, oil based paints and solvents, gasoline and diesel fuel, used motor oil and antifreeze, car and truck batteries, computer components and monitors, fluorescent lamps, mercury, and pesticides. This guide is distributed via placement of one in every curbside recycling bin, mail-outs and presentations to civic, business school, and scout groups, and mail-outs in response to telephone requests for the guide. The guides are available to all Jefferson Parish residents, including municipalities.

Disposal outlets included in the guide are the Parish's two (2) Drop-off Recycling Sites and Local recyclers such as the Green Project, a local organization that accepts latex paint, unopened oil paint, stains, paint thinner, unopened caulk and paint stripper.

Jefferson Parish has the Residential Reuse, Recycle, and Disposal Guide available on its Website. This Facilitates disposal options being more readily accessible to the public.

Collection Events

As a co-permittee to the NPDES Permit, Westwego participates in programs operated by Jefferson Parish. Jefferson Parish and other co-permittees realize the need for periodic HHW collection events. Events will be held when sponsors or funding can be identified to defray the cost of the events.

All past HHW collection events have been for all residents of Jefferson Parish, including the municipalities. It is anticipated that any future events would also include residents from the municipalities.

Citizens Complaints

Public involvement and participation is a critical key to the success of improving storm water runoff quality. Citizen complaints associated with street maintenance problems are investigated and corrected by the Public Works Department. These

SECTION 2

NOTIFICATION PROCEDURES

This section addresses the notification procedure for developers with construction sites that disturb five (5) or more acres of land. The City of Westwego is already overdeveloped with only a few vacant lots of sufficient size to be included in this program. In the most recent history, construction activity in the City has been limited to small residential houses. There have been no large scale construction in the City lately and the City does not anticipate such construction in the near future. However, this program is still being developed to be used in case any of the few remaining large vacant lots are slated for any significant construction activity. These construction sites will require storm water permit and implementation of Best Management Practices (BMPs). Separate notification procedures are discussed for City of Westwego Public Works and Private Projects.

2.1 CITY OF WESTWEGO PUBLIC WORKS PROJECTS

The responsibility for obtaining the proper permit documentation for all City projects remains with the Department(s) initiating the construction project. The Department(s) responsible for new construction projects is (are) required to make contractors of projects with a common plan of development of five (5) acres or greater, aware of the requirement to obtain coverage under the Construction Sites General Permit. If a storm water permit is deemed necessary during the planning phase, then a Notice of Intent (NOI) and a Notice of Termination (NOT) will be submitted to the Louisiana Department of Environmental Quality (LDEQ) at the address below, with a copy sent to the City of Westwego prior to any clearing and grubbing activities. A Storm Water Pollution Prevention Plan (SWPPP) is developed and implemented to maintain compliance during the construction phase of the project. The Notice of Intent Form shall be submitted to the:

Louisiana Department of Environmental Quality
General Permits Unit
P.O. Box 82215
Baton Rouge, Louisiana 70884-2215

2.1.1 Storm Water Pollution Prevention Plan Development

The Department(s) responsible for a new construction project will make the determination either to develop the SWPPP internally or to include it as part of the contract with its design consultant. Upon completion of the SWPPP by either City of Westwego or its consultant, it is included in the Contract Documents during the Bid Phase of the project. The Contract Documents shall also state the

Contractor's responsibility to implement and document the SWPPP throughout the duration of the construction phase.

2.2 PRIVATE PROJECTS

A Building Permit is required for all developers/constructors prior to commencing construction activities. City of Westwego utilizes building permits as the primary source of information to the applicant in determining the required permits (e.g., storm permit). The Building Permit Division of the Inspection and Code Enforcement Department provides an application package to each applicant including permit requirements.

2.2.1 City of Westwego Departments' Responsibility

The building permit application package provides information to the applicant on the different departments that could be involved during the permit review process. The primary departments involved during the permit review process are:

Inspection and Code Enforcement Department
Fire Department
Louisiana Department of Health and Hospitals

2.2.1.1 Inspection and Code Enforcement Department. The Building Permit Division of the Inspection and Code Enforcement Department is the primary source of information to the applicant. The Inspection and Code Enforcement Department does not issue a Building Permit until receiving approval from all departments involved in the review process.

SECTION 2

IDENTIFICATION OF FACILITIES SUBJECT TO PROGRAM

The lists of Industrial and High Risk facilities subject to the inspection and monitoring programs were submitted to the US EPA in September 1999. This section addresses the process used to develop the current list of potential industrial and high risk contributors to the storm water drainage system. A large portion of the City of Westwego is already developed with only a few vacant lots of sufficient size remaining for future development. In the most recent history, construction activity in the City has been limited to small residential houses. There has been no large scale construction in the City lately and the City does not anticipate such construction in the near future. However, even under this scenario, addition of new facilities with the potential of contributions to the storm water drainage system is not precluded. Hence, procedure to identify additional facilities is discussed here, to be used in case any of the few remaining vacant lots are slated for any significant construction activity or if any existing non-industrial facility is converted to a potentially polluting industrial or high risk facility. This section also discusses survey methods for facilities currently listed as well as the steps needed to determine un-permitted facilities.

2.1 PROCESS USED TO DEVELOP CURRENT LIST

Jefferson Parish initially prepared a master list of all industrial facilities within the Parish limits that fell under the NPDES permit criteria. This list was subsequently used to prepare a second list of facilities solely within the Westwego city limits. The latter list was analyzed by the City Water and Wastewater superintendent and the City Engineers. The list was analyzed as to the following parameters:

1. Location of facility: Facilities were eliminated from the list if they were not wholly contained within the City of Westwego.
2. Status of Activity: Facilities were eliminated from the list if they were not in active operating status. Thus, inactive and/or abandoned facilities were eliminated from the list.
3. Available knowledge about pollution: Preliminary determination was made as to potential of pollution contribution to storm sewer system from facilities based on available records and past experience of City Superintendents.

2.2 PROCEDURE FOR INDENTIFICATION OF ADDITIONAL FACILITIES

A Building Permit is required for all developers/constructors prior to commencing construction activities within the City of Westwego. The City utilizes building permits as the primary source of information to determine types of new structures and facilities being added. This is an ongoing process, whereby any new industrial facility construction, or modification of any existing non-industrial facility to an industrial facility is entered into the existing database for I&HR inspection. However, as mentioned above, the City is already overdeveloped and does not foresee any major addition of industrial facilities in the future.

2.3 INDUSTRIAL SURVEYS OF FACILITIES ON CURRENT LIST

The facilities currently listed under the IHRIP will undergo periodic industrial surveys by the City of Westwego Water and Wastewater Superintendent. The survey will establish existing conditions in and around the facility which will help delineate probable discharge of industrial pollution into MS4. More specifically, the survey will note the following:

1. Name of facility.
2. Type of facility – industrial, manufacturing, commercial, processing, business, etc.
3. Location of facility.
4. Product list as produced in the facility.
5. Raw materials used in the facility
6. Proper storage of MSDS of all chemicals used in the facility.
7. Route of discharge into MS4.

2.4 DETERMINE UNPERMITTED FACILITIES

Regular inspections of the storm sewer system, as is performed using the Sub-Basin System Survey under the Dry Weather Screening Program, yield data on pollution problem areas within the City of Westwego. Recurring problems in any particular storm sewer will be following by the following steps to determine un-permitted facilities:

1. Note recurrence of pollution in particular storm sewer system utilizing visual inspection and sampling and analysis.
2. Identify sources of discharge into the polluted storm sewer.
3. Check the identified sources with those listed in the I&HR Inspection Program and Monitoring Program.
4. Identify new pollution source(s) not present in the current list.
5. Query the newly identified facilities about discharge permits.

This 5-step process will enable the City of Westwego to identify unpermitted facilities within the course of regularly scheduled MS4 permit related inspection activities. This action will be a high priority one due to the possible total absence of information on potentially harmful new industrial discharges to the storm sewer system.

1.0 Purpose

The purpose of this program is to prevent, contain, and respond to spills that may discharge into the Municipal Separate Storm Sewer System shall be implemented. Where discharge of material resulting from a spill is necessary to prevent loss of life, personal injury, or severe property damage, the permittee shall take, or insure the responsible party for the spill takes all reasonable steps to minimize or prevent any adverse effects on human health or environment. The spill response program may include a combination of spill response actions by permittee and legal requirements for private entities within the municipal jurisdiction.

2.0 Implementation

The City of Westwego has completed a citywide master drainage plan for improvements to the street drainage systems. Jefferson Parish owns and operates all drainage canals. The City of Westwego's operation and maintenance policies and procedures is to reduce the discharge of pollutants into the Waters of the United States. The practices included in this program include administrative actions such as reporting and ordinance control; and non-structural controls such as inspection and open drainage ditch maintenance.

The City of Westwego's Fire Department responds to any spill and the City Street Department stockpiles sand for absorbing minor spills, which is then properly disposed of. All incidents are immediately reported to the LA Department of Environmental Quality.

The City's Street Department will continue to maintain and repair roadway structures, including ditches, culverts, catch basins and roadways. City workers will also perform routine repairs to streets, catch basins and other structures in-house. The Street Department will also continue to respond to citizen complaints to remove accumulated trash and debris in drainage ditches, on roadways and in catch basins and drop inlets.

The City of Westwego uses multiple programs to control discharge into and from the storm water drainage system. These programs include structural controls, source controls and controls through ordinances. The Parks Department is the primary agency involved directly and indirectly in the maintenance of parks, recreational areas, and green areas in streets, medians and drainage canals. However, the Sewerage Department and the Public Works Department also are involved in this program. The Parks Department's primary responsibility is the operation and maintenance of recreational parks and playgrounds in the City of Westwego. The Parks Department's practices include litter control, vegetation control, and general maintenance at all the parks and playgrounds.

The Sewerage Department's role in this program is solely providing assistance to the Parks Department as and when needed with both equipment and manpower.

The City of Westwego Public Works Department is the leading department for operation and maintenance of the storm water collection system. The Department is also responsible for vegetation control within open drainage ditches and rights-of-way.

The City of Westwego will submit an annual report as required by the permit.

SECTION 2
CITY OF WESTWEGO DEPARTMENT'S RESPONSIBILITY

The City of Westwego uses multiple programs to control discharge into and from the storm water drainage system. These programs include structural controls, source controls and controls through ordinances. The Parks Department is the primary agency involved directly and indirectly in the maintenance of parks, recreational areas, and green areas in streets, medians and drainage canals. However, the Sewerage Department and the Public Works Department also are involved in this program.

2.1 PARKS DEPARTMENT

The Parks Department's primary responsibility is the operation and maintenance of recreational parks and playgrounds in the City of Westwego. The Parks Department's practices include litter control, vegetation control, and general maintenance at all the parks and playgrounds.

2.2 SEWERAGE DEPARTMENT

The Sewerage Department's role in the PH&F Program is solely providing assistance to the Parks Department as and when needed with both equipment and manpower.

2.3 PUBLIC WORKS DEPARTMENT

The City of Westwego Public Works Department is the leading department for operation and maintenance of the storm water collection system. The Department is also responsible for vegetation control within open drainage ditches and rights-of-way.

Identification of Allowable Non-storm Water Discharges

Sanitary Sewer Issues

- *Prevention of Dry and Wet Weather Overflows:* Routine equipment inspections, a preventive maintenance program on equipment and an ongoing commitment to replace old, outdated and unreliable equipment.

- *Program for Responding to and Eliminating Unforeseen Overflows:* Routine equipment inspections, a preventive maintenance program on equipment and the correcting of any potential situations that could result in an overflow of the City's sanitary sewer system.

- *Ongoing Seepage Prevention:* The City of Westwego will continue to repair or replace the City's sanitary sewer system lines when necessary. This includes repair of manholes and lift stations. This work will reduce the amount of seepage.

Implementation of a Program to Reduce Floatables

The City of Westwego performs periodic maintenance operations which includes the cleaning of drainage ditches and the removal of litter in streets and public property.

Illicit Discharges and Improper Disposal Location

The City monitors the drainage system for potential problems. If a problem is discovered, or reported by a citizen, the City makes every effort to discover the source of the problem in order to take corrective measures.

Illicit Discharges and Improper Disposal Elimination

The City Fire Department Hazmat team will respond to any spills and code enforcement. The City will continue its participation with Jefferson Parish and other co-permittee in the public education portion of this permit.

Maintenance of a List of Dischargers to the MS4 Which Have NPDES Permits

The City of Westwego has a list of contributors to the sanitary sewer which are required to maintain a permit.

investigations serve to identify problem areas and facilitate the expedient scheduling and implementation of corrective actions, such as collection and removal of litter accumulated on vacant lots. These operation and maintenance practices are the responsibility of the Public Works Department and serve to reduce pollutant loading to the receiving water body by reducing floatables in street runoff.

The City of Westwego will perform periodic maintenance operations which includes the cleaning of drainage ditches and the removal of litter in streets and public property.

The City will monitor the drainage system for potential problems. If a problem is discovered, or reported by a citizen, the City Department of Maintenance makes every effort to discover the source of the problem in order to take corrective measures.

The City Fire Department Hazmat team will respond to any spills and code enforcement. The City will continue its participation with Jefferson Parish and other co-permittees in the public education program.

SECTION 2

CITY OF WESTWEGO'S DRAINAGE SYSTEM

2.1 STORM WATER DRAINAGE SYSTEM

Jefferson Parish's topographical characteristics, below sea level elevations, have necessitated unique facilities such as protective levees, open drainage canals, and pump stations to provide adequate drainage and flood protection. Over the years, City of Westwego's separate storm sewer system has evolved into a system of over 38 miles of subsurface drainage system for collections and conveyance of storm water runoff.

City of Westwego's drainage system serves approximately 1 square mile of industrial, commercial, residential, and unclassified areas. Storm water runoff from residential, commercial, and industrial land areas are drained via drop inlet. Subsurface drainage lines convey storm water into open drainage canals. Finally, storm water is discharged into waters of the United States through several high capacity pump stations.

2.2 DRAINAGE PUMP STATIONS

All drainage pump stations within the City limits of Westwego are owned and operated by Jefferson Parish Drainage Department.

Municipal Separate Storm Sewer System (MS4)

City Of Westwego

Runoff Calculations

MAY 2022

Total Drainage area = 2 Square miles = 1,280 Acres

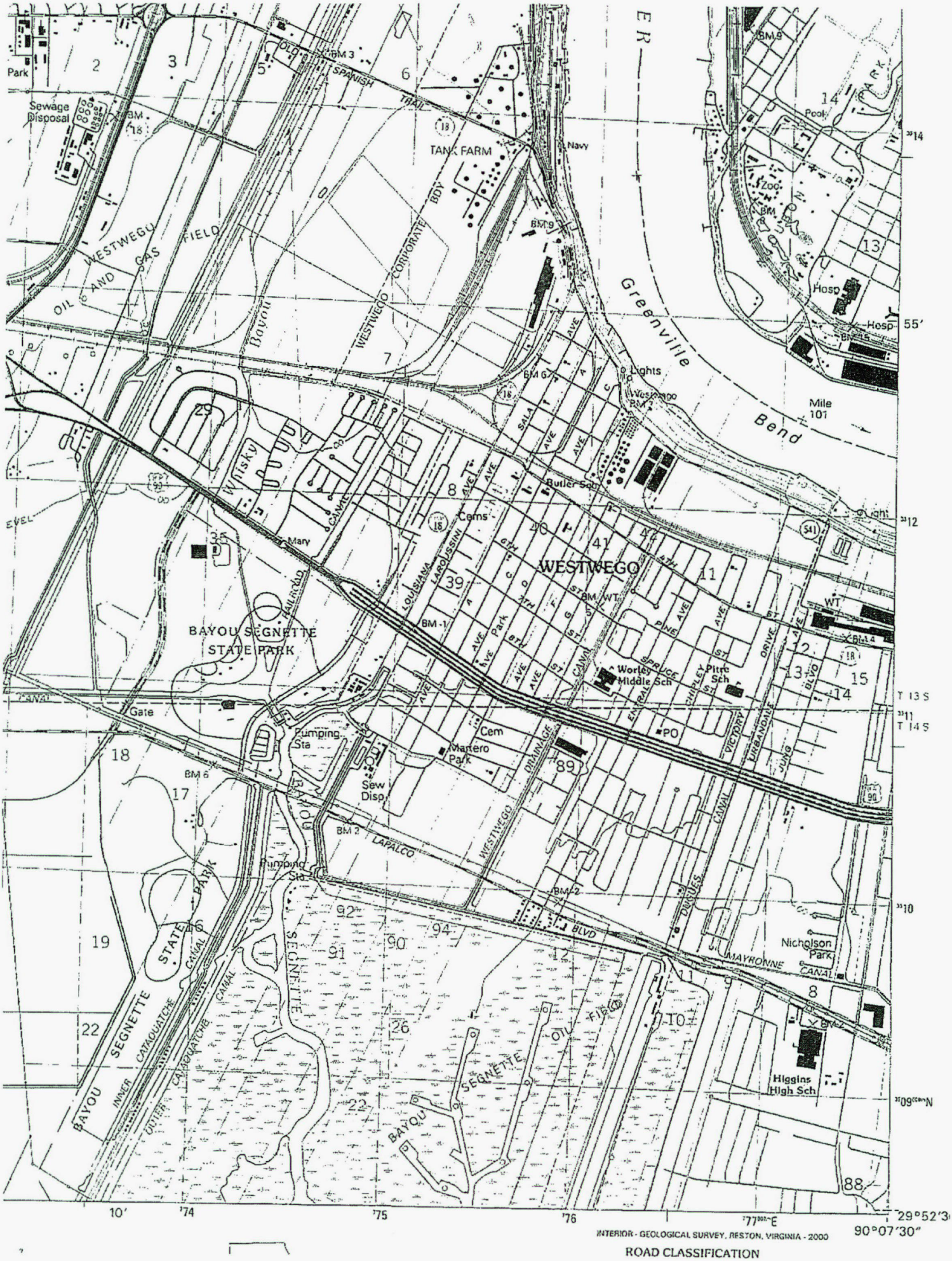
Residential Area = 896 Acres

Commercial and Industrial Area = 384 Acres

Runoff from Residential area = CIA
= (0.45)(0.375 in/hr)(896) = 151.2 CFS

Runoff from Commercial and Industrial area = CIA
= (0.85)(0.375 in/hr)(384) = 122.40 CFS

Total Runoff = 273.60 CFS
= 176.8 MGD



INTERIOR - GEOLOGICAL SURVEY, RESTON, VIRGINIA - 2000

ROAD CLASSIFICATION

May 20, 2022

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

RE: City of Westwego, Jefferson Parish, Louisiana, Municipal Separate Storm Sewer System (MS4) National Pollutant Discharge Elimination System (NPDES) Permit No. LAS000201 Renewal 2022-2027
Storm Water Management Plan

To Whom It May Concern:

Attached please find the City of Westwego Municipal Separate Storm Sewer System (MS4) Discharge Permit Renewal for 2022-2027. The Storm Water Management Program (SWMP) has been updated, in accordance with permit requirements of Part II.G., to meet the permittees' program objectives for water quality protection.

Per the requirements of Part VI.H. of Permit No. LAS000201, I certify under penalty of law that the sections of this document and all attachments pertaining to Westwego, Louisiana were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated 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. The information submitted for the other co-permittees for this Report was incorporated as submitted, and I make no certification for its content.

If you have any questions or need additional information, please contact me at (504) 347-5745.

Sincerely,

Robert E. Billiot Sr.
Mayor

THE CITY OF GRETNA

NPDES MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT

STORM WATER MANAGEMENT PROGRAM

May 2022

Prepared For:

The City of Gretna, Louisiana

Prepared By:

BURK-KLEINPETER, INC.
4176 Canal St.
New Orleans, Louisiana 70119
(504) 486-5901

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Appendix C: Roadway Maintenance Program

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SECTION 1

STORMWATER MANAGEMENT PROGRAM

1.1 INTRODUCTION

The Storm Water Management Program (SWMP) was established to monitor and control the quality of storm water discharged from the Municipal Separate Storm Sewer System (MS4). The MS4 permit incorporated Jefferson parish and its incorporated Cities of Gretna, Harahan, Kenner, and Westwego. The overall goal is to develop and maintain programs which actively reduce the amount of pollutants that are discharged from the Municipal Separate Storm Sewer System.

The following presents a list of all MS4 programs and documents developed under this Permit. These programs were developed for this or previous permit submittals.

- Wet Weather Screening Program
- List of Facilities Subject to I&HR Inspections
- List of Facilities Subject to I&HR Monitoring
- List of Facilities Exempt from I&HR Monitoring
- List of Allowable Non-Storm Water Discharges
- System Maintenance Program
- Roadway Maintenance Program
- Construction Site Inspection Program
- Pesticide, Herbicide, & Fertilizer Program
- Guidance Document - New Flood Control Projects
- Guidance Document - Post-Const. Pollutant Controls
- Illicit Discharge Inspection Program
- Revised Illicit Discharge Inspection Program
- I&HR Inspection Program
- I&HR Monitoring Program
- Summary Report of Retrofitting Existing Flood Control
- Household Hazardous Wastes Program

These programs were developed to meet the requirements of the fourteen SWMP elements set by the MS4 Permit. The fourteen SWMP elements are as follows:

- Structure Controls and Storm Water Collection System Operation
- Post-construction Storm Water Management in New Development and Significant Redevelopment
- Roadways

- Flood Control Projects
- Pesticides, Herbicide, and Fertilizer Application
- Illicit Discharges and Improper Disposal
- Spill Prevention and Response
- Industrial and High Risk Facilities
- Construction Site Runoff
- Public Education
- Monitoring Programs
- Pollution Prevention/Good Housekeeping for Municipal Operations
- Green Infrastructure/Low Impact Development
- Measurable Goals

There requirements set forth by the MS4 Permit are carried out by the various City of Gretna Departments including the Department of Public Works, Department of Code Enforcement, Department of Building and Regulatory Inspections, and Department of Public Utilities.

In addition to the requirements set forth here, The City of Gretna adopted a new Unified Development Code (UDC) on June 22, 2019. ARTICLE IV SITE DEVELOPMENT AND DESIGN STANDARDS details the permit requirements, runoff standards, planting and stormwater management and flood damage protection requirements for new or retrofitting projects within city limits. For the pertinent UDC sections, please see:
Planning and City Development - City Of Gretna (gretnala.com)
The City of Gretna's Municode with updates can be found here:
https://library.municode.com/la/gretna/codes/code_of_ordinances

1.2 Element and Program Descriptions

Following are discussions of the City of Gretna's activities in each SWMP Element.

Structural Controls and Storm Water Collection System Operation - maintenance and/or inspection activities of the MS4 and any existing structural controls, such as storm water detention ponds.

The "System Maintenance Program" was developed in previous reporting periods. Documentation was submitted to EPA by the City of Gretna on December 1, 1998. Compliance certification was submitted to EPA by the City of Gretna on February 24, 1999.

The "System Maintenance Program" summarizes the City of Gretna's operations and maintenance policies and procedures to reduce the discharge of pollutants to the waters of the United States from the MS4 and any storm water structural controls to the

Maximum Extent Practicable. The scope includes administrative actions (reporting and ordinance control), structural controls (bar screens), and non-structural practices (inspection and maintenance).

Post-construction Storm Water Management in New Development and Significant Redevelopment - master planning process to develop, implement, and enforce controls for minimizing the discharge of pollutants.

The "Guidance Document for Providing Technical Criteria for Post-Construction Pollutant Controls in Areas of New Development and Re-development" was developed in previous reporting periods through research into existing City Building Codes, Building Permit Processes, City Ordinances, and City Practices. The document was submitted to EPA by the City of Gretna on March 1, 1999. Compliance certification was submitted to EPA by the City of Gretna on March 1, 2000.

The "Guidance Document for Providing Technical Criteria for Post-Construction Pollutant Controls in Areas of New Development and Re-development" defines measures to be taken by the City of Gretna to ensure that water quality after development is no worse than that before development. In addition, for developments greater than 10,000 square feet, the first 1.25" of a 10 year rain event must be detained and/or retained on site. The scope includes requirements for development permits, land use planning, utility inspections, waste disposal practices, space provisions, storm water detention provisions, and public education programs.

In addition to the requirements set forth here, The City of Gretna adopted a new Unified Development Code (UDC) on June 22, 2019. ARTICLE IV SITE DEVELOPMENT AND DESIGN STANDARDS details the permit requirements, runoff standards, planting and stormwater management and flood damage protection requirements for new or retrofitting projects within city limits. For the pertinent UDC sections, please see:
Planning and City Development - City Of Gretna (gretnala.com)
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Roadways - operation and maintenance of public streets, roads, and highways such as street sweeping, litter control activities, and maintenance of storm water structures (such as inlets and catch basins) and roadside ditches.

The "Roadway Maintenance Program" was developed in previous reporting periods. Documentation was submitted to EPA by the City of Gretna on December 1, 1998. Compliance certification was submitted to EPA by the City of Gretna on February 24, 1999.

The "Roadway Maintenance Program" summarizes the City of Gretna's operations and maintenance policies and procedures to reduce the discharge of pollutants to the waters of the United States from its roadway system to the Maximum Extent Practicable. The

scope includes administrative actions (reporting and ordinance control), structural controls (vegetative medians and roadsides, maintenance of paving to prevent seepage), and non-structural practices (street sweeping and catch basin maintenance).

Flood Control Projects - assessment of impacts on receiving water quality for all flood management projects to include a report evaluating the feasibility of retrofitting existing structural flood control devices to provide additional pollutant removal from storm water.

The "Guidance Document for Assessment of Water Quality Impacts from New Flood Control Projects" was developed in previous reporting periods through research into existing City Building Codes, Building Permit Processes, City Ordinances, and City Practices for both existing and new flood control projects. The document was submitted to EPA by the City of Gretna on March 1, 1999. Compliance certification was submitted to EPA by the City of Gretna on March 1, 2000.

The "Guidance Document for Assessment of Water Quality Impacts from New Flood Control Projects" defines measures to be taken by the City of Gretna to ensure that flood control projects have no adverse impacts on receiving water quality. The document covers construction or modification of drainage pumping stations, storm water detention ponds, open drainage canals, and subsurface drainage trunk lines. The scope includes requirements for development or drainage permits, design by the Engineer and review by the City of such flood control projects as mentioned above, and construction and maintenance practices of the construction site and the project itself.

The "Summary Report of Retrofitting Existing Flood Control Devices" was developed in previous reporting periods through research into the City's existing drainage system and drainage structures, proposed future drainage projects proposed within the City, and existing City Practices for both existing and new flood control projects. The document was submitted to EPA by the City of Gretna on June 1, 2001. Development of the "Summary Report of Retrofitting Existing Flood Control Devices" was delayed by the permit evidentiary hearing and settlement agreement, which brought about a temporary staying of the permit and new programs during previous reporting periods.

The "Summary Report of Retrofitting Existing Flood Control Devices" describes the existing flood control devices used by and in the City of Gretna, identifies those agencies responsible for construction and maintenance of those devices, summarizes potential retrofits for each, and addresses the feasibility of implementing those retrofits within the City of Gretna's drainage system and drainage structures, both existing and proposed. The Document compares each type of retrofit's feasibility to its cost, its effectiveness of pollutant removal, and the type of pollutants it removes.

In addition to the requirements set forth here, The City of Gretna adopted a new Unified Development Code (UDC) on June 22, 2019. ARTICLE IV SITE DEVELOPMENT AND DESIGN STANDARDS details the permit requirements, runoff standards, planting and

stormwater management and flood damage protection requirements for new or retrofitting projects within city limits. For the pertinent UDC sections, please see:
Planning and City Development - City Of Gretna (gretnala.com)
The City of Gretna's Municode with updates can be found here:
https://library.municode.com/la/gretna/codes/code_of_ordinances

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Pesticide, Herbicide, and Fertilizer Application - certification training and public education.

The "Pesticide, Herbicide, and Fertilizer Program" was developed in previous reporting periods. The document was submitted to EPA by the City of Gretna on December 1, 1998. Compliance certification was submitted to EPA by the City of Gretna on February 24, 1999.

The "Pesticide, Herbicide, and Fertilizer Program" summarizes the City of Gretna's employee training and certification, chemical storage and labeling, application, and disposal practices and procedures to reduce the discharge of pollutants to the waters of the United States from the storage, application, and disposal of chemicals to the Maximum Extent Practicable.

In addition to the requirements set forth here, The City of Gretna adopted a new Unified Development Code (UDC) on June 22, 2019. ARTICLE IV SITE DEVELOPMENT AND DESIGN STANDARDS details the permit requirements, runoff standards, planting and stormwater management and flood damage protection requirements for new or retrofitting projects within city limits. For the pertinent UDC sections, please see:
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Illicit Discharges and Improper Disposal -

a) *Identification of allowable non-storm water discharges*

The "List of Allowable Non-Storm Water Discharges" was developed in previous reporting periods. The list was submitted to EPA by the City of Gretna on December 1, 1998.

The "List of Allowable Non-Storm Water Discharges" presents a tabular list of non-storm water discharge categories exempt from the prohibition on non-storm water discharges to the MS4, along with limitations on these discharges and reasons for determinations. These discharges include those regulated by a separate NPDES permit; those for which an NPDES permit application has been submitted; and those identified by the City of Gretna which are either: listed in 40 CFR 122.26(d) (2) (iv) (B) (1), occasional incidental discharges, or are not reasonably expected to be significant sources of pollutants to the MS4 due to their nature or conditions placed on them by the City.

In addition to the requirements set forth here, The City of Gretna adopted a new Unified Development Code (UDC) on June 22, 2019. ARTICLE IV SITE DEVELOPMENT AND DESIGN STANDARDS details the permit requirements, runoff standards, planting and stormwater management and flood damage protection requirements for new or retrofitting projects within city limits. For the pertinent UDC sections, please see:
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b) *Sanitary Sewer Issues*

Sanitary Sewer issues are included in the "Illicit Discharge Inspection Program" and the "Guidance Document for Providing Technical Criteria for Post-Construction Pollutant Controls in Areas of New Development and Re-development," which were developed in previous reporting periods through research into existing city building codes, building permit processes, city ordinances, and city practices. These documents were submitted to EPA by the City of Gretna on March 1, 1999 (a revised "Illicit Discharge Inspection Program" was submitted to EPA by the City of Gretna on March 25, 1999). Compliance certifications were submitted to EPA by the City of Gretna on March 1, 2000.

In addition to the requirements set forth here, The City of Gretna adopted a new Unified Development Code (UDC) on June 22, 2019. ARTICLE IV SITE DEVELOPMENT AND DESIGN STANDARDS details the permit requirements, runoff standards, planting and stormwater management and flood damage protection requirements for new or retrofitting projects within city limits. For the pertinent UDC sections, please see:
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- *Prevention of Dry and Wet Weather Overflows*

As reported in the "Illicit Discharge Inspection Program," all sanitary sewer connections and discharges must be approved by the City Plumbing Inspector by City Ordinance. As reported in the "Guidance Document for Providing Technical Criteria for Post-Construction Pollutant Controls in Areas of New Development and Re-development," all developers who propose to discharge industrial wastes into the public sewers are required to fill out an industrial waste questionnaire, which includes flow rates and an analysis of the waste to be discharged. Connections to the public sewer are guided and enforced by City Ordinance.

As reported in the "Guidance Document for Providing Technical Criteria for Post-Construction Pollutant Controls in Areas of New Development and Re-development," the design of sanitary sewer systems for all new construction is reviewed under the building permit process by the City of Gretna Department of Inspections and, for large projects, the City Engineer. The design of such systems shall be required to eliminate discharge from the system into flood waters or the MS4. The City of Gretna has adopted Jefferson Parish's standard plans for installation of utility and drainage pipes to prevent leakage. These plans include filter cloth at the pipe joints and also specify minimum horizontal and vertical clearances between sanitary sewer and drainage pipes to prevent infiltration and cross-flow between the pipes.

- *Program for responding to and eliminating unforeseen overflows*

  As reported in the "Illicit Discharge Inspection Program," the City of Gretna Department of Public Works maintains a manned telephone line for reporting of sewage leaks or stoppages and sends out crews to investigate complaints. Further, City crews visually inspect the entire drainage system to observe evidence of pollution on a regular three-week cycle and as required in the "Wet Weather Screening Program" and the "Dry Weather Screening Program." Any illicit connections discovered are ordered to be removed as enforced by City Ordinance.

- *Ongoing seepage prevention*

  In previous reporting periods, the City of Gretna completed smoke tests on existing subsurface lines performed through a private company. The City Engineer has prepared plans and specifications for repairs to existing sewer house connections from the slab to the main. These repairs were publicly bid out during a previous reporting period. The cost of the repairs to the service lines on private property will have to be reimbursed by the property owner to the City of Gretna. All other repairs are paid for by the City of Gretna from their general operating budget.

- *Drainage and Sewer Line Infrastructure Inspection-Cataloguing*

  In 2022 The City of Gretna entered into an agreement to catalogue existing sewer and drainage infrastructure. In addition to the size, type and location of these utilities, the condition of the infrastructure will be detailed. The data will be catalogued in ArcGIS mapping software. The data will be the basis for a capital improvements program that will ensure that no seepage and cross contamination will occur thus reducing the pollutants into the receiving waters of the Gretna Canal system.

c) *Implementation of a program to reduce floatables*

Programs to reduce floatables are included in the "Roadway Maintenance Program" and the "Construction Site Inspection Program," which were developed in previous reporting periods. These documents were submitted to EPA by the City of Gretna on December 1, 1998. Compliance certifications were submitted to EPA by the City of Gretna on February 24, 1999.

The "Roadway Maintenance Program" describes the regular procedures and practices of the City of Gretna Department of Public Works which reduce the amount of floatables entering the MS4, including grass-cutting operations (on a regular three-week cycle), street sweeping administration, catch basin maintenance, and vegetation control. Further, the Department has a manned telephone line to receive individual complaints from citizens concerning blocked drainage systems, clogged catch basins, and other such drainage problems. These are handled on a work-order basis by the Department's maintenance personnel.

The "Construction Site Inspection Program" describes recommended BMP's to eliminate soil erosion on construction sites and the discharge of construction debris and sediments from construction sites by stabilization, structural, non-structural, waste disposal, and off-site vehicle tracking practices and controls. This program also describes notification, inspection, and enforcement procedures by the City of Gretna to ensure that all BMP's are implemented and discharges are eliminated.

Further, any floatables (debris, trash, overgrowth, or other objectionable objects) visually observed in the MS4 are removed by City of Gretna Department of Public Works crews during implementation of the "Wet Weather Screening Program" and the "Dry Weather Screening Program" as described elsewhere in this report.

Additionally, programs to reduce floatables are included in the "Guidance Document for Development and Re-development," which was developed in previous reporting periods through research into existing City Building Codes, Building Permit Processes, City Ordinances, and City Practices. This document was submitted to EPA by the City of Gretna on March 1, 1999. Compliance certification was submitted to EPA by the City of Gretna on March 1, 2000.

The "Guidance Document for Providing Technical Criteria for Post-Construction Pollutant Controls in Areas of New Development and Re-development" describes waste disposal practices within the City of Gretna and the greenspace provision, enforced by City Ordinance, which helps to filter out impurities and pollutants in storm water runoff prior to discharge into the MS4.

Finally, this topic was included in Public Education efforts and programs developed in previous reporting periods. Special drain markers were developed and distributed which warn of illegal dumping in storm drains. A program was developed in previous

reporting periods to place these markers on storm drains. More about these efforts is provided below in Section I.10.

In addition to the requirements set forth here, The City of Gretna adopted a new Unified Development Code (UDC) on June 22, 2019. ARTICLE IV SITE DEVELOPMENT AND DESIGN STANDARDS details the permit requirements, runoff standards, planting and stormwater management and flood damage protection requirements for new or retrofitting projects within city limits. For the pertinent UDC sections, please see:
Planning and City Development - City Of Gretna (gretnala.com)
The City of Gretna's Municode with updates can be found here:
https://library.municode.com/la/gretna/codes/code_of_ordinances

d) *Used motor vehicle fluid and household hazardous waste collection*

The "Household Hazardous Waste Program" was developed in previous reporting periods through research into existing City Building Codes, Building Permit Processes, City Ordinances, and City Practices. The document was submitted to EPA by the City of Gretna on February 17, 2003. Compliance certification was submitted to EPA by Jefferson Parish on August 1, 2003. Development of the "Household Hazardous Waste Program" was delayed by the permit evidentiary hearing and settlement agreement, which brought about a temporary staying of the permit and new programs during previous reporting periods.

The "Household Hazardous Waste Program" develops measures to be taken by the City of Gretna to prohibit the discharge or disposal of used motor vehicle fluids and household hazardous wastes and the intentional disposal into separate storm sewers of grass clippings, leaf litter, and animal wastes and to facilitate the proper recycle, reuse, or disposal of used motor vehicle fluids and toxics from households. The document also focuses on publicity and promotion of this program to all private residents of Gretna.

This topic was also included in public education efforts and programs developed in previous reporting periods. For the previous twelve (12) years, excluding Covid, Jefferson Parish and the copermittees sponsored annual Parish-wide poster/essay contest for grade-school students regarding "Nonpoint Source Pollution and Solutions." The contest encouraged students to investigate and develop solutions to prevent pollution generated from nonpoint sources, such as the illegal disposal of used motor vehicle fluid and other household hazardous waste. More about these efforts is provided in Section I.10.

Currently, the City of Gretna encourages oil recycling at the Jefferson Parish public dumping area located at 500 Wall Blvd. and 6250 Lapalco. This existing practice helps

to reduce/minimize the potential for storm water contamination. Existing City of Gretna Ordinances relating to this section are provided in the following table:

Ordinance	Description
Section 48-14	LBCS 4343 & 4347 Solid waste collection, combustion, landfills or separation/sorting of recyclable materials from non-hazardous waste streams: Collect or haul hazardous waste, non-hazardous waste, or recyclable materials, operate waste transfer stations; landfill, incineration or composing of non-hazardous solid waste, recycling facilities; septic tank installation and maintenance.
Section 82-7	Solid waste containers shall be water-tight. Hazardous waste must be handled in a manner approved by the Department of Public Works.
Section 82-11	Vehicles used for collection and transportation of solid and hazardous wastes shall be leak-proof and loaded and unloaded in a safe manner.

In addition to the requirements set forth here, The City of Gretna adopted a new Unified Development Code (UDC) on June 22, 2019. ARTICLE IV SITE DEVELOPMENT AND DESIGN STANDARDS details the permit requirements, runoff standards, planting and stormwater management and flood damage protection requirements for new or retrofitting projects within city limits. For the pertinent UDC sections, please see:
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e) *Illicit Discharge and Improper Disposal Location*

The "Illicit Discharge Inspection Program" was developed in previous reporting periods through research into existing City Building Codes, Building Permit Processes, City Ordinances, and City Practices. The document was submitted to EPA by the City of Gretna on March 1, 1999. A revised document was submitted to EPA by the City of Gretna on March 25, 1999. Compliance certification was submitted to EPA by the City of Gretna on March 1, 2000.

The "Illicit Discharge Inspection Program" summarizes ways in which the City discovers evidence of illicit discharges into the MS4, by manned telephone lines to handle citizen's complaints and regular system maintenance activities. The public is encouraged to look for evidence of pollution in the MS4 and is provided a telephone number to call to report any incidents in a yearly mail out to all Gretna citizens. In addition, the City of Gretna Department of Public Works performs system maintenance activities on a regular three-week cycle, visually screening the entire system for evidence of pollution.

The "Illicit Discharge Inspection Program" also includes the Dry Weather Screening Program, which is currently conducted in this reporting period by City crews at locations and frequencies pre-determined by the City Engineer. The testing company is Pace Analytical, 1000 Riverbend Blvd., Suite F, St. Rose, La. 70087. City crews under this program randomly investigate storm sewer outfalls during dry weather periods to check for illicit discharge or evidence of pollution in the MS4. The Dry Weather Screening Program includes a checklist for certain physical parameters of discharge from storm sewer outfalls.

In addition to the requirements set forth here, The City of Gretna adopted a new Unified Development Code (UDC) on June 22, 2019. ARTICLE IV SITE DEVELOPMENT AND DESIGN STANDARDS details the permit requirements, runoff standards, planting and stormwater management and flood damage protection requirements for new or retrofitting projects within city limits. For the pertinent UDC sections, please see:
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f) *Illicit Discharge and Improper Disposal Elimination*

The "Illicit Discharge Inspection Program" was developed in previous reporting periods through research into existing City Building Codes, Building Permit Processes, City Ordinances, and City Practices. The document was submitted to EPA by the City of Gretna on March 1, 1999. A revised document was submitted to EPA by the City of Gretna on March 25, 1999. Compliance certification was submitted to EPA by the City of Gretna on March 1, 2000.

The "Illicit Discharge Inspection Program" summarizes ways in which the City responds to and corrects evidence of illicit discharges into the MS4, by permitting processes and ordinance enforcement. Once an illicit discharge has been located through citizen's complaints, City inspections, or the dry-weather screening process, its source is identified by City crews. An industrial or commercial source originating illicit discharges into the MS4 is placed on notice by the City of Gretna Department of Public Works and asked to either eliminate the discharge or apply to the LDEQ for a permit authorizing the discharge, with interim measures taken to minimize the discharge. Any residential source of illicit discharges into the MS4 will be addressed by appropriate corrective or enforcement action as per the City of Gretna Code of Ordinances.

In addition to the requirements set forth here, The City of Gretna adopted a new Unified Development Code (UDC) on June 22, 2019. ARTICLE IV SITE DEVELOPMENT AND DESIGN STANDARDS details the permit requirements, runoff standards, planting and stormwater management and flood damage protection requirements

for new or retrofitting projects within city limits. For the pertinent UDC sections, please see:
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g) *Maintenance of a list of dischargers to the MS4 which have NPDES Permits*

A "List of Facilities Subject to Industrial and High Risk (I&HR) Inspections" was developed during the Part 1 and Part 2 Permit Application Process. The City of Gretna's update to this list as part of the I&HR Program was developed in previous reporting periods. The list was submitted to EPA by the City of Gretna on September 1, 1998 (see Section I.8 below).

Spill Prevention and Response - program to prevent, contain, and respond to spills that may discharge into the MS4.

The Spill Prevention and Response program is included as part of the "Roadway Maintenance Program," which was developed in previous reporting periods. Documentation was submitted to EPA by the City of Gretna on December 1, 1998. Compliance certification was submitted to EPA by the City of Gretna on February 24, 1999.

The "Roadway Maintenance Program" summarizes the City of Gretna's operations and maintenance policies and procedures to reduce the discharge of pollutants to the waters of the United States from its roadway system to the Maximum Extent Practicable. With regard to spills into the MS4, the City of Gretna Department of Public Works will provide spill containment in the drainage system and contact an environmental services contractor immediately, Pace Analytical, 1000 Riverbend Blvd., Suite F, St. Rose, La. 70087. The Department will also work with the Jefferson Parish Department of Emergency Management, the 911 response unit, and the City of Gretna and/or Jefferson Parish Fire Department to control fuel or flammable material spills.

Industrial and High Risk Facilities - program to identify and control pollutants in storm water discharges to the MS4 from targeted facilities, including priorities and procedures for inspection activities and monitoring, and maintenance of a list of industrial storm water dischargers to the MS4.

The "List of Facilities Subject to Industrial and High Risk (I&HR) Inspection" was developed in previous reporting periods. The list was submitted to EPA by the City of Gretna on September 1, 1998 which included fourteen (14) facilities within the City of Gretna.

A Master "List of Facilities Subject to I&HR Inspections" was provided by Jefferson Parish and included those facilities which discharge their storm water into the Jefferson Parish Storm Sewer System. These facilities include municipal landfills; other treatment, storage, or disposal facilities for municipal waste (transfer stations, incinerators);

hazardous waste treatment, disposal, and recovery facilities; industrial facilities subject to EPCRA Title III, Section 313; and any other industrial or commercial discharge the Parish determines are contributing a substantial pollutant loading to the MS4. The Permit requires that this list be maintained and updated as necessary, and that any facilities listed must be inspected at least once during the MS4 NPDES Permit term.

The "List of Facilities Subject to I&HR Monitoring (I)" was developed in previous reporting periods. The list was submitted to EPA by the City of Gretna on September 1, 1998, and included only one (1) facility within the City of Gretna.

The permit requires that the I&HR Program include priorities and procedures for inspections, monitoring, and establishing and implementing control measures for certain industrial or commercial discharges. The collection of analytical monitoring data may include: any pollutants limited in an existing NPDES permit for a subject facility, oil and grease, COD, pH, BOD(5), TSS, total phosphorus, TKN, nitrate plus nitrite nitrogen, and any information on discharges required under 40 CFR 122.21(g)(7)(iii) and (iv).

The "List of Facilities Exempt from I&HR Monitoring (II)" was developed in previous reporting periods. There are no facilities exempt from I&HR Monitoring in the City of Gretna. A letter to this effect was submitted to EPA by the City of Gretna on December 1, 1998.

The permit allows that some such facilities identified as I&HR facilities may be exempt from monitoring through a No Exposure Certification. Thus in lieu of analytic monitoring, the facility may instead provide certification that certain materials are not presently exposed to storm water for the certification period. The City must then conduct periodic facility inspections to verify the "no exposure" exemption.

The I&HR Inspection and Monitoring Programs were development in previous reporting periods. The City of Gretna submitted these programs to EPA on September 1, 1999. The City of Gretna submitted compliance certification of these programs to EPA on March 1, 2000.

Construction Site Runoff - requirement for use and maintenance of best management practices (BMP's), inspections and enforcement actions, education and training measures, and notification of potential storm water NPDES responsibilities to appropriate building permit applicants.

The "Construction Site Inspection Program" was developed in previous reporting periods. The document was submitted to EPA by the City of Gretna on December 1, 1998. Compliance certification was submitted to EPA by the City of Gretna on February 24, 1999.

The "Construction Site Inspection Program" was prepared to assist in the notification procedures and training of the City of Gretna staff in the inspection of construction sites. The Program summarizes the City of Gretna's procedures and practices to address

potential pollutants generated by construction sites and to reduce the amount of pollutants entering the waters of the United States from construction projects to the Maximum Extent Practicable.

The Program evaluates different alternatives available to control erosion and prevent sediments from entering the storm water drainage system. The scope of the Program includes: requirements for the use and maintenance of appropriate structural and non-structural BMP's to reduce pollutants discharged to the MS4 during the time of construction; inspection of construction sites and enforcement of control measures; appropriate education and training measures for construction site operators; and notification of appropriate building permit applicants of their potential responsibilities under the NPDES permitting program for construction site runoff.

Public Education - programs to promote, publicize, and facilitate: 1) public reporting of illicit discharges or improper disposal of materials, including floatables, into the MS4; 2) the proper management and disposal of used motor vehicle fluids and household hazardous wastes; and 3) the proper use, application and disposal of pesticides, herbicides and fertilizers by the public and commercial and private applicators and distributors.

In a previous reporting period, Jefferson Parish, the City of New Orleans, and the MS4 Copermittees also planned and hosted the third annual "EPA Region 6 MS4 Operators Storm Water Conference," held in New Orleans on June 5 thru 7, 2001. The Conference was attended by over 100 registrants, and featured many speakers and over 20 exhibitors and vendors. The session topics were geared towards environmental managers and staff of Phase I and Phase II municipalities and federal facilities, along with regulatory officials. There was also a session devoted entirely to the NPDES Storm Water Program for Phase II MS4 Operators. Finally, there was a field trip which featured visits to a drainage pumping station, a representative MS4 monitoring site, and a rehabilitated public boat launch/park site on Lake Pontchartrain. This conference was held in New Orleans again during a previous reporting period on July 5 thru 9, 2004, but the role of the copermittees was reduced to administrative and coordination duties.

Jefferson Parish and its copermittees discussed and developed other public education programs during previous reporting periods, described in the following paragraphs:

- Parish wide informational door hangers. The copermittees discussed the possibility of having volunteer groups go out into neighborhoods and distribute door hanger fliers on homes. The copermittees discussed the design, development, content, and distribution of such markers.

- Installation of storm drain markers instructing no dumping or illegal disposal. Jefferson Parish ordered 1,000 vinyl storm drain markers that read "Dump No Waste, Drains to Waterways," which were mounted on storm drains in various locations as part of a pilot project to discourage dumping down drains. The markers were installed by volunteer groups and Parish employees.

- Classroom presentations with Jefferson Parish's "Enviroscape" model. Jefferson Parish owns an educational water system model available for event or classroom education. The idea was discussed about making classroom presentations with this model in Jefferson Parish schools, and several presentations were made by Jefferson Parish during the current reporting period.

Additionally, the City of Gretna is involved in a public education campaign involving Parish wide informational mail out distributions required as a result of the City of Gretna's participation in the Community Rating Service (CRS) Program of the National Flood Insurance Program (NFIP). This program includes a once-a-year mail out distribution to those residents or businesses as required by the program. The topics of the mail outs are listed in the following table:

Topic	Distribution
Flood Insurance Rate Map Zone Information	Lending Institutions, Real Estate Agents, Insurance Agents
Floodplain Regulations, Flood Hazard, Flood Protection	Every Household *
Flood Insurance	Every Household
Building Permit Information, Drainage System Maintenance **	Every Household

* Defined as those residential addresses in the City of Gretna which receive utility bills.
** Some information pertinent to the MS4 Program is contained in this mail out, as follows:

> "In the City of Gretna a permit is required for any type of development including land fill and excavations. To determine what steps may need to be taken to obtain these required permits you should contact the Office of the Gretna Building Inspector at 363-1563 for commercial and residential development before any fill or excavation of any property. Illegal land filling, dumping, or excavation of land or drainage ways should be reported to this Office."

And further:

> "The City of Gretna Department of Public Works has a regular program of drainage system maintenance, whereby open canals and ditches and surface detention basins are mowed and inspected for blockages. You can help by cleaning catch basins in front of your property. Also avoid dumping debris in catch basins, drainage ditches, and canals. Debris can cause the drainage system to function improperly and cause flooding. Call the Gretna Department of Public works (Streets and Drainage) at 363-1579 if you have questions, specific drainage problems, or to report illegal

dumping. The City of Gretna has an ordinance that prohibits dumping of any material in the drainage system."

Monitoring Programs - including the Dry Weather Screening Program, the Wet Weather Screening Program, and the Industrial and High Risk Runoff Monitoring Program.

The Dry Weather Screening Program was included in the "Illicit Discharge Inspection Program," which was developed in previous reporting periods and submitted to EPA by the City of Gretna on March 1, 1999. The program was subsequently resubmitted to EPA by the City of Gretna on March 25, 1999 with a revised Dry Weather Screening Checklist. During previous reporting periods, the City of Gretna completed identifying watersheds, major outfalls, and land usage; and developed monitoring locations and schedules. During the current reporting period, City crews actively carried out the program in the field as developed by the City Engineer. A further explanation is provided in Section IV of this report.

The City of Gretna's Wet Weather Screening Program was developed in a previous reporting period on April 1, 1998. Compliance certification of implementation of the Wet Weather Screening Program was submitted to EPA by the City of Gretna on June 26, 1998. During previous reporting periods, the City of Gretna completed identifying watersheds, major outfalls, and land usage; and developed monitoring locations and schedules. During the current reporting period, City crews actively carried out the Program in the field as developed by the City Engineer. A further explanation is provided in Section IV of this report.

The City of Gretna's Industrial and High Risk (I&HR) Runoff Monitoring Program was developed during previous reporting periods. The City of Gretna submitted this program to EPA on September 1, 1999. The City of Gretna submitted compliance certification of this program to EPA on March 1, 2000.

The I&HR Program includes priorities and procedures for inspections, monitoring, and establishing and implementing control measures for certain industrial or commercial discharges. The collection of analytical monitoring data includes: any pollutants limited in an existing NPDES permit for a subject facility, oil and grease, COD, pH, BOD(5), TSS, total phosphorus, TKN, nitrate plus nitrite nitrogen, and any information on discharges required under 40 CFR 122.21(g)(7)(iii) and (iv).

The permit allows that some such facilities identified as I&HR facilities may be exempt from monitoring through a No Exposure Certification. Thus in lieu of analytic monitoring, the facility may instead provide certification that certain materials are not presently exposed to storm water for the certification period. The City must then conduct periodic facility inspections to verify the "no exposure" exemption.

The "List of Facilities Subject to I&HR Monitoring (I)" was developed in a previous reporting period and included only one (1) facility within the City of Gretna.

The "List of Facilities Exempt from I&HR Monitoring (II)" was developed in previous reporting periods. There is one (1) facility exempt from I&HR Monitoring in the City of Gretna. A letter to this effect was submitted to EPA by the City of Gretna on December 1, 1998.

Pollution Prevention/Good Housekeeping for Municipal Operation – to 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; and 2) train employees 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.

Training may be accomplished using training materials that are available from EPA, LDEQ, other organizations, or training material that Gretna has developed or adapted.

Gretna's. Pollution Prevention/Good Housekeeping Program includes:

(a) Operation and maintenance as an integral component of all storm water management programs. The intent is to improve the efficiency of all these programs and require new programs where necessary.

(b) Maintenance activities, maintenance schedules, and long-term inspection procedures for structural and non-structural storm water controls to reduce floatables and other pollutants discharged from the City's MS4.

(c) Controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage areas, salt/sand storage locations, and disposal areas operated by the City of Gretna, and waste transfer stations.

(d) Procedures for properly disposing of waste removed from the separate storm sewers and areas listed above (such as dredge spoil, accumulated sediments, floatables, and other debris).

(e) Ways that new flood management projects assess the impacts on water quality and examine existing projects for incorporating additional water quality protection devices or practices.

The City of Gretna continues to work with the guidance of Jefferson Parish and the LDEQ so that its facilities maintain the highest standards of pollution prevention.

Green Infrastructure/Low Impact Development – to evaluate the development of an incentive program to increase the use of green infrastructure while allowing flexibility for developers and designers to meet development standards.

The "Report Evaluating the Feasibility for Retrofitting Existing Flood Control Devices to Improve Water Quality" was developed in previous reporting periods. The document was submitted to EPA by the City of Gretna on June 1, 2001. The document compares each type of green infrastructure feasibility to its cost, its effectiveness of pollutant removal, and the type of pollutant it removed.

The Green Infrastructure/Low Impact Development measures which are explored and analyzed for use within the City of Gretna include detention basins, biofiltration, infiltration, filtration, and hydrodynamic devices. For developments greter than 10,000 square feet, retention/detention is required by the administration during site plan review process as a form of storm water management and control. A development is required to reduce the 10 year storm to below the pre-construction levels for commercial development over 10,000 square feet. One of the methods a developer may use to meet this requirement is to detain an adequate amount of runoff onsite though an onsite detention pond or detention within the onsite subsurface drainage system or sub-surface tanks that meter the runoff into the drainage system. Infiltration on site is also an acceptable method however the geologic conditions in the City of Gretna are typically not favorable for infiltration systems. Biofiltration and filtration are methods of pollutant load removal that are required by the City of Gretna. Current regulations require a specific removal rate (1.25" from 10 Year Rain Event) for developments greater than 10,000 Square Feet.

The City of Gretna has implemented Green Infrastructure and Low Impact Development requirements Citywide. The Heritage House at Huey P. Long and 11th Street will be redeveloped to add a parking area adjacent to 11th Street. The City has completed many Green Infrastructure Projects including Downtown Drainage Phases 1 and 2 where bioretention cells, Rain Gardens, permeable pavers and underground storage tanks where constructed. The 25th Street Resilience District includes increasing the storage capacity of the detention ponds in Grenta City Park and constructing bioretention celss and bioswales to reduce the runoff into the 25th Street Canal. The 4th Street Extension detention area where a large portion of city land has been bermed off between the Mississippi River to 4th Street and Richard Street to Ocean Avenue. have been increased to reduce runoff into the drainage system.

The City has adopted a Comprehensive Plan and Development Code rewrite. This revision to the Code of Ordinances will adjust the way the City encourages development in the City and will have a strong Green Infrastructure portion to guide future development in the City. The link for this UDC has been included throughout the body of this document.

In addition to the requirements set forth here, The City of Gretna adopted a new Unified Development Code (UDC) on June 22, 2019. ARTICLE IV SITE DEVELOPMENT

AND DESIGN STANDARDS details the permit requirements, runoff standards, planting and stormwater management and flood damage protection requirements for new or retrofitting projects within city limits. For the pertinent UDC sections, please see:
Planning and City Development - City Of Gretna (gretnala.com)
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Measureable Goals – to develop and implement Measureable Goals to assess the effectiveness of control measures used to satisfy the requirements of the programs which are part of the Storm Water Management Plan.

Measureable goals, which are required for each minimum control measure are meant to gauge permit compliance and program effectiveness. The measurable goals, as well as the BMP's should consider the needs and characteristics of the operator and the area served by its MS4.

Measurable goals are described in the "Pollution Prevention/Good Housekeeping for Municipal Operations Program". They are objective markers or milestones that will track the progress and effectiveness of the BMPs in maintaining or reducing the amount of pollutants in the MS4. Measurable goals allow permitting authorities to assess the effectiveness of storm water controls.

Measureable goals for the program will include:

- Reducing or eliminating the amount of pollutants discharged from the maintenance and upkeep of vehicles and equipment used by the City of Gretna.
- Limit or eliminate pollutants entering the MS4 by controlling runoff from municipal vehicle washing operations.
- Reduce the amount of pollutants entering the MS4 from surface streets and parking lots by the use of street sweepers.
- Reduce the amount of pollutants in the MS4 by regular cleaning of the storm drain system.
- Reducing or eliminating the amount of pollutants discharged into the MS4 through proper storage of hazardous materials.
- Reducing the amount of pollutants entering the MS4 by prevention of spills and responding quickly once spills occur.

APPENDIX A

SYSTEM MAINTENANCE PROGRAM

FOR

CITY OF GRETNA

NPDES MS4 PERMIT

May 2022

Prepared For:

The City of Gretna, Louisiana

Prepared By:

BURK-KLEINPETER, INC.
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New Orleans, Louisiana 70119
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SECTION 1

INTRODUCTION

This System Maintenance Program (SMP) has been prepared in accordance with the National Pollutant Discharge Elimination System (NPDES) Permit requirements. This SMP summarizes the City of Gretna's operations and maintenance policies and procedures to reduce the discharge of pollutants to waters of the United States. This section provides background information on the regulatory aspects of controlling storm water pollution as well as general requirements on the SMP as determined by the final NPDES Permit issued to the Jefferson Parish Municipal Separate Storm Sewer System (MS4).

1.1 BACKGROUND

A final NPDES Permit, No. LAS000201, was issued to the Parish of Jefferson, Louisiana Department of Transportation and Development—District 02, City of Gretna, City of Harahan, City of Kenner, and City of Westwego to discharge from all portions of the Jefferson Parish MS4 to waters of the United States in accordance with the Storm Water Management Program (SWMP). The final NPDES Permit was issued by the United States Environmental Protection Agency (USEPA) on January 17, 1997, and became effective on March 1, 1997.

The NPDES MS4 Permit requires Jefferson Parish and the incorporated Cities of Gretna, Harahan, Kenner, and Westwego to develop, revise, and implement a comprehensive SWMP. The SWMP shall include administrative, non-structural, and structural practices to reduce the discharge of pollutants form the Municipal Separate Storm Sewer System to the Maximum Extent Practicable (MEP).

One of the requirements of the SWMP is the development and implementation of a System Maintenance Program by each permittee. This document outlines the City of Gretna's policies and procedures to comply with the SMP portion of the NDPES permit.

Furthermore, Part II—Section A.1 "Structural Controls and Storm Water Collection System Operation" of the permit identifies the criteria for the development of the System Maintenance Program as follows:

"1. Structural Controls and Storm Water Collection System Operation: The Municipal Separate Storm Sewer System and any storm water structural controls shall be operated in a manner to reduce the discharge of pollutants to the Maximum Extent Practicable."

1.2 PURPOSE

This SMP was prepared to summarize the City of Gretna's operation and maintenance policies and procedures to reduce the discharge of pollutants into waters of the United States.

The practices included in this program include administrative actions such as reporting and ordinance control; non-structural controls such as inspection and open drainage canals maintenance; and structural alternatives such as pump stations bar screens.

1.3 THE CITY OF GRETNA'S JURISDICTION

The City of Gretna is responsible for the design, construction, and operation and maintenance of all storm water drainage canals and ditches within its city limits.

SECTION 2

CITY OF GRETNA'S DRAINAGE SYSTEM

2.1 STORM WATER DRAINAGE SYSTEM

The City of Gretna's topographical characteristics, below sea level elevations, have necessitated unique facilities such as protective levees, open drainage canals, and pump stations to provide adequate drainage and flood protection. Over the years, the City of Gretna separate storm sewer system has evolved into a system of over 7 miles of open drainage canals and ditches for collection and conveyance of storm water runoff.

The City of Gretna's drainage system serves approximately 2,495 acres of industrial, commercial, and residential areas. The City of Gretna's storm water system's service area is bounded on the north by the Mississippi River, on the west and south by the Jefferson Parish line, and on the east by the Orleans and Jefferson Parish lines.

In addition to the 7 miles of open canals and ditches, the City maintains approximately 40 miles of subsurface drain lines providing local drainage to the urban life style. Storm water runoff from residential, commercial, and industrial land areas are drained via drop inlet. Subsurface drainage lines convey storm water into open drainage canals. Finally, storm water is discharged into waters of the United States through several high capacity pump stations. The City of Gretna does not have any pump station facilities within its jurisdiction.

2.2 DRAINAGE PUMP STATIONS

Most of the land surface within the City is at or below sea level elevations. This topographical characteristic has created a "saucer" effect in the drainage basin. Since the City of Gretna is located within the limits of Jefferson Parish, the City of Gretna's drainage system outfalls into Jefferson Parishes system. The Jefferson Parish system, downstream from Gretna, outfalls into Bayou Barataria and the Intracoastal Waterway.

The Jefferson Parish Drainage Department currently maintains a constant water level in the canals to minimize fluctuating groundwater and to reduce regional subsidence and canal bank slope failures. The operation of the pump stations in this manner renders the open drainage canal system as very long, slender retention basins.

SECTION 3

CITY OF GRETNA DEPARTMENTS' RESPONSIBILITY

Operation and maintenance of the storm water drainage system is one of the responsibilities of the City of Gretna Department of Public Works (DPW). However, Jefferson Parish Department of Drainage Pump Stations assist in the maintenance and operation of the storm water collection system.

3.1 DEPARTMENT OF PUBLIC WORKS

The Department of Public Works (DPW) is the leading department for operation and maintenance of the storm water collection system. The DPW is responsible to operate the drainage system properly throughout the City to prevent areas of flooding during rain events. In addition, standard operating and maintenance practices minimize the potential for contaminated storm water runoff to enter receiving water bodies.

The DPW also responds to incidents involving hazardous materials that pose an exposure risk to any drainage lines. DPW will provide containment in canals and contact an environmental services contractor. The DPW works with the Department of Emergency Management, the 911 response unit, and various fire departments to contain spills and protect the environment.

3.2 JEFFERSON PARISH DRAINAGE DEPARTMENT

The Jefferson Parish Drainage Department is responsible for maintenance of the storm water collection system outside of the City limits into which the City waters outfall.

3.3 JEFFERSON PARISH DRAINAGE PUMP STATIONS DEPARTMENT

The Jefferson Parish Drainage Pump Stations Department's primary responsibility is to maintain and operate all drainage pump stations. This includes inspection and cleaning of bar screens at selected pump stations during heavy rainfall events to improve storm water removal.

SECTION 4

MAINTENANCE PRACTICES AND PROCEDURES

This section addresses the City of Gretna's operation and maintenance procedures to reduce the discharge of pollutants from the storm water collection system into receiving water bodies.

The City uses many programs to control discharges from its storm water collection system. These programs include structural controls and non-structural controls, such as source controls and controls through ordinance. Structural controls are used to increase the hydraulic capacity of the storm water drainage system. Non-structural controls are primarily through source control and elimination to reduce pollutants entering the storm water drainage system. Non-structural controls include periodic cleaning operations and monitoring programs.

4.1 ADMINISTRATIVE PROCEDURES

Administrative procedures presented herein include preventative actions through management and source control by implementing policies and ordinances that result in prevention of pollutant runoff. In addition, the City relies on citizens to report areas where trash and debris accumulate or illicit discharges occur within the storm water collection system for clean-up City personnel.

4.1.1 City of Gretna Ordinances

The City of Gretna uses its legal power to create, adopt, and implement ordinances to control discharges into the storm water collection system. Many of the ordinances implemented by the City of Gretna render it illegal and punishable by law to pollute the storm water collection system. Sections 6-120, 9-10, 16-58, 23-21, 23-44 and 23-47 of the City of Gretna Code of Ordinances address littering and dumping of debris or solid waste into the drainage system, illicit or unsanitary connections to the drainage system, and prevention of sanitary sewer overflows into the drainage system. In addition to the requirements set forth here, The City of Gretna adopted a new Unified Development Code (UDC) on June 22, 2019. ARTICLE IV SITE DEVELOPMENT AND DESIGN STANDARDS details the permit requirements, runoff standards, planting and stormwater management and flood damage protection requirements for new or retrofitting projects within city limits.

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4.1.2 Citizens Complaints

Public involvement and participation is a critical key to the success of improving storm water runoff quality. The creation of education programs is vital to inform citizens about the impacts that storm water runoff and discharges have on the water quality of the receiving body.

As a result of the City of Gretna's participation in the Community Rating Service (CRS) Program of the National Flood Insurance Program (NFIP), the City mails out annually to all citizens a brochure which includes a section on Drainage System Maintenance. This section includes a telephone number to call at the Gretna City Hall to report illegal land filling, dumping, or excavation of land or drainage ways. This section also encourages citizens to help the DPW's regular drainage system maintenance program by cleaning catch basins in front of their property and avoiding dumping of debris into the drainage system. A telephone number for the Gretna DPW is provided so that citizens may call to report illegal dumping into catch basins, drainage ditches, and canals.

The Gretna DPW maintains a manned telephone line for citizen complaints associated with the storm water collection system (e.g., blocked drainage systems, clogged catch basins). DPW crews are sent out to investigate on a work-order basis. These investigations serve to identify problem areas and facilitate the expedient scheduling and implementation of corrective action.

4.2 NON-STRUCTURAL CONTROLS

Non-Structural controls are implemented through BMP's that reduce the discharge of pollutant runoff. The City of Gretna's BMP's include visual inspections, litter control, drainage canal maintenance, and vegetative control.

4.2.1 Drainage Canals Inspections

City personnel visually inspect all major drainage canals every three weeks during the regular grass-cutting practice. Any debris, trash, overgrowth, or objectionable objects found in the drainage facilities are removed. In addition to this routine inspection, city personnel inspect drainage canals following parades and special events (e.g., Mardi Gras parades, etc.).

4.2.2 Subsurface Drainage System Maintenance

The DPW performs periodic or as-needed cleaning activities at catch basins, drop inlets, and subsurface drainage lines by using vacuum trucks. The primary objective is the removal of accumulated sediment and unwanted litter, such as cans, bottles, and trash.

Providing periodic removal of sediment, debris, and vegetation blocking catch basins and ditches improves the hydraulic capacity of the storm water drainage system. Also, this non-structural control reduces the discharge of pollutants (e.g., solids, floatables) to the receiving water body.

4.2.3 Canal Bank Stabilization

During the three-week inspection cycle, DPW personnel identify canal bank failures due to shoulder erosion. The DPW normally maintains a minimum 2:1 (preferably 3:1) slope in all canal banks to prevent bank failure. In addition, canal banks and rights-of-way are seeded to prevent erosion. Any areas of concern are brought to the City Engineer.

4.2.4 Drainage Canals Dredging

On an as-needed basis, the City Engineer or Public Works director will identify earthen drainage canals to be dredged to remove accumulated sediments and to improve the hydraulic flow through the canals. Dredging activities are normally performed with long reach excavators. The DPW seeds the canal bank and shoulder to control erosion. Any excess material is properly reused or disposed of.

4.2.5 Litter Control

Litter and trash accumulated within the storm water collection system is removed and properly disposed of by DPW personnel during standard three-week cycle inspections.

4.2.6 Vegetation Control

Vegetative cover slows down the velocity of storm water runoff and to reduce erosion and transportation of heavier solids and debris into the storm water drainage system. It also serves as a filter for potential pollutants that may otherwise enter the drainage system.

Vegetation control on canal banks is performed solely by of the canal right-of-way. Adequate accessibility is provided on all drainage canals for facilitating this operation. The DPW uses in-house personnel to maintain canal banks within Gretna.

APPENDIX B

GUIDANCE DOCUMENT FOR PROVIDING TECHNICAL CRITERIA FOR POST-CONSTRUCTION POLLUTANT CONTROLS IN AREAS OF NEW DEVELOPMENT AND RE-DEVELOPMENT

FOR

CITY OF GRETNA

NPDES MS4 PERMIT

May 2022

Prepared For:

The City of Gretna, Louisiana

Prepared By:

BURK-KLEINPETER, INC.
4176 Canal St.
New Orleans, Louisiana 70119
(504) 486-5901

JEFFERSON PARISH NPDES MS4 PERMIT
GUIDANCE DOCUMENT FOR PROVIDING TECHNICAL CRITERIA FOR POST-CONSTRUCTION POLLUTANT CONTROLS IN AREAS OF NEW DEVELOPMENT AND RE-DEVELOPMENT

THE CITY OF GRETNA
JEFFERSON PARISH, LOUISIANA

The *Construction Site Inspection Program* submitted in December 1998 provided Best Management Practices (BMP's) for minimizing or eliminating polluted runoff from construction sites, including stabilization, structural and non-structural methods, waste disposal practices, and off-site vehicle tracking. This document will provide a guideline for providing post-construction pollutant controls in areas of new development or re-development. It is intended for use by the City of Gretna on projects within its jurisdiction, and should be provided to any consultants or City personnel prior to commencing work on new development or re-development projects. "Post-construction pollutant controls" are defined for the purposes of this document as those requirements which insure that the water quality after development is at least no worse than that before development. These requirements include development permits, land use planning, utility inspections, waste disposal practices, greenspace provisions, storm water detention provisions, and public education.

In addition to the requirements set forth here, The City of Gretna adopted a new Unified Development Code (UDC) on June 22, 2019. ARTICLE IV SITE DEVELOPMENT AND DESIGN STANDARDS details the permit requirements, runoff standards, planting and stormwater management and flood damage protection requirements for new or retrofitting projects within city limits.

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DEVELOPMENT PERMITS

Currently, a permit is required for all new development or re-development prior to commencing construction activities. No structure or land within the City of Gretna shall be located, altered, or have its use changed without full compliance with the City Codes, which include having the Department of Inspections control filling, grading, dredging and other development through the building permit process. The City Building Inspector is required to review all construction plans and development permit applications, and ensure that all required prior approvals have been obtained from appropriate federal and state agencies. This is enforced by Section 6-117 of the Gretna Code of Ordinances. The application and review procedure for a development permit is outlined as follows:

- The application shall be submitted to the floodplain administrator (i.e., Gretna Building Inspector) on standard forms furnished by him. Attachments to the application may include plans (in duplicate) showing the location, dimensions, and elevations of the proposed improvements (both building and landscape alterations), as well as the location of the proposed improvements in relation to any areas of special flood hazard.

- Information required, in addition to the application, which apply to areas of new development or re-development includes a description of the extent to which any watercourse or natural drainage system will be altered or relocated as a result of the proposed development.

- Approval of the application is contingent upon a number of factors, including: the danger to life and property due to flooding or erosion damage; the danger that material may be swept onto other lands; the compatibility of the proposed use with existing and anticipated development; the expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters; and the availability of alternative locations not subject to flooding or erosion damage for the proposed use; and the relationship of the proposed use to the comprehensive plan for that area.

The Department of Public Works reviews all construction plans and specifications to ensure the installation and maintenance of erosion and sediment control for areas of new development or re-development. Failure to comply will result in re-submittal of satisfactory plans or stoppage of work.

The City of Gretna has several additional ordinances in-place which serve to control pollutant loading in areas of new development or re-development. Those permit-related ordinances include:

Ordinance	Description
Section 46-35	Control the alteration of flood plains or channels and development which may increase flood damage or cause erosion.
Section 94-132	Requires new and replacement sanitary sewer designs to minimize or eliminate discharge from the system into flood waters. On-site waste

disposal shall be located to avoid contamination from them during flooding. Subdivision proposals shall have public utilities located to minimize or eliminate flood damage.

Section 102-316 Prohibits filling of lots or land above the grade established by the City Engineer.

In addition to the requirements set forth here, The City of Gretna adopted a new Unified Development Code (UDC) on June 22, 2019. ARTICLE IV SITE DEVELOPMENT AND DESIGN STANDARDS details the permit requirements, runoff standards, planting and stormwater management and flood damage protection requirements for new or retrofitting projects within city limits.

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LAND USE PLANNING

Land use planning is another way in which the City may establish pollutant controls. Zoning and subdivision requirements for the thirteen (13) types of zoning districts defined within the City of Gretna are presented in Section 102 of the City of Gretna Code of Ordinances. Minimum requirements for and restrictions on land use, building size and type, lot size, area of yards and open space, and population density are included herein.

In addition to the requirements set forth here, The City of Gretna adopted a new Unified Development Code (UDC) on June 22, 2019. ARTICLE IV SITE DEVELOPMENT AND DESIGN STANDARDS details the permit requirements, runoff standards, planting and stormwater management and flood damage protection requirements for new or retrofitting projects within city limits.

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UTILITY INSPECTIONS

All developers who propose to discharge industrial wastes into the public sewers are required to fill out and industrial waste questionnaire to be filed with the plumbing inspector. Additional data such as quantity of flow and an analysis of the waste to be discharged into the sewer system must also be provided. Some City of Gretna Ordinances which address sanitary sewerage connections from new development are as follows:

Ordinance	Description
Section 102-262	Mobile home parks must provide connection to the water and sewer systems of the City.
Section 102-308	Subdivision developers shall extend water and sewer lines as necessary and insure that all sanitary requirements are met.
Section 94-101	Unlawful connections to any utility system are prohibited.
Section 94-70	Unsanitary discharges upon public or private property or to any natural outlet are prohibited. Where available, connection with the public sewer is required. Discharge from sewage treatment plants must be in accordance with the provisions of Chapter 23 of the City Code.
Section 94-71	Private sewage disposal is a viable option only when authorized and proper permits are obtained. Sanitary operation is required.
Section 94-93	Building sewers must be connected to the public sewer in accordance with all rules and regulations, and with a written permit from the plumbing inspector. Joints and connections must be gas and water-tight.
Section 94-102	The City Plumbing Inspector must approve all connections and discharges into the public sewer. Also makes it unlawful for any person to discharge stormwater, groundwater, roof runoff, or unpolluted industrial process water into any sanitary sewer. Also provides that the discharge of unpolluted industrial process water into a storm sewer or natural outlet is contingent upon approval by the plumbing inspector and state stream control commission. Provides a list of discharges prohibited to the public sewers. Requires that interception be provided (type and capacity to be determined by the plumbing inspector) in certain establishments to prevent the discharge of unsuitable materials into the sewerage system.

In addition to the requirements set forth here, The City of Gretna adopted a new Unified Development Code (UDC) on June 22, 2019. ARTICLE IV SITE DEVELOPMENT AND DESIGN STANDARDS details the permit requirements, runoff standards, planting and stormwater management and flood damage protection requirements for new or retrofitting projects within city limits.

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WASTE DISPOSAL PRACTICES

Some City of Gretna Ordinances which address waste disposal from new development are as follows:

Ordinance	Description
Section 42-72	Solid waste shall not be disposed at any site not approved by the City. Open dumping and burning of any solid wastes is prohibited within the City.
Section 42-135	Prohibits the accumulation on any property of trash, debris, weeds, unacceptable vegetative growth, etc. declared to be a nuisance or public health detriment. The owners of such properties will be cited by the Department of Inspections.
Section 94-122	Prohibits discharge, intentional or negligent, of any pollutant in or upon any public place within the City.

In addition to the requirements set forth here, The City of Gretna adopted a new Unified Development Code (UDC) on June 22, 2019. ARTICLE IV SITE DEVELOPMENT AND DESIGN STANDARDS details the permit requirements, runoff standards, planting and stormwater management and flood damage protection requirements for new or retrofitting projects within city limits.

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GREENSPACE PROVISIONS

Section 46-2 of the City of Gretna Code of Ordinances prohibits development of publicly-owned open areas greater than five acres in area, and requires that such areas be preserved as publicly-owned or controlled open space. This Ordinance serves to restrict the impervious area within the City, and promote greenspace and vegetated area, which helps to filter out impurities and pollutants prior to discharge into the drainage system.

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STORM WATER DETENTION PROVISIONS

Section 46-3 of the City of Gretna Code of Ordinances requires that for all proposed developments (other than single-family residential) totaling 10,000 square feet or more and for all single-family residences totaling five (5) acres or more, the ten-year storm event post-development rate of runoff is not to exceed the ten year storm event predevelopment rate of runoff. This requirement shall be fulfilled by means of on-site detention. The detention system shall be developed and constructed by methods approved by the City Department of Public Works and shall not release water from the site at a rate greater than the predevelopment rate of runoff. These detention basins also act as sedimentation basins which allow impurities and pollutants in the runoff to precipitate out before being discharged into the drainage system.

In addition to the requirements set forth here, The City of Gretna adopted a new Unified Development Code (UDC) on June 22, 2019. ARTICLE IV SITE DEVELOPMENT AND DESIGN STANDARDS details the permit requirements, runoff standards, planting and stormwater management and flood damage protection requirements for new or retrofitting projects within city limits.

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PUBLIC EDUCATION PROGRAMS

As a result of the City of Gretna's participation in the Community Rating Service (CRS) Program of the National Flood Insurance Program (NFIP), it must participate in a public education campaign which includes a once-a-year mail out distribution to those residents or businesses as required by the Program. Included in this public education campaign area the following issues:

> "In the City of Gretna a permit is required for any type of development including land fill and excavations. To determine what steps may need to be taken to obtain these required permits you should contact the Office of the Gretna Building Inspector at 363-1563 for commercial and residential development before any fill or excavation of any property. Illegal land filling, dumping, or excavation of land or drainage ways should be reported to this Office."

And further...

> "Also avoid dumping debris in catch basins, drainage ditches, and canals. Debris can cause the drainage system to function improperly and cause flooding. Call the Gretna Department of Public works (Streets and Drainage) at 363-1579 if you have questions, specific drainage problems, or to report illegal dumping. The City of Gretna has an ordinance that prohibits dumping of any material in the drainage system."

In addition to the requirements set forth here, The City of Gretna adopted a new Unified Development Code (UDC) on June 22, 2019. ARTICLE IV SITE DEVELOPMENT AND DESIGN STANDARDS details the permit requirements, runoff standards, planting and stormwater

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APPENDIX C

ROADWAY MAINTENANCE PROGRAM

FOR

CITY OF GRETNA

NPDES MS4 PERMIT

May 2022

Prepared For:

The City of Gretna, Louisiana

Prepared By:

BURK-KLEINPETER, INC.
4176 Canal St.
New Orleans, Louisiana 70119
(504) 486-5901

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SECTION 1

INTRODUCTION

This Roadway Maintenance Program (RMP) has been prepared in accordance with the National Pollutant Discharge Elimination System (NPDES) Permit requirements. This RMP summarizes the City of Gretna's operations and maintenance policies and procedures to reduce the discharge of pollutants to waters of the United States from its roadway system. This section provides background information on the regulatory aspects of controlling storm water pollution as well as general requirements of the RMP as determined by the final NPDES Permit issued to the Jefferson Parish Municipal Separate Storm Sewer System (MS4).

1.1 BACKGROUND

A final NPDES Permit, No. LAS000201, was issued to the Parish of Jefferson, Louisiana Department of Transportation and Development—District 02, City of Gretna, City of Harahan, City of Kenner, and City of Westwego to discharge from all portions of the Jefferson Parish MS4 to waters of the United States in accordance with the Storm Water Management Program (SWMP). The final NPDES Permit was issued by the United States Environmental Protection Agency (USEPA) on January 17, 1997, and became effective on March 1, 1997.

The NPDES MS4 Permit requires Jefferson Parish and the incorporated Cities of Gretna, Harahan, Kenner, and Westwego to develop, revise, and implement a comprehensive SWMP. The SWMP shall include administrative, non-structural, and structural practices to reduce the discharge of pollutants form the Municipal Separate Storm Sewer System to the Maximum Extent Practicable (MEP).

One of the requirements of the SWMP is the development and implementation of a Roadway Maintenance Program by each permittee. This document outlines the City of Gretna's policies and procedures to comply with the RMP portion of the NDPES permit.

Furthermore, Part II—Section A.3 "Roadways" of the permit identifies the criteria for the development of the Roadway Maintenance Program as follows:

"3. Roadway: Public streets, roads, and highways shall be operated and maintained in a manner to minimize discharge of pollutants, including pollutants related to deicing or sanding activities."

1.2 PURPOSE

This Roadway Maintenance Program was prepared to identify and describe the actions the City of Gretna takes to reduce the discharge of pollutants to the storm water drainage system from its roadway system inside the MS4 area. The major objectives of Gretna's Roadway Maintenance Program are to:

1. Conduct structural repairs to maintain the street paving and to avoid seepage of storm water through defective paving;
2. Conduct periodic cleaning of catch basins and drop inlets;
3. Conduct street sweeping to enhance source control and elimination; and
4. Control vegetation within street right-of-ways, roadsides, and medians.

The practices included in this program include administrative actions such as reporting and ordinance control; non-structural controls such as street sweeping and catch basin maintenance; and structural alternatives such as vegetative medians, and roadsides that serve as filters for storm water prior to entering the collection system.

1.3 THE CITY OF GRETNA'S JURISDICTION

The City of Gretna is responsible for the design, construction, and operation and maintenance of those roadways within the incorporated limits of the City of Gretna which are not State and Federal Highways. All State and Federal Highways within the City limits are operated and maintained by the Louisiana Department of Transportation and Development (LDOTD).

SECTION 2

CITY OF GRETNA DEPARTMENTS' RESPONSIBILITY

The City of Gretna uses the Department of Public Works for the operation and maintenance of the City's roadway system to control discharges of pollutants into the storm water collection system.

2.1 DEPARTMENT OF PUBLIC WORKS

The Department of Public Works (DPW) is primarily responsible for the operation and maintenance of the roadway system throughout incorporated City of Gretna. DPW personnel conduct minor structural street repairs including concrete slab repairs and replacement and/or patching and resurfacing of asphalt paving on damaged streets. Independent contractors are hired to conduct more extensive structural repairs based on plans provided by independent Engineering firms. All plans are reviewed by the City of Gretna DPW.

In addition to structural street repairs and supervision of independent contractors, the DPW is responsible for cleaning catch basins and drop inlets to reduce introduction of floatables into the storm water drainage system and to improve drainage during wet weather.

DPW personnel also respond to citizens' complaints to remove either accumulated trash and litter in their neighborhood or excess sediments and debris in catch basins and drop inlets. All material and debris remove by DPW personnel are properly disposed of at a permitted landfill.

The DPW is also involved with a number of programs that directly and indirectly affect storm water runoff quality. DPW personnel respond to incidents involving hazardous materials that pose an exposure risk to the storm drainage system. DPW will provide containment in the canals and contact an environmental services contractor. The DPW works with the Department of Emergency Management, the 911 response unit, and various fire departments to contain spills and protect the environment.

The DPW is also responsible for the maintenance of green areas located along the roadside and medians. Vegetative cover slows down the velocity of storm water runoff and reduces erosion and transportation of heavier solids and debris into the storm water drainage system. DPW is responsible for removing accumulated trash and debris from medians and roadside areas. Trash cans are placed along major roadways and at bus stops and are emptied periodically. Additionally, they provide assistance with many neighborhood cleanup projects.

Finally, DPW provides and administers all street sweeping contracts. Currently, one sweeper does major roadways and arterials in rotation. This helps to reduce the potential for stormwater contamination and pollutant loading to receiving waters, and well as provide aesthetic benefits.

SECTION 3

MAINTENANCE PRACTICES AND PROCEDURES

This section addresses the City of Gretna's operating and maintenance practices and procedures to reduce the discharge of pollutants from its roadway system into the storm water collection system.

The City of Gretna's practices in this program include administrative actions such as reporting and source control through the use of ordinances; non-structural controls such as street sweeping and catch basins maintenance; and structural alternatives such as vegetative medians and roadsides that serve as filters for storm water prior to entering the collection system.

3.1 ADMINISTRATIVE PROCEDURES

Administrative procedures presented herein include preventative actions through management and source control by implementing policies and ordinances that result in prevention of pollutant runoff. In addition, the City of Gretna relies on citizens' participation through reporting "problem areas" where trash and debris accumulate.

3.1.1 City of Gretna Ordinances

The City of Gretna uses its legal power to create, adopt, and implement ordinances to control discharges into the storm water collection system. Many of the ordinances implemented by Gretna render it illegal and punishable by law to create pollution which will end up in the storm water collection system. Section 9-5 of the City of Gretna Code of Ordinances prohibits littering in any public or private properties. Sections 9-7 through 9-10 address solid waste regulations. Sections 13-4, 15-3, and 15-14 prohibit accumulation of trash or debris on public or private property. Section 18-1 prohibits junk yards within the city limits. Finally, Section 19-4 requires that sand dealers shall prevent materials from entering the drainage system.

In addition to the requirements set forth here, The City of Gretna adopted a new Unified Development Code (UDC) on June 22, 2019. ARTICLE IV SITE DEVELOPMENT AND DESIGN STANDARDS details the permit requirements, runoff standards, planting and stormwater management and flood damage protection requirements for new or retrofitting projects within city limits.

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for new or retrofitting projects within city limits. For the pertinent UDC sections, please see:
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3.1.2 Citizens Complaints

Public involvement and participation is a critical key to the success of storm water runoff quality. The creation of education programs is vital to inform citizens about the impacts that storm water runoff and discharges have on the water quality of the receiving body.

Citizen complaints associated with street maintenance problems are investigated and corrected by the Department of Public Works (DPW). These investigations serve to identify problem areas and facilitate the expedient scheduling and implementation of corrective actions, such as litter collection and removal accumulated on Parish-owned vacant lots. These operation and maintenance practices are the responsibility of the DPW and serve to reduce pollutant loading to the receiving water body by reducing floatables in street runoff.

As part of the City of Gretna's participation in the Community Rating Service (CRS) of the National Flood Insurance Program (NFIP), the City mails out annually to all citizens a brochure which includes a telephone number at City Hall to call to report complaints associated with illegal land filling or dumping. The brochure explains that all such activities must be permitted through the Inspection and Code Enforcement Department (i.e., the Building Inspector's Office) of the City of Gretna.

3.2 NON-STRUCTURAL CONTROLS

Non-Structural controls are implemented through Best Management Practices (BMPs) with preventative actions to reduce the discharge of pollutant runoffs. The City of Gretna's BMPs include street sweeping, catch basins maintenance, mitigation cleanups, and vegetative control.

3.2.1 Street Sweeping

The Gretna DPW is responsible for providing and administering street sweeping contracts. One private contractor is selected to provide street sweeping services on major roadways and arterials in rotation. The Contractor's responsibility includes street sweeping, removal of trash and wind-blown debris, and removal of dead animals from streets. All collected trash and debris is properly disposed of at permitted landfill.

In addition to the regular maintenance program, streets are swept during seasonal events, such as Mardi Gras parades and special events. Immediate cleaning practices help reduce the pollutant loading into the open channel storm water collection system.

3.2.2 Catch Basin Maintenance

The Gretna DPW also conducts cleaning of trash and wind-blown debris accumulated in catch basins and drop inlets on an as-needed basis. Collected debris is properly disposed of at a permitted disposal facility. In addition to reducing pollutant runoff from debris accumulated in catch basins, this practice improves hydraulic capacity of the drainage system.

In addition to the Department's actions, citizens are encouraged, through annual mail-outs, to clean the catch basins in front of their own property and to report any illegal dumping to the Department of Public Works.

3.2.3 Chemical Management

3.2.3.1 Chemical Spills. Spills or incidents involving hazardous materials that pose an exposure risk to the storm drainage system are reported to the Gretna DPW. The DPW provides containment in the canal system and contact an environmental services contractor. DPW also works with the Department of Emergency Management, the 911 response unit, and various fire departments to contain spills and protect the environment.

3.2.3.2 Deicing Activities. Roadways in the southern part of the State of Louisiana have very little need for deicing. Therefore, deicing and sanding activities are not common practices in the City of Gretna. Deicing activities are predominantly conducted on either state or federal highways at overpasses and bridges. Deicing procedures on these roadways are the responsibility of the Louisiana Department of Transportation and Development.

3.2.3.3 Herbicide Management. The City of Gretna has developed a Pesticide, Herbicide, and Fertilizer Program. Currently, herbicide application is not conducted within the City limits, and all City-owned open areas, canal banks, and public rights-of-way are mowed on a regular three-week cycle.

3.2.4 Vegetation Control

The Gretna DPW is responsible for the maintenance of green areas located along the roadside and medians. Vegetative cover slows down the velocity of storm water runoff to minimize erosion and transportation of heavier solids and debris into the storm water drainage system.

The DPW uses in-house personnel to maintain and control vegetation on medians and roadside areas within the City limits. Gretna currently maintains approximately two million square feet of vegetative areas. The DPW properly disposes of all collected debris and litter. The DPW performs vegetation control and maintenance mowing every three weeks for all green areas within the City limits.

3.3 STRUCTURAL CONTROLS

The City of Gretna's structural controls include catch basin covers and vegetative areas to minimize the discharge of pollutant runoffs.

3.3.1 Catch Basin Covers

Catch basin covers and inlet grates prevent floatables, such as bottles, from entering the storm water collection system. Catch basins are cleaned by the DPW on an as-needed basis or in response to citizens' complaints.

3.3.2 Vegetative Cover

Vegetative cover slows down the velocity of storm water runoff to minimize erosion and provide filtration for pollutants that would otherwise enter the storm water collection system.

3.3.3 Pothole Repair

Potholes in roads are repaired by the DPW or a private contractor on as needed basis. This practice prevents the accumulation of water and oil from settling in these holes and subsequently, entering the storm drainage system.

APPENDIX D

GUIDANCE DOCUMENT FOR ASSESSMENT OF WATER QUALITY IMPACTS FROM NEW FLOOD CONTROL PROJECTS

FOR

CITY OF GRETNA

NPDES MS4 PERMIT

May 2022

Prepared For:

The City of Gretna, Louisiana

Prepared By:

BURK-KLEINPETER, INC.
4176 Canal St.
New Orleans, Louisiana 70119
(504) 486-5901

JEFFERSON PARISH NPDES MS4 PERMIT
GUIDANCE DOCUMENT FOR ASSESSMENT OF WATER QUALITY IMPACTS FROM NEW FLOOD CONTROL PROJECTS

THE CITY OF GRETNA
JEFFERSON PARISH, LOUISIANA

This document will provide a guideline for assessing the impact on water quality from new flood control projects. It is intended for use by the City of Gretna on projects within its jurisdiction, and should be provided to any consultants or City personnel prior to commencing work on new flood control projects. "Flood control projects," as defined for the purposes of this document, includes construction or modification of drainage pumping stations, storm water detention ponds, open drainage channels, or subsurface drainage trunk lines.

The City of Gretna implements some flood control projects through federal or state agencies (U.S. Army Corps of Engineers, Louisiana Department of Natural Resources, etc.), while others are funded through internal sources, with the City Engineer responsible for recommendation and specification of providing new drainage facilities; enlarging, cleaning, or covering existing drainage facilities; and connecting to existing drainage facilities (City of Gretna Code of Ordinances Sections 102-314 and 102-315). In either case, appropriate permitting is required and included as part of the Contractor's or Engineering Consultant's work (e.g., Federal Section 404 Permits). This permitting process includes a determination of the impact of the flood control project on receiving water quality. Section 42-69 of the Gretna Code of Ordinances places the Director of the Department of Inspections (i.e., the Building Inspector) responsible for ensuring that all such prior approvals have been obtained.

Internally, the City has several ordinances in-place which serve to minimize the impact of new flood control projects on receiving water quality. Responsibility lies with both the Department of Inspections and the Department of Public Works. Article II of the Gretna Code of Ordinances addresses the issue of flood damage prevention. Currently, a development permit is required for construction of flood control projects. The Department of Inspections controls filling, dredging, and other flood control projects through the development permit process. The application and review procedure for a development permit is outlined as follows:

- The application shall be submitted to the floodplain administrator (i.e., Gretna Building Inspector) on standard forms furnished by him. Attachments to the application may include plans (in duplicate) showing the location, dimensions, and elevations of the proposed improvements, as well as the location of the proposed improvements in relation to any areas of special flood hazard.

- Information required, in addition to the application, which applies to a flood control project includes a description of the extent to which any watercourse or natural drainage system will be altered or relocated as a result of the proposed improvements.

- Approval of the application is contingent upon a number of factors, including: the danger to life and property due to flooding or erosion damage, the danger that material may be swept onto other lands, and the expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters within the improved structures of channels.

- The Gretna Department of Public Works evaluates the construction project and notifies the applicant if a stormwater permit or stormwater pollution prevention plan is required.

The main impact on water quality from flood control projects such as canal modifications and detention pond construction is expected to be an increase in turbidity, sediment accumulation, or suspended solids due to scouring and erosion in high-velocity flows, or solids deposition in low-velocity flows. As such, drainage systems shall be designed and reviewed according to accepted standards of minimum and maximum velocities depending upon the type of soil encountered in the system. These shall determined by the City Engineer on a case-by-case basis for each flood control project. Vegetative cover shall be re-established as soon as possible to shield the underlying soil and physically hold the soil in place with the root systems. Where feasible, lining with geotextile fabric or concrete may be implemented to minimize exposure of earth to the drainage system.

In general, construction practices and maintenance of the construction site itself falls under other sections of the City of Gretna Code of Ordinances. Section 94-122 prohibits the discharge, intentional or negligent, of any pollutant in or upon any public place within the City. Section 42-135 prohibit the accumulation on any property of trash, debris, weeds, unacceptable vegetative growth, etc. declared to be a nuisance or public health detriment. The owners of such properties will be cited by the Department of Inspections. Upon the applicant's request, the City Engineer personnel may provide alternatives available to control the contamination of storm water runoff.

The Department of Public Works reviews all construction plans and specifications to ensure the installation and maintenance of erosion and sediment control at the construction site. Failure to comply will result in re-submittal of satisfactory plans or stoppage of work. The Building Official will visit the construction site during periodic inspection visits. As part of the inspection, the Official will investigate sources of potential storm water contamination and, with the assistance of the Department of Public Works, will verify the implementation and maintenance of construction site BMP's. Failure to comply will result in stoppage of construction and possible citation and prosecution.

In addition to the requirements set forth here, The City of Gretna adopted a new Unified Development Code (UDC) on June 22, 2019. ARTICLE IV SITE DEVELOPMENT AND DESIGN

STANDARDS details the permit requirements, runoff standards, planting and stormwater management and flood damage protection requirements for new or retrofitting projects within city limits.

In addition to the requirements set forth here, The City of Gretna adopted a new Unified Development Code (UDC) on June 22, 2019. ARTICLE IV SITE DEVELOPMENT AND DESIGN STANDARDS details the permit requirements, runoff standards, planting and stormwater management and flood damage protection requirements for new or retrofitting projects within city limits. For the pertinent UDC sections, please see:
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APPENDIX E

REPORT EVALUATING THE FEASIBILITY OF RETROFITTING EXISTING FLOOD CONTROL DEVICES TO IMPROVE WATER QUALITY

For

THE CITY OF GRETNA
JEFFERSON PARISH, LOUISIANA

In Accordance with the requirements of the

NPDES MS4 PERMIT

May 2022

Prepared For:

The City of Gretna, Louisiana

Prepared By:

BURK-KLEINPETER, INC.
4176 Canal St.
New Orleans, Louisiana 70119
(504) 486-5901

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SECTION 1

INTRODUCTION AND BACKGROUND

1.1 INTRODUCTION

This report was developed by the City of Gretna as a co-permittee to Jefferson Parish, Louisiana, to meet the requirements of Part II.A.4 of Jefferson Parish's Municipal Separate Storm Sewer System (MS4) permit issued by the United States Environmental Protection Agency (USEPA) Region VI. This permit has been created by the USEPA under the National Pollutant Discharge Elimination System (NPDES) to address the water quality issues associated with the storm water runoff from the drainage areas included in the MS4 permit. The requirement for this report is stated in Table III.A of the MS4 permit as follows:

> "Submit summary report of evaluations conducted for existing flood control devices to determine the feasibility of retrofitting to benefit water quality."

The meaning of each phrase from the above permit language will be expanded upon in the next section of this document.

1.2 PROJECT BACKGROUND

The nature of the drainage and flood control system in the City of Gretna and Jefferson Parish as a whole is unique, in that the area is surrounded by flood and hurricane protection levees, and the natural ground elevations are typically at or below mean sea level (MSL). There are two levee systems, with the levees bordering the Mississippi River at an approximate elevation of 28 feet above MSL, and the levees bordering the Barataria Basin and adjacent Parishes averaging about 16 feet above MSL. The difference in levee elevations is due to the separate nature of the threats against which they protect. The River levees are intended to protect against flood stage water levels in the Mississippi River to the north, while the other levees are intended to protect against hurricane induced tidal surges from the Barataria Basin to the south.

As a result of this system of levees and the relatively low-lying natural ground, there is no gravity drainage discharge outlet from within the Jefferson Parish MS4; storm water is pumped out. In the City of Gretna, rainfall is removed by a system of open and closed conveyance channels, which transport the runoff to the Parish-owned drainage outfall pumping stations. High volume, low-lift pumps are used at the pumping stations to lift the water from the canals to the higher water surface elevation of the lakes, bayous and canals of the Barataria Basin. At this time there are no MS4 discharges to the River.

1.3 PURPOSE OF REPORT

This report will describe the existing flood control devices, identify those agencies responsible for the construction and maintenance of those devices, summarize potential retrofits, and address the feasibility of implementing those retrofits within the City of Gretna. Summaries of the process by which flood control projects, both current and new, are initiated were described in the *Guidance Document for Assessment of Post-Construction Water Quality Impacts from New Flood Control Projects* and the *Guidance Document for Post-Construction Pollutant Controls in Areas of New Development and Re-Development* (MS4 Guidance Documents).

The City of Gretna has ongoing flood control projects, which include in their design any possible water quality impacts in addition to drainage and flood relief. These projects and ongoing operational procedures of the City of Gretna Department of Public works were used as the basis for water quality assessments presented in this report.

In addition to the requirements set forth here, The City of Gretna adopted a new Unified Development Code (UDC) on June 22, 2019. ARTICLE IV SITE DEVELOPMENT AND DESIGN STANDARDS details the permit requirements, runoff standards, planting and stormwater management and flood damage protection requirements for new or retrofitting projects within city limits.

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SECTION 2

DEFINITIONS

The requirements of this report as established by the USEPA and stated in the MS4 permit need to be evaluated by its component sections. These component sections are as follows:

- *"existing flood control devices"*
- *"retrofitting"*
- *"feasibility"*

2.1 EXISTING FLOOD CONTROL DEVICES

For the purposes of this feasibility report, existing flood control devices are defined as the main drainage transmission conduits, open or closed, and the minor drainage system, including local drainage pipes, street gutters and ditches, and drainage catch basins. These devices may affect the receiving waters of the MS4 and therefore should be assessed for potential retrofit in order to benefit water quality. The levee system serves as flood control from potential storm surges from the Mississippi River and the Barataria Basin, and has no direct impact on the quality of storm water. The levee system is therefore not assessed for potential retrofit.

2.2 RETROFITTING

Retrofitting is defined as the changes made to the existing flood control devices within the City of Gretna boundaries. The potential retrofits discussed in this report are evaluated to determine if the impacts on storm water quality are beneficial or if they do not merit further study. Potential retrofits to the existing flood control devices to benefit storm water quality include disinfection, detention, biofiltration, infiltration, filtration, and hydrodynamic devices.

2.3 FEASIBILITY

Each potential retrofit was evaluated for feasibility of installation within the City of Gretna, based on the following criteria. The feasibility of each retrofit included the benefit on storm water quality, the treatability for the pollutants of concern, the potential to be located within the City, the economic feasibility (including construction costs and operation and maintenance costs), and operational requirements. The feasibility also addresses whether the retrofits would impede flood waters. Feasible retrofits would require further study prior to installation or implementation, and retrofits that are not feasible do not merit further study.

SECTION 3

EXISTING FLOOD CONTROL DEVICES

Past and proposed future flood control projects performed in the City of Gretna were reviewed to determine the types of projects that have occurred in the past and are expected to occur in the future. Many of these projects were previously discussed in the MS4 Guidance Documents. This section reviews current and potential flood control projects and the water quality considerations performed by the agencies that implement these projects.

3.1 HISTORICAL AND ANTICIPATED FUTURE PROJECTS

The City of Gretna Department of Public Works (DPW) has control and participation in the improvement, operation, and maintenance of the City's drainage systems. The City routinely undertakes projects to improve the hydraulic transmission capacity of the various open or closed drainage systems and sometimes constructs new conveyance systems or other drainage projects. Because of the current degree of completeness of the system, most new (future) projects focus on increasing canal capacity. The City of Gretna does not own or operate any drainage outfall pumping stations or storm water treatment facilities; these are operated by Jefferson Parish.

3.1.1 The SELA Program

Many major ongoing flood control projects within Jefferson Parish are implemented under the Southeast Louisiana Urban Flood Control Program, commonly referred to as SELA. This program was established as a cooperative agreement project between the Parish governments and the Corps. SELA is a 270 million-dollar flood control program in the Parish. The numerous projects being constructed under this program include canal widening, canal lining, pumping station capacity increases, and a project to demonstrate the water quality impacts of treating the first flush storm water from an isolated, urban drainage basin. These projects are all underway and are jointly managed by the Corps and the Parish. There are two such projects planned or underway for the City of Gretna.

The SELA project was reviewed by the Corps for environmental impact at the reconnaissance stage, as described in the Reconnaissance Study entitled *Jefferson and Orleans Parishes, Louisiana Urban Flood Control and Water Quality Management Reconnaissance Study*, July 1992, (Reconnaissance Study). When the project was funded by Congress for implementation, the Corps and other related agencies involved in the Coastal Zone Management process reviewed the projects, and subsequently issued permits for construction. This review process included extensive evaluations of the current water quality and ecosystem diversity, and assessments of the effects of the proposed projects. This review process also specifically included certification that construction of the project and its future operation will not violate the statutory water quality standards of the state for the receiving waters.

3.1.2 Projects Performed by the City of Gretna Department of Public Works

The most recent flood control projects undertaken by the City of Gretna include enclosing open canal systems with subsurface pipe culverts, concrete-lining existing open canals, and installing drainage detention ponds. The City of Gretna DPW is entirely responsible for improving, operating, and maintaining the MS4 system (canals, subsurface drain lines, drop inlets and catch basins); and is largely responsible for identifying future flood control projects. The City retains the service of a private Engineering Consultant to perform hydraulic analysis, cost estimates, and design on these drainage improvements. Construction of the projects are bid out publicly.

As described in previous documents, the existing drainage canals within the City of Gretna are either earthen or concrete canals. Both types of canals, regardless of construction, serve as retention basins and provide some level of pollutant removal.

An interconnected network of canals may function essentially as biofiltration systems by providing sedimentation and some additional pollutant removal prior to discharge of storm water. Sedimentation is evidenced by the regular need for dredging the canals to remove the accumulated sediment. Many of the canals are earthen with grassy slopes and bottoms, which may provide an enhanced level of pollutant removal. However, because these types of canals tend to harbor the wildlife that destroy the banks by burrowing, and increase fecal counts due to their waste products, the water quality benefit from the grassed slopes may be negligible.

Other canals have been reinforced with concrete side slopes and riprap bottoms for stabilization and increased capacity purposes. As mentioned above, the City is currently retrofitting some of the earthen canals with concrete and increasing the capacity of the canals. Concrete canals have a smoother surface than the earthen canals. The smoother surface of concrete reduces the energy required to pump storm water through the canals to the receiving water bodies. Concrete canals, however, do not benefit the quality of storm water whereas earthen canals provide a degree of biofiltration.

The DPW is also responsible for developing and implementing the programs required by the MS4 Permit. Previous MS4 Guidance Documents have described the City's requirements for storm water detention systems. The City has passed a resolution requiring that storm water runoff detention provisions be included in all proposed developments (both new and re-development), other than single family residential, totaling ten thousand square feet or more (all phases), and all single family residential developments totaling five acres or more (all phases). In many cases, the requirements of the ordinance are met through storm water retention or detention, typically in parking lots or constructed ponds. Recreational areas are also listed as potential areas for storage of rainfall, and their development has also been restricted by Ordinance.

As discussed in the MS4 Guidance Documents, the City has also passed "greenspace preservation" ordinances through zoning. These green spaces serve as filter strips, which improve storm water quality.

3.2 SUMMARY

As noted in previous MS4 Guidance Documents, the City of Gretna has made significant efforts to provide water quality improvements in the existing urban drainage system. The City has made additional efforts to improve storm water quality that are not retrofits to the existing flood control system. Non-retrofit efforts to improve storm water quality include techniques for cleaning drainage system components, preventing non-storm water discharges to the drainage system in the first place (source controls), public education on storm water quality, and the utilization of treatment controls to slow the rate of runoff or remove pollutants.

Through the years, numerous flood control projects have been evaluated and/or implemented within the City of Gretna. To date, the implementation projects designed to prevent flooding and to improve drainage and pumping capacities have taken precedence over projects designed specifically for water quality improvement. However, the water quality and environmental effects of these projects are studied and evaluated during the reconnaissance phase of each project. At this point, water quality enhancing modifications to the proposed project are made, if applicable.

For a list of ongoing-completed flood control-Green Infrastructure Projects, please refer to the Annual Reports from 2017-2021.

SECTION 4

POTENTIAL RETROFITS

4.1 INTRODUCTION

Potential retrofits for improving storm water quality, or pollutant controls, typically occur within six general categories: 1) chemical addition, 2) detention, 3) biofiltration, 4) infiltration, 5) filtration, and 6) hydrodynamic devices. An effective system of pollutant controls addresses point as well as non-point or scattered sources of pollutants throughout the drainage area that cannot be effectively controlled at the source.

For each of the general categories, a description is given for the retrofit devices, the pollutants that are removed, the feasibility of retrofit installation within the City of Gretna's existing flood control devices, and qualitative typical costs (construction and maintenance) associated with the retrofits. Ultimately, the City of Gretna Department of Public Works (DPW), which operates and maintains the existing flood control devices, will determine the feasibility of each potential retrofit solution, including economic and physical construction concerns as well as the ability of the retrofit to allow bypass of peak storm water flows and not interfere with the normal and efficient operation of the drainage system or device.

The pollutants of concern were determined from the list of parameters that are monitored as a part of the requirements of the NPDES permit. The pollutants of concern include: Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), oil and grease (O&G), Total Suspended Solids (TSS), Total Dissolved Solids (TDS), Total Kjeldahl Nitrogen (TKN), total nitrite, total nitrate, total ammonia, total phosphorus, dissolved phosphorus, total cadmium, total copper, total nickel, total lead, total zinc, fecal coliform, and diazinon.

Since the City of Gretna's drainage system flows directly into Jefferson Parish-owned canals, without any control structures, and ultimately into the Parish-owned drainage pumping station network, some of these water quality controls may be implemented by the Parish at their control facilities since they are out of the City's jurisdiction.

4.2 CHEMICAL ADDITION

The category of chemical addition systems that benefit storm water quality can be further classified as disinfection systems or solids removal systems. Both disinfection and solids removal systems require chemical storage tanks and chemical feed equipment. These systems would require a secure location for the installation of the equipment and a risk management plan to address the maintenance procedures to mitigate and respond to potential chemical releases. The chemicals used for disinfection and solids removal cause an environmental and health concern if released into the atmosphere. The chemical systems require special handling by, and training of, the maintenance personnel.

4.2.1 Disinfection

Disinfection is used to treat storm water prior to discharge into receiving water bodies. Disinfection systems installed within the existing flood control devices would need to be located within a large secure, monitored area, such as an existing drainage pump station.

The City of Gretna does not own or operate any storm water treatment facilities where disinfection, chlorination, ozonation, or other such treatment system would typically be accomplished.

4.2.2 Solids Removal

Chemical precipitation involves the addition of chemical precipitants (e.g., alum, ferric chloride, ferric sulfate, ferrous sulfate, or lime) to alter the physical state of dissolved and suspended solids and to facilitate their removal by sedimentation. These chemicals may be added to storm water in a dry form or as liquids. After the chemicals have been added to the water supply and floc has formed and settled, the solids must be removed from the system.

Solids removal systems installed within the existing flood control devices would need to be located within a large secure, monitored area, such as an existing drainage pump station.

The City of Gretna does not own or operate any storm water treatment facilities where chemical addition or solids collection and disposal would typically be accomplished.

4.3 DETENTION

Detention facilities store storm water runoff for a period of time prior to its release through an outfall to a receiving water body. The effect of detention facilities is to retard peak runoff flows during a rain event by allowing larger inflows into the facility than the outlet control structure (e.g., V-notch weir, orifice, or undersized culvert) is designed to release, thereby reducing storm water flooding in contributory drainage basins.

Pollutants are removed in detention facilities by allowing particulates and solids to settle out of the water as flow velocities are reduced in the basin. The pollutants removed by detention facilities primarily include settleable materials, and pollutants that are absorbed onto the surface of these materials. Removal of total suspended solids, bacteria, metals and organic matter, plant nutrients (e.g., total phosphorous and nitrogen) and oil and grease may also be accomplished, depending on the detention time of the pond, the soil characteristics beneath and surrounding the pond, and the intensity of the particular storm event.

Another advantage of detention ponds is that they release water at a controlled velocity which is more suitable for the downstream earthen canal systems, thereby reducing scouring and erosion downstream.

A typical detention facility has minimal design and construction requirements, and they are relatively easy to maintain. To prevent the outlet control from clogging with debris, precautions must be taken in the design of the system, and they should be maintained frequently. Maintenance includes regular inspection and frequent mowing and cleaning to unclog the basin inlet and outlet. Sediment should also be cleaned out every 10 to 20 years, depending on the depth of the basin and solids retention capacity.

There are currently four storm water detention ponds within the City of Gretna, which are excavated earthen basins connecting to the main drainage system through a controlled outlet as described above. The City of Gretna currently requires that storm water runoff detention provisions be included in both new and re-developments, with the size and outlet determined by hydrologic calculations of pre-development vs. post-development runoff. Future constructed retention ponds would typically be required for large-scale commercial developments, and thus located on private property with the City not accruing construction or maintenance costs. Detention facilities designed for small catchment areas are feasible for retrofit installation where land and outlet access is available.

4.4 BIOFILTRATION

Biofiltration reduces pollutant loadings by filtering the storm water through vegetation. The vegetation removes contaminants through the uptake of nutrients and metals, and by physically slowing water flow to allow for additional sedimentation of solids. Biofiltration processes include constructed and natural wetlands, earthen canals, filter strips, and vegetated swales (planted with grass or other low-maintenance vegetation).

Biofiltration currently takes place on a small scale in the City of Gretna, since most of the drainage canal system, including the detention ponds, are earthen, and vegetative lining accomplishes some removal of pollutants. The vegetative lining removes pollutants by encouraging infiltration into the ground and by adsorption. A drawback of this type of canal system is that it is not as efficient in conveying storm water as a lined channel.

In addition, the maintained vegetative banks of the canal system accomplish some effects of filter strips for overland runoff into the canal system. They reduce pollutants from surrounding urban runoff such as sediment, organic matter, plant nutrients, and trace metals by the filtering action of the vegetation, infiltration of pollutant-carrying water, and sediment deposition. Vegetated canal banks reduce overland runoff velocity into the conveyance channel, thus allowing particles to settle out onto the ground prior to entering the channel. Further, this reduction in velocity helps to reduce side-bank erosion of the earthen canal system.

Both open and closed drainage systems in the City of Gretna are designed to maintain velocities ranging between a minimum and maximum value for a designated rain event (typically the 10-year recurrence interval). Minimum velocities are important in closed systems to ensure the "self-cleaning" function of the flow to wash out solids and depositions on the pipe; and

maximum velocities are important in designing open systems to prevent scour and erosion of the earthen channel.

Filter strips do not have high construction costs and have low maintenance requirements. Overall, vegetative filter strips are feasible for retrofit installation in small catchment areas within the City where there are impervious surfaces adjacent to an open canal or detention pond. The City of Gretna DPW currently mows and maintains the earthen banks of canals, detention ponds, and public places. Vegetative strips retrofitted to an impervious surface on private property would be maintained by the property owner.

There are not wetland areas of sufficient size within the City of Gretna to effectively accomplish constructed forms of biofiltration such as constructed wetlands.

4.5 INFILTRATION

Infiltration systems store storm water runoff and allow the water to percolate or infiltrate into the ground. These systems reduce peak storm water flow by recreating the natural infiltration that would occur without impervious surfaces. These devices also provide control of peak flows from storm water and protection of stream banks from erosion due to high flows.

Geologic conditions in the City of Gretna are typically not favorable for retrofitting using infiltration systems. The ground water table is typically too high, and the soil types are not sufficiently porous (clays and silts) to allow free flow of water out of the infiltration system.

4.6 FILTRATION

Filtration systems include membrane filters and media filters, and manufactured catch basin inserts. Filters can be designed to remove a particular pollutant.

4.6.1 Filter Systems

Filtration systems include membrane filters and media filters. The most commonly used filter media includes sand, peat, and/or synthetic filter media. Activated carbon has been used in combination with sand and is very good in controlling most pollutants for both treated and pre-settled storm water.

The City of Gretna does not own or operate any storm water treatment facilities where filtration would typically be accomplished.

4.6.2 In-Line Filtration Devices

In-line filtration devices include catch basin inserts. The filtration devices use either media or synthetic membranes to remove suspended solids, oil and grease, organic matter, and, to some

extent, bacteria. The catch basin filter inserts are typically prefabricated for installation into existing catch basins.

The catch basin filter inserts have relatively low construction cost for individual units. The cost to install a filtration device in each catch basin, however, is not practical. If filter devices are used within the City of Gretna, catch basins should be evaluated to determine the most effective location. Areas within the City that historically receive large quantities of solids or litter may benefit from the devices.

Maintenance on the devices would be required as deemed necessary. Depending on the quantity of solids collected, this could range from weekly to monthly maintenance. Maintenance includes removal of sediment and debris that could clog the filters, and periodic replacement of the filter media. The catch basin inserts have demonstrated long lifetimes and consistent pollutant removal when properly maintained. If clogged, however, they could pose local flooding problems by impeding the flow of storm water.

The catch basin filter inserts can feasibly be installed as retrofits in limited catchment basins within the City of Gretna.

4.7 HYDRODYNAMIC DEVICES

Hydrodynamic devices use the flow of water to assist with physical separation of pollutants. Hydrodynamic designs include screens and catch basin inserts of several varieties. Some of these are actual inserts, i.e. filter cartridges, while others are replacement structures. Most contain some sort of treatment mechanism associated with sedimentation, filtration, or gravitational separation of oil and water. Hydrodynamic devices are ideal for use in high traffic parking lots, industrial maintenance facilities, gas and service stations, highway storm water runoff, and pretreatment for subsequent BMP's.

The catch basin separator inserts effectively remove suspended solids and oil and grease present in low storm water flows. A bypass for peak flows is typically included in the design of the inserts. The inserts are designed for installation as a retrofit into existing catch basins, and they can easily be inserted into the existing flood control devices within the City of Gretna. The catch basin inserts are also relatively low cost for individual units. The cost to install a separation insert in each catch basin, however, is not practical. If separation devices are used within the City, catch basins should be evaluated to determine the most effective location for the separators. Areas within the City that historically receive large quantities of solids or litter may benefit from the devices.

Maintenance on the devices would be required as deemed necessary, depending on the drainage area served, street cleaning practices and efficiency, and the frequency of storm events. Maintenance includes cleaning the chambers to remove the collected solids. Depending on the quantity of solids collected, the drainage areas, street cleaning practices, and frequency of storm events, this could range from weekly to monthly maintenance. The catch

basin inserts have demonstrated long lifetimes and consistent pollutant removal when properly maintained. If clogged, however, they could pose local flooding problems by impeding the flow of storm water.

The catch basin separator inserts can feasibly be installed as a retrofit in selected areas of the City of Gretna within the existing flood control devices. In addition, the City may require or encourage developers to install catch basin inserts in commercial areas and parking lots.

SECTION 5

CONCLUSIONS

5.1 GENERAL

An effective system of pollutant controls addresses point as well as nonpoint sources of pollutants throughout the drainage area that cannot be effectively controlled at the source. It is also important to address the benefit of installing more than one type of pollutant control. A combination or a system of pollutant controls addresses the removal of a wider range of pollutants of concern. It is recommended that the City of Gretna determine the feasibility of installing a combination of retrofit devices prior to implementation of a specific option.

The pollutant concentration during periods of peak flow is lower than the concentration of pollution during low storm water flows. Pollutants are diluted by larger quantities of water captured during high intensity storm events. Thus, the ability of potential retrofits to treat peak flows is not as significant as the ability to treat low flows.

5.2 FEASIBILITY SUMMARY

The storm water treatment devices described previously were evaluated for retrofit feasibility within the City of Gretna according to their ability to treat low storm water flows (high pollutant concentrations) and accommodate or allow bypass of peak storm water flows. Each retrofit category was also evaluated for the feasibility of physically locating the technology within the existing flood devices or within the City of Gretna boundaries. Qualitative construction costs and operations and maintenance requirements were also evaluated for each category.

The City of Gretna believes the following retrofits to the existing flood control devices are ranked by initial assessment of feasibility, as described below, and merit further study prior to incorporation into a retrofit program. The potential retrofits are listed in Table 5-1 in order of most feasible to least feasible.

Table 5-1
Summary of Feasible Retrofits

Retrofit	Comparative Cost	Pollutant Removal	Overall Feasibility
Filter strips	Moderate to low construction and maintenance costs	Low to moderate removal of Solids, O&G, Phosphorous, Metals, Fecal Coliform	Restricted to low density areas
Detention basins	Moderate to high construction and moderate maintenance costs; solids removal after 10 to 20 years	Moderate to high removal of BOD, COD, O&G, Solids, Nitrogen, Phosphorus, Metals, Fecal Coliform	Limited to areas of available land
Hydrodynamic devices	Moderate construction and high maintenance costs; frequent maintenance	Moderate to high removal of O&G, Solids; low removal of Metals	Applicable to small developments
Filtration system – catch basin inserts	Moderate to high construction and high maintenance costs; frequent maintenance	Moderate removal of O&G, Solids; low removal of Metals	Applicable to small developments

BOD – Biochemical Oxygen Demand
O&G – Oil and Grease

Vegetative filter strips are effective in removing pathogens, suspended solids, organic matter, metals, and oil and grease. These biofilters can feasibly be located within the existing flood control system to treat small catchment areas. Filter strips allow for bypass of flood water. They also have low construction costs and maintenance requirements. Filter strips and swales are feasible retrofits for small catchment areas.

Detention basins provide limited removal of settleable solids and provide treatment by biological uptake if facilities are earthen basins. Basins allow for bypass of flood waters and also control flood waters. Small detention facilities can feasibly be located within the existing flood control system to treat small catchment areas. The associated construction costs and maintenance requirements are relatively low. Small detention facilities are considered feasible retrofits in limited areas.

Hydrodynamic devices can effectively remove suspended solids, oil and grease. Most devices are constructed to allow bypass of flood waters. They can feasibly be located within the existing catch basins. Similar to small filtration systems, construction costs and the maintenance requirements to install catch basin separation inserts in all catch basins within the

City of Gretna is not feasible. Catch basin separation inserts are feasible for retrofit installation in selected areas.

Filtration systems, both membrane and media filters, effectively remove suspended solids, oil and grease, organic matter, and, to some extent, bacteria. Most filtration devices are capable of bypassing flood water and can feasibly be located within the existing catch basins. Construction costs and the maintenance requirements to install filters in all catch basins within the City of Gretna is not feasible. Filtration devices are feasible for retrofit installation in selected areas.

Infiltration basins are not considered feasible in the City of Gretna due to natural geologic restraints of high water table and nonporous soil conditions.

Chemical systems, both disinfection and solids removal, cannot feasibly be located within the existing flood control system since the City does not own or maintain any existing storm water treatment facilities.

Constructed wetlands carry a high construction cost yet have very low maintenance requirements; but they cannot feasibly be located within the City of Gretna.

APPENDIX F

PESTICIDE, HERBICIDE, AND FERTILIZER

PROGRAM

FOR

THE CITY OF GRETNA

NPDES MS4 PERMIT

May 2022

Prepared For:

The City of Gretna, Louisiana

Prepared By:

BURK-KLEINPETER, INC.
4176 Canal St.
New Orleans, Louisiana 70119
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SECTION 1

INTRODUCTION

This Pesticide, Herbicide, and Fertilizer (PH&F) Program has been prepared in accordance with the National Pollutant Discharge Elimination System (NPDES) Permit requirements. This PH&F Program summarizes the City of Gretna's employee training and certification, chemical storage and labeling, application, and disposal practices and procedures to reduce the discharge of pollutants to waters of the United States. This section provides background information on the regulatory aspects of controlling storm water pollution as well as general requirements on the PH&F Program as determined by the final NPDES Permit issued to the Jefferson Parish Municipal Separate Storm Sewer System (MS4).

1.1 BACKGROUND

A final NPDES Permit, No. LAS000201, was issued to the Parish of Jefferson, Louisiana Department of Transportation and Development—District 02, City of Gretna, City of Harahan, City of Kenner, and City of Westwego to discharge from all portions of the Jefferson Parish MS4 to waters of the United States in accordance with the Storm Water Management Program (SWMP). The final NPDES Permit was issued by the United States Environmental Protection Agency (USEPA) on January 17, 1997, and became effective on March 1, 1997.

The NPDES MS4 Permit requires Jefferson Parish and the incorporated Cities of Gretna, Harahan, Kenner, and Westwego to develop, revise, and implement a comprehensive SWMP. The SWMP shall include administrative, non-structural, and structural practices to reduce the discharge of pollutants form the Municipal Separate Storm Sewer System to the Maximum Extent Practicable (MEP).

One of the requirements of the SWMP is the development and implementation of a PH&F Program by each permittee. This document outlines the City of Gretna's policies and procedures to comply with the PH&F Program portion of the NPDES Permit.

Furthermore, Part II—Section A.5 "Pesticide, Herbicide, and Fertilizer Application" of the permit identifies the criteria for the development of the PH&F Program as follows:

"5. Pesticide, Herbicide, and Fertilizer Application: Each permittee shall implement controls to reduce the discharge of pollutants related to the storage and application of pesticides, herbicides, and fertilizers applied by the permittee's employees or contractors, to public right of ways, parks, and other municipal property. Permittees with jurisdiction over lands not directly owned by that entity (e.g. incorporated city) shall implement programs to reduce the discharge of pollutants related to commercial application and distribution of pesticides, herbicides, and fertilizers."

1.2 PURPOSE

This PH&F Program was prepared to identify and describe practices and operating procedures employed by the City of Gretna to reduce the discharge of pollutants to the storm water drainage system from the storage and application of pesticides, herbicides, and fertilizers.

1.3 CITY OF GRETNA'S JURISDICTION

The City of Gretna is responsible for vegetation control within the City-owned areas of the incorporated City limits. The Louisiana Department of Transportation and Development is responsible for vegetation control within State and Federal Highways.

SECTION 2

THE CITY OF GRETNA DEPARTMENTS' RESPONSIBILITY

The City of Gretna uses many programs to control discharge into and from the storm water drainage system. These programs include structural controls, source controls, and controls through ordinances. The Department of Public Works (DPW) is responsible for the maintenance of parks, recreational areas, and green areas in streets, medians, and drainage canals:

2.1 DEPARTMENT OF PUBLIC WORKS

The Gretna DPW is responsible for the operation and maintenance of recreational parks and playgrounds within the Gretna City limits. The DPW practices include litter control, vegetation control, and general maintenance at each park and playground.

The DPW is also responsible for the maintenance of green areas located on medians and along roadsides. Vegetative cover slows down the velocity of storm water runoff to minimize erosion and serves as filtration for pollutants that would otherwise enter the storm drainage system.

Finally, the DPW is responsible for operation and maintenance of the storm water collection system, including maintenance mowing for vegetation control within open drainage canal slopes, rights-of-way, and bottoms. No herbicides are used within the Gretna canal and right-of-way system.

SECTION 3

CHEMICALS STORAGE AND APPLICATION

This section addresses the City of Gretna's practices and procedures to reduce the discharge of pollutants into the storm water collection system and receiving water bodies related to the storage and application of fertilizers. The City of Gretna does not use herbicides for control of vegetation within the City limits.

3.1 CHEMICAL STORAGE

All chemicals are stored indoors and under lock and key. Storage facilities are ventilated and provided with enough lighting for proper personnel movement. Gretna does not store chemicals in bulk containers.

3.1.1 Containers

All fertilizer products are stored in their original containers, sealed tightly.

3.1.2 Labels

The label is a legal agreement between the product manufacturer and the user. Product labels provide instructions for all phases of use. Personnel applying the material must read and understand label directions carefully, particularly the directions for use (such as application rates and methods) and cleanup, storage, and disposal instructions. Chemicals are not applied at higher rates than recommended by the manufacturer.

3.2 CHEMICAL APPLICATION

Fertilizers are only used on public right-of-ways, parks, and other municipal property where a Public Works or other project has created an excavation or other disturbance of the ground cover, and it is desired for ground cover to grow back quickly for aesthetic or erosion control purposes. Where applicable, the specifications for these projects will typically designate the type and amount of fertilizer to be used, along with seeding and mulching. These plans and specifications are reviewed and approved by the Gretna DPW. Typically, the local climate and soil conditions are such that desirable vegetation grows quite easily without artificial nutrition.

3.3 DISPOSAL PRACTICES

Any individual, whether City of Gretna DPW personnel or private contractors performing work within the City limits, that use fertilizers are required to adhere to the manufacturer's instructions for cleanup and disposal.

APPENDIX G

ILLICITS DISCHARGE PROGRAM

PROGRAM

FOR

THE CITY OF GRETNA

NPDES MS4 PERMIT

May 2022

Prepared For:

The City of Gretna, Louisiana

Prepared By:

BURK-KLEINPETER, INC.
4176 Canal St.
New Orleans, Louisiana 70119
(504) 486-5901

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SECTION 1

ILLICITS DISCHARGE PROGRAM

ILLICITS DISCHARGE PROGRAM

The City of Gretna has a unique storm sewer system consisting of miles of open canals in which most problems are easily seen. The City of Gretna maintains a manned telephone line to handle citizen's complaints or reports of problems with the Municipal Separate Storm Sewer System (MS4). In addition to responding to particular complaints, the City Department of Public Works performs system maintenance activities on a regular three-week cycle, visually screening the entire system.

If something unusual (i.e. foam, color, or dry weather flow) is seen in the system, it is reported to the City Department of Public Works (DPW) by the public or City personnel, and it is investigated immediately in an attempt to locate the source and correct the problem. This system of responding to citizen and City employee notification of potential problems in the storm drainage system is very effective dry weather screening.

Further, the City will initiate a dry-weather screening program to randomly check for illicit discharges into the MS4. Drainage sub-basins and outfalls into the MS4 have been identified in the Wet Weather Screening Program. These sub-basins include residential, commercial, and industrial areas of sufficient size to be a substantial contributor of urban runoff. An initial windshield screening shall be conducted during dry weather to look for evidence of potential pollution such as foam, turbidity, floatables, deposits or stains, sediment accumulation, unusual color, or dry weather flow at drainage outfalls and/or in drainage canals and ditches in the selected sub-basin. A sample sub-basin survey is attached. In addition to Citywide Dry-Weather Screening, the City will inspect 2 significant locations twice per year. One location is at Governor Hall St./11th St. and Gretna Blvd/Pike St. Samples will be tested by Pace 3600 Jefferson Highway Building E, Jefferson, La. 70121 504-736-6000

Upon receipt of a complaint or observation of a potential pollution or discharge problem, City DPW personnel will visit the outfall and attempt to locate the source of pollution or discharge by routing from the outfall through the open or enclosed drainage system. If the discharge is determined to be originating from an industrial or commercial source, the owner shall be given notice to either eliminate the illicit discharge or apply to the Louisiana Department of Environmental Quality (LDEQ) for a permit authorizing the discharge. In the interim, the owner shall be required to take all reasonable and prudent measures to minimize the discharge of pollutants to the MS4. If the illicit discharge is determined to be from a residential source, appropriate corrective or enforcement action shall be taken as per City ordinances.

If the dry weather survey uncovers what appears to be significant pollutant problems, but the source cannot be identified, then screening samples may be collected to further attempt to identify the source.

Assessment of the dry weather screening program will be a process in which screening and survey methods will be elevated periodically to determine the benefits of the screening process.

Other existing City of Gretna building codes, ordinances, permit requirements, and practices which pertain to illicit discharges from sanitary sewers are listed as follows:

Ordinance	Description
Section 94-121	Requires new and replacement sanitary sewer designs to minimize or eliminate discharge from the system into flood waters. On-site waste disposal shall be located to avoid contamination from them during flooding. Subdivision proposals shall have public utilities located to minimize or eliminate flood damage.
Section 102-262	Mobile home parks must provide connection to the water and sewer systems of the City.
Section 102-308	Subdivision developers shall extend water and sewer lines as necessary and insure that all sanitary requirements are met.
Section 94-21	Unlawful connections to any utility system are prohibited.
Section 94-70	Unsanitary discharges upon public or private property or to any natural outlet are prohibited. Where available, connection with the public sewer is required.
Section 94-101	Private sewage disposal is a viable option only when authorized and proper permits are obtained. Sanitary operation is required.
Section 94-93	Building sewers must be connected to the public sewer in accordance with all rules and regulations. Joints and connections must be gas and water-tight.
Section 94-102	The City Plumbing Inspector must approve all connections and discharges into the public sewer. Also provides a list of discharges prohibited to the public sewers.

In addition to the requirements set forth here, The City of Gretna adopted a new Unified Development Code (UDC) on June 22, 2019. ARTICLE IV SITE DEVELOPMENT AND DESIGN STANDARDS details the permit requirements, runoff standards, planting and stormwater management and flood damage protection requirements for new or retrofitting projects within city limits.

In addition to the requirements set forth here, The City of Gretna adopted a new Unified Development Code (UDC) on June 22, 2019. ARTICLE IV SITE DEVELOPMENT AND DESIGN STANDARDS details the permit requirements, runoff standards, planting and stormwater management and flood damage protection requirements for new or retrofitting projects within city limits. For the pertinent UDC sections, please see:

Planning and City Development - City Of Gretna (gretnala.com)

The City of Gretna's Municode with updates can be found here:

https://library.municode.com/la/gretna/codes/code_of_ordinances

The Department of Public Works of the City of Gretna maintains a manned telephone line for reporting of sewage leaks or stoppages, and sends out crews to investigate complaints. The primary benefit of this existing practice is to identify and remove illicit connections, thereby protecting human health and the environment.

SECTION 2

WET WEATHER SCREENING PROGRAM

WET WEATHER SCREENING PROGRAM

The City of Gretna has a unique storm sewer system consisting of miles of open canals in which most problems are easily seen. If something unusual (i.e. foam, color) is seen in a canal, it is usually reported to the Environmental and Development Control Department by the public or City personnel, and it is investigated immediately in an attempt to locate the source and correct the problem. This system of responding to citizen and City employee notification of potential problems in the storm drainage system is very effective wet weather screening.

In addition to this program, Environmental & Development Control Department (EDCD) personnel will identify appropriate drainage sub-basins. The sub-basins selected shall be in areas not addressed in other parts of the Municipal Separate Storm Sewer System Permit and shall include residential, commercial, and industrial areas of sufficient size to be a substantial contributor of urban runoff. An initial windshield screening shall be conducted during wet weather to look for evidence of potential wet weather pollution such as foam, turbidity, floatables, deposits or stains, sediment accumulation, unusual color, or the absence or abundance of vegetation at drainage outfalls and/or drainage canals and ditches in the selected sub-basin.

If no significant visual evidence of potential wet weather pollution is discovered during the windshield screening, then the next sub-basin will be screened. If significant visual evidence of potential wet weather pollution is discovered during the windshield screening, then a wet weather survey of the sub-basin will be conducted, using the wet weather survey checklist.

The wet weather survey will be used to identify potential sources of pollution. Wet weather visual observations of pollution sources such as erosion, wash-off from chemical storage areas, poor housekeeping in waste storage areas, etc. will be documented on the wet weather survey checklist. If pollutant sources are readily apparent, recommended actions would also be noted on the field survey form and pictures taken to document the source. Recommendations and documentation would then be routed to the appropriate entity for action.

If the wet weather survey uncovers what appears to be significant pollutant problems, but the source cannot be identified from the wet weather survey data, then screening samples may be collected to further attempt to identify the source. Samples will be tested by Pace 3600 Jefferson Highway Building E, Jefferson, La. 70121 504-736-6000

Assessment of the wet weather screening program will be a process in which screening and survey methods will be elevated periodically to determine the benefits of the screening process.

APPENDIX H

HOUSEHOLD HAZARDOUS WASTES PROGRAM

FOR

THE CITY OF GRETNA, LOUISIANA

NPDES MS4 PERMIT

May 2022

Submitted by:

The City of Gretna, Louisiana

Report Prepared By:

BURK-KLEINPETER, INC.
4176 Canal St.
New Orleans, Louisiana 70119
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SECTION 1

INTRODUCTION

1.1 Background

A final National Pollutant Discharge Elimination System (NPDES) Permit No. LAS000201 was issued to the Parish of Jefferson, Louisiana Department of Transportation and Development—District 02, City of Gretna, City of Harahan, City of Kenner, and City of Westwego to discharge from all portions of the Jefferson Parish MS4 to waters of the United States in accordance with the Storm Water Management Program (SWMP). The final NPDES Permit was issued by the United States Environmental Protection Agency (USEPA) Region VI on January 17, 1997, and became effective on March 1, 1997.

The NPDES MS4 Permit requires Jefferson Parish and the incorporated Cities of Gretna, Harahan, Kenner, and Westwego to develop, revise, and implement a comprehensive SWMP. The SWMP shall include administrative, non-structural, and structural practices to reduce the discharge of pollutants from the Municipal Separate Storm Sewer System to the Maximum Extent Practicable (MEP).

One of the requirements of the MS4 Permit is the development and implementation of a Household Hazardous Waste Program (HHWP) by each permittee. This Report outlines the City of Gretna's operations, maintenance, regulatory, and public education policies and procedures to comply with the HHWP portion of the NDPES permit, and provides the general requirements of the HHWP as determined by the final NPDES Permit issued to the Jefferson Parish Municipal Separate Storm Sewer System (MS4).

1.2 Purpose

In Part II.A.6.d of Jefferson Parish's MS4 permit, the City of Gretna, as a copermittee with Jefferson Parish, is charged with the development of a program to meet the following goals:

1. Prohibit the discharge or disposal of used motor vehicle fluids and household hazardous wastes; and the intentional disposal of collected quantities of grass clippings, leaf litter, and animal wastes into separate storm sewers.
2. Facilitate the proper recycle, reuse, or proper disposal of used motor vehicle fluids (at a minimum, oil and antifreeze) and toxics from households (including paint, solvents, pesticides, herbicides, and other hazardous materials).

Further, the Permit states that such programs shall be readily available to all private residents and shall be publicized and promoted on a regular basis.

SECTION 2

CITY OF GRETNA PRACTICES AND PROCEDURES

2.1 Existing Regulations

The City of Gretna has in place several laws regulating the storage, handling, and disposal of solid waste, and prohibiting the discharge into the storm drainage system of many of the household hazardous waste (HHW) items cited in Section 1.2 above. Existing City of Gretna Ordinances relating to this section are provided in the following table:

Ordinance	Description
Section 14-37	Requires pet or animal owners to remove waste immediately from public or private property.
Section 22-138	Regulates storage of parts or waste materials at Automobile Repair and Body Shops.
Section 82-3	Prevents objectionable waste on public or private property.
Section 82-4	Prevents burning of solid waste.
Section 82-7	Sets guidelines for storage of solid waste, and stipulates that hazardous waste must be handled in a manner approved by the Department of Public Works.
Section 82-8	Sets criteria for City waste collection.
Section 82-11	Requires vehicles transporting wastes to be watertight and leak-proof.
Section 82-12	Regulates waste disposal sites and prevents open dumping and burning.
Section 82-15	Mandates and regulates fences enclosing dumpsters.
Section 82-16	Mandates Convenience Stores to have waste receptacles on their property.

Sections 82-41 through 82-47 of the City of Gretna Code of Ordinances also regulate Household Recycling, although that Program has been disbanded in the City of Gretna.

In addition to the requirements set forth here, The City of Gretna adopted a new Unified Development Code (UDC) on June 22, 2019. ARTICLE IV SITE DEVELOPMENT AND DESIGN STANDARDS details the permit requirements, runoff standards, planting and stormwater management and flood damage protection requirements for new or retrofitting projects within city limits.

In addition to the requirements set forth here, The City of Gretna adopted a new Unified Development Code (UDC) on June 22, 2019. ARTICLE IV SITE DEVELOPMENT AND DESIGN STANDARDS details the permit requirements, runoff standards,

planting and stormwater management and flood damage protection requirements for new or retrofitting projects within city limits. For the pertinent UDC sections, please see:
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The City of Gretna's Municode with updates can be found here:
https://library.municode.com/la/gretna/codes/code_of_ordinances

2.2 Existing Practices

2.2.1 Solid Waste Collection

To facilitate the proper disposal of the aforementioned solid wastes, the City of Gretna collects grass and shrub clippings, leaf litter and animal wastes curbside as part of their bi-weekly garbage collection.

2.2.2 Curbside Recycling Program

At this time, the City of Gretna does not have a curbside recycling program.

2.2.3 Drop-off Recycle Sites for Waste Automotive Fluids, Tires, Batteries and Yard Waste

The City of Gretna does not have within its City Limits a Drop-off Recycle Site, but citizens are encouraged to utilize the Jefferson Parish drop-off recycling site located nearby on the West Bank of Jefferson Parish for the proper disposal and recycling of used motor vehicle fluids. Availability of the site is promoted regularly in newspaper ads, mail-outs, and presentations to civic and business associations, schools, scout groups, etc.

This recycling site allows residents to drop off used motor oil, antifreeze, gasoline, waste tires and automotive batteries for recycling. The site operates during daylight hours, eight and one-half hours per day, six (6) days per week, Tuesday through Sunday. Residents of the Parish are allowed to dispose of up to five (5) gallons per day of used oil and antifreeze and two (2) gallons per day of gasoline. Residents may also currently drop-off non-hazardous solid waste, such as cut grass, tree limbs, white goods, etc. at this site.

The City of Gretna publicizes information regarding disposal of household hazardous wastes via brochures developed by the City that are distributed to all residents once a year via utility bill mailings. Contained in this annual mail out is information such as the following excerpt:

"The City of Gretna Department of Public Works has a regular program of drainage system maintenance, whereby open canals and ditches and surface detention basins are mowed and inspected for blockages. You can help by cleaning catch basins in front of your property. Also avoid dumping debris in catch basins, drainage ditches, and canals. Debris can cause the drainage system to function improperly and cause flooding. Call the Gretna Department of Public works (Streets and Drainage) at 363-1579 if you have questions, specific drainage problems, or to report illegal dumping. The City of Gretna has an ordinance that prohibits dumping of any material in the drainage system."

2.3 Public Education Programs

2.3.1 Educational Storm Drain Markers and Doorhangers

The City of Gretna participates in the Jefferson Parish Department of Environmental Affairs program wherein volunteers (scouts, civic organizations, schools, etc.) apply polyurethane markers to storm drain inlets and catch basins that warn citizens "No Dumping - Flows to Coastal Wetlands." The markers warn of a potential fine of up to $5,000 and include the telephone number of the Jefferson Parish Department of Environmental Affairs to report any suspicious dumping activities. This program reminds citizens that it is illegal to dispose of any materials in the storm sewer system, including HHW, grass clippings, leaves, pet wastes, etc.

In concert with the storm drain markers is a public awareness campaign consisting of educational doorhangers distributed in the same neighborhoods where markers are being applied. The doorhangers instruct citizens on the proper disposal of wastes, provide alternatives to waste disposal and educate them on the consequences of improper disposal.

2.3.2 Residential Reuse, Recycle and Disposal Guide

To facilitate the disposal and/or recycling of household hazardous wastes, the Jefferson Parish Department of Environmental Affairs periodically publishes and distributes a *Residential Reuse, Recycle and Disposal Guide*. This guide advises residents on the proper use and disposal of HHW and provides a listing of outlets for the proper disposal, reuse and recycling of HHW and other household recyclables. The HHW that the guide addresses include expired medications, nickel-cadmium batteries, used syringes, air conditioners and refrigerators, latex paint, oil-based paints and solvents, gasoline and diesel fuel, used motor oil and antifreeze, car and truck batteries,

computer components and monitors, fluorescent lamps, mercury, and pesticides. This guide is posted at the Jefferson Parish Office Building, and is distributed via mail-out in response to telephone requests for the guide. Jefferson Parish has the *Residential Reuse, Recycle and Disposal Guide* available on its website, which is linked to the City of Gretna's website.

Disposal outlets included in the guide are the Parish's two (2) Drop-off Recycling Sites (East Bank and West Bank) and local recyclers such as the Green Project, a local organization that accepts latex paint, unopened oil paint, stains, paint thinner, unopened caulk and paint stripper.

2.3.3 Conferences

The City of Gretna will participate in any Conferences Jefferson Parish requests.

2.3.4 Classroom Presentations

City of Gretna personnel have assisted the Jefferson Parish Department of Environmental Affairs in classroom presentations with Jefferson Parish's "Enviroscape" model. Jefferson Parish owns this educational water system model, whose purpose is to educate the public on the cause and effects of storm water system pollution and demonstrate the consequences of neighborhood and household pollution through improper waste handling.

In conjunction with the Enviroscape presentations, the City and Parish personnel operate the EPA's "Desdemona" computer program, which encourages interaction and discussion regarding proper and improper disposal of household wastes. The program also demonstrates the effect of improper disposal. Gretna will hold 2 classroom events each year.

APPENDIX I

SPILL PREVENTION AND RESPONSE PROGRAM

FOR

THE CITY OF GRETNA, LOUISIANA

NPDES MS4 PERMIT

May 2022

Submitted by:

The City of Gretna, Louisiana

Report Prepared By:

BURK-KLEINPETER, INC.
4176 Canal St.
New Orleans, Louisiana 70119
(504) 486-5901

JEFFERSON PARISH NPDES MS4 PERMIT
SPILL PREVENTION AND RESPONSE DOCUMENT

THE CITY OF GRETNA
JEFFERSON PARISH, LOUISIANA

This document will provide a summary report of the Spill Prevention and Response procedures undertaken by the City of Gretna in accordance with the requirements of the referenced Permit. Spill Prevention and Response Programs are those which prevent, contain, and respond to spills that may discharge into the MS4.

The Spill Prevention and Response program is included as part of the "Roadway Maintenance Program," which summarizes the City of Gretna's operations and maintenance policies and procedures to reduce the discharge of pollutants to the waters of the United States from its roadway system to the Maximum Extent Practicable.

Chemical spills into the MS4 or incidents involving hazardous materials that pose an exposure risk to the storm drainage system are reported to the City of Gretna Department of Public Works (DPW). DPW personnel respond to incidents involving hazardous materials that pose an exposure risk to the storm drainage system. The DPW will provide spill containment in the drainage system and contact an environmental services contractor immediately. The Department will also work with the Jefferson Parish Department of Emergency Management, the 911 response unit, and the City of Gretna and/or Jefferson Parish Fire Department to control or contain fuel or flammable material spills and protect the environment.

APPENDIX J

INDUSTRIAL & HIGH RISK

INSPECTION PROGRAM

FOR

THE CITY OF GRETNA

NPDES MS4 PERMIT

May 2022

Prepared For:

The City of Gretna, Louisiana

Prepared By:

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SECTION 1

INTRODUCTION

A final National Pollutant Discharge Elimination System (NPDES) Permit was issued to Jefferson Parish, Louisiana; the Louisiana Department of Transportation and Development – District 02; the City of Gretna; the City of Harahan; the City of Kenner; and the City of Westwego to discharge from all portions of the Jefferson parish Municipal Separate Storm Sewer System (MS4) to waters of the United States in accordance with the Storm Water Management Program. The final NPDES Permit was issued by the U. S. Environmental Protection Agency (USEPA) on January 17, 1997, and became effective March 1, 1997.

The MS4 permit requires Jefferson parish and the Cities of Gretna, Harahan, Kenner, and Westwego to identify Industrial and High Risk (I&HR) facilities that discharge their stormwater into the Jefferson Parish Storm Sewer System. Furthermore, these facilities may be subject to inspection and/or monitoring requirements.

Part II, Section A.8, "Industrial & High Risk Runoff", of the permit identifies the criteria for the development of an Industrial and High Risk Inspection Program and the facilities subject to this program as follows:

"8. Industrial & High Risk Runoff: A program to identify and control pollutants in stormwater discharges to the Municipal Separate Storm Sewer System from municipal landfills; other treatment, storage, or disposal facilities for municipal waste (e.g., transfer stations, incinerators, etc.); hazardous waste treatment, disposal, and recovery facilities; industrial facilities that are subject to EPCRA Title III, Section 313; and any other industrial or commercial discharge the permittee determines are contributing a substantial pollutant loading to the Municipal Separate Storm Sewer System shall be implemented. The program shall include:

a) priorities and procedures for inspections, monitoring (see Part II.A.11.c), and establishing and implementing control measures for such discharges; and

b) a list of industrial storm water sources discharging to the Municipal Separate Storm Sewer System shall be maintained and updated as necessary."

SECTION 2

IDENTIFICATION OF FACILITIES SUBJECT TO PROGRAM

2.1 PROCESS USED TO DEVELOP CURRENT LIST

In order to properly identify potential I&HR facilities discharging to Jefferson Parish's MS4, several databases were searched and used. Only the facilities located within Jefferson Parish's MS4 permit drainage area (inside the levee system) are included in the I&HR Inspection List. The following data bases were used to develop the list of I&HR facilities subject to inspection:

- List of EPCRA Title III, Section 313 facilities. The list of facilities was provided by the Louisiana Department of Environmental Quality – Office of the Secretary, for the reporting year 1996.

- VISTA, a regulatory data retrieval firm, provided the following databases:

    1. NPDES Individual Permit Holders;
    2. Treatment, Storage, and Disposal Facilities;
    3. Solid Waste Facility Information; and
    4. Open Dumps.

- The *1998 Directory of Louisiana Manufacturers*, which is published in cooperation with the Louisiana Department of Economic Development.

- Database of Storm Water General Permit Holders maintained by the USEPA.

The USEPA published Phase I stormwater regulations on November 16, 1990. These regulations require certain categories of dischargers of storm water to apply for NPDES permits. In addition, these regulations require facilities with storm water discharges associated with industrial activity to apply for storm water permits even if discharging through the MS4.

Storm water discharges associated with industrial activity addresses point source discharges of storm water from eleven major categories of industrial activities. The USEPA grouped industrial discharges of storm water into twenty-nine sectors, based on the nature of the industrial activity, type of material handled (i.e., raw products), and material management practices. Additionally, Standard Industrial Classification (SIC) Codes were used to develop sub-sectors within the 29 industrial sectors, each of which has specific monitoring requirements, as promulgated by the USEPA on September 29, 1995 in the Multi-Sector General Storm Water Permit (MSGP).

The methodology used to develop the I&HR Inspection List was to collect all the databases mentioned above and enter them into a common database and sort by SIC codes. Facilities with

SIC codes falling into any of the sub-sectors developed by the USEPA for the MSGP were subsequently entered into the I&HR Inspection List.

In addition to facilities with SIC codes covered by the MSGP, municipal landfills; municipal waste, treatment, storage, and disposal facilities, such as POTWs; and facilities subject to EPCRA Title III, Section 313, were also included in the list.

Following submittal of this list to the co-permittees and questionnaires mailed to the facilities themselves by the Parish, some facilities were removed from the list, and some were added. Those facilities which were deemed to be strictly office space with no manufacturing processes were removed from the list. The finalized list was compiled based on these omissions or additions.

2.2 PROCEDURE FOR IDENTIFICATION OF ADDITIONAL FACILITIES

The City of Gretna conducted an audit of the licenses of its industrial facilities within the city limits by using the computer database. The search excluded some of the facilities on the original list supplied by Jefferson Parish due to inaccurate municipality listing (i.e., not in Gretna City Limits), nature of activity within the City (i.e., office space only, no substantial pollutant loading in discharge), closure of the facility, or relocation of the facility outside of the City Limits.

Further, the search revealed no additional landfills, municipal waste facilities, hazardous waste facilities, or other such industrial or commercial pollutant-discharging facilities within the City of Gretna that were not on the list submitted by Jefferson Parish. Thus, there were no facilities added to the original list.

2.3 INDUSTRIAL SURVEYS OF FACILITIES ON CURRENT LIST

The City Engineer for the City of Gretna conducted an initial site inspection of the facilities on the revised I&HR Inspection list during the month of August, 1998. This site inspection, combined with a review of the City of Gretna's internal records and licenses for industrial facilities, yielded the finalized List of Facilities Subject to I&HR Inspection as submitted to EPA on September 1, 1998. The City of Gretna will perform 1 inspection per year of their I&HR facilities.

2.4 DETERMINE UNPERMITTED FACILITIES

The City of Gretna is a relatively small, primarily residential community. There are very few areas zoned for Industrial uses. Further, many City employees have been with the City for a long period of time, and their knowledge of the City is thorough. Through site inspection of the small industrial areas and discussions with City employees, all of the industrial facilities within the City

are known. A search of these facilities on the City's computerized database shows that there are no industrial facilities within the City of Gretna which are unpermitted according to City records.

SECTION 3

INSPECTION PROCEDURES

3.1 NUMBER OF FACILITIES TO BE INSPECTED PER YEAR

The original "List of Facilities Subject to I&HR Inspection" provided by Jefferson Parish to the City of Gretna contained a total of twenty (20) facilities. The finalized I&HR Inspection List submitted to EPA, following revisions and deletions, contained a total of TEN (10) facilities within the Gretna City Limits to be inspected under this program. As of 2022 there is only 4 I&HR Facility. Gretna will inspect this facility 1 time per year.

According to the terms of the MS4 Permit, these industries must be inspected at least once during the MS4 NPDES permit term (i.e., at least once every five years). This minimum requirement should be exceeded when circumstances dictate due to complaints or visual observation of pollution.

The City of Gretna's Wet Weather Screening Program (WWSP), developed as a part of this MS4 Permit and already active, was devised in part to screen outfalls from chiefly commercial and industrial areas of sufficient size to be a substantial contributor of urban runoff. Thus, runoff from many of the facilities on the I&HR Inspection List is already being inspected as part of the WWSP. In this case, the facilities will be inspected quarterly (i.e., four times per year).

3.2 PRIORITIES FOR DETERMINING WHEN TO INSPECT

The City of Gretna has a unique storm sewer system consisting of miles of open canals in which most problems are easily seen. If something unusual (i.e. foam, color) is seen in a canal, it is usually reported to the City of Gretna Department of Public Works by the public or City personnel, and it is investigated immediately in an attempt to locate the source and correct the problem. To this end, the Department maintains a manned telephone line for responding to this type of complaint. Investigations and remedies are handled on a work-order basis.

In addition, the Department performs quarterly Wet Weather Screening on selected outfalls into major open drainage canals. These are done once each season during a substantial rainfall occurring after a minimum of three (3) dry days.

Those facilities which are not located in areas covered by the Wet Weather Screening Program will be added to the program once this I&HR Inspection Program is approved.

3.3 INSPECTION CHECKLIST

Inspections of the listed facilities will consist of initially identifying whether pollutants are being discharged into the MS4 from the facilities by visual observation of the discharge from the facility into the MS4. An initial windshield screening shall be conducted during a rain event to look for evidence of potential wet weather pollution such as foam, turbidity, floatables, deposits or stains, sediment accumulation, unusual color, or the absence or abundance of vegetation at the drainage outfall of the facility in question.

If significant visual evidence of potential pollution is discovered during the windshield screening, then the I&HR Inspection checklist will be used to attempt to identify the pollutants and determine the source. The I&HR Inspection checklist is identical to the Wet Weather Screening Program checklist, previously submitted and currently in use by City personnel. The loading, type, and frequency of pollutants will be recorded. Recommended actions would also be noted on the checklist and pictures taken to document the source. Recommendations and documentation would then be routed to the City of Gretna's Engineering consultant for development of a program to control such pollutant loadings into the MS4 from the facilities' stormwater discharges. Procedures for establishing and implementing control measures will be prioritized.

3.4 INSPECTION REPORT

The City of Gretna Department of Public Works will maintain records and completed checklists for the I&HR Inspection Program. Each Inspection must be documented by using the I&HR checklists - *regardless of whether any visual evidence of pollution was found* - and the checklist must be filled out for each visit at each site. These records will be kept at the Department Office. Copies will also be submitted to the City Engineer for review, comment, and analysis. The City Engineer may make additional recommendations or modifications to the Inspection program as necessary.

3.5 INSPECTOR TRAINING

City of Gretna Department of Public Works personnel have substantial experience in identifying pollutants in storm water conveyance systems. The Department currently performs very similar duties as part of the Wet Weather Screening Program. In addition, Department personnel are frequently called to investigate citizen complaints of pollutants in storm water discharges and develop remedies for these situations.

Further, the City's Engineering consulting firm of Burk-Kleinpeter, Inc. has substantial experience in Civil and Environmental Engineering, and provides continuous consulting services to the City wherever or whenever necessary.

SECTION 4

MAINTENANCE AND UPDATING OF LIST OF FACILITIES SUBJECT TO PROGRAM REQUIREMENTS

The original List of Facilities Subject to I&HR Inspection was developed as described previously in Section 2 for existing facilities within the City of Gretna. The City maintains a computerized database of business licenses within the City and can track their existing facilities using this database.

As per Part II, Section A.8.b of the Permit, the I&HR Inspection List will be maintained and updated as necessary. Any new facilities which apply to the City of Gretna for a new or updated license will be checked according to the criteria mentioned in Section 2. If they meet the criteria, they will be notified that their facility is subject to I&HR Inspection, and they will be added to the list and the Inspection Program. Likewise, facilities will be removed from the list and the Inspection Program if applicable due to relocation or change of activity. The list and Program will be updated at this time and submitted to Jefferson Parish and the EPA.

LIST OF FACILITIES SUBJECT TO THE INDUSTRUAL AND HIGH RISH INSPECTION PROGRAM

The City of Gretna, Louisiana

Recommendation for year 1 - complete the following inspecti9ons, likely ruling out Zatarains and Dales from the IHR list.

Recommendation for year 2 - complete the municipal facility inspections

Recommendations for year 3-5 - 2 per year where issues were found in years 1 and 2

Outreach recommendation - factsheet for car washes and auto repair shops

Business	*Operations*	*Address*	*Stormwater Permit*	*AI#*	*Contact for Site Visit*
John W. Stone Oil Distributor	Oil tank storage (AST) and barge transfers	87 First Street	Yes - MSGP, LAR050000 effective Dec 2021	4005	Tony Odak - COO
Zatarains	SIC 2099, 11 acre site. Former UST site.	82 First Street	2022 No Exposure exlcusion filed	69802	Chantell Jennings, HSE Manager
Dales Towing & Storage	Large	76 1st Street			
Event Restrooms	Portable toilets - storage and transport and waste disposal	331 Richard	NO - sewage sludge transporter certification for 1.3M annual gallons	167925	Edgar Lazaro - owner
Add City water plant, wastewater plant and DPW yard for Year 2					

APPENDIX K

CONSTRUCTION SITE INSPECTION PROGRAM

FOR

CITY OF GRETNA

NPDES MS4 PERMIT

May 2022

Prepared For:

The City of Gretna, Louisiana

Prepared By:

BURK-KLEINPETER, INC.
4176 Canal St.
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SECTION 1

INTRODUCTION

This Construction Site Inspection (CSI) Program has been prepared in accordance with the National Pollutant Discharge Elimination System (NPDES) Permit requirements. This CSI Program has been prepared to assist in the notification procedures and training of the City of Gretna staff in the inspection of construction sites within City limits. This section provides background information on the regulatory aspects of controlling storm water pollution from construction sites as well as general requirements of the CSI Program as determined by the final NPDES Permit issued to the Jefferson Parish Municipal Separate Storm Sewer System (MS4).

1.1 BACKGROUND

A final NPDES Permit, No. LAS000201, was issued to the Parish of Jefferson, Louisiana Department of Transportation and Development-District 02, City of Gretna, City of Harahan, City of Kenner, and City of Westwego to discharge from all portions of the Jefferson Parish MS4 to waters of the United States in accordance with the Storm Water Management Program (SWMP). The final NPDES permit was issued by the United States Environmental Protection Agency (USEPA) on January 17, 1997, and became effective on March 1, 1997.

The NPDES MS4 Permit requires Jefferson Parish and the incorporated Cities of Gretna, Harahan, Kenner, and Westwego to develop, revise, and implement a comprehensive SWMP. The SWMP shall include administrative, non-structural, and structural practices to reduce the discharge of pollutants from the Municipal Separate Storm Sewer System to the Maximum Extent Practicable (MEP).

One of the requirements of the SWMP is the development and implementation of a Construction Site Inspection Program by each permittee. The purpose of this CSI Program is to identify procedures and practices by the City of Gretna to address potential pollutants generated by construction sites.

Furthermore, Part II-Section A.9 "Construction Site Runoff" of the permit identifies the criteria for the development of the Construction Site Inspection Program as follows:

"9. Construction Site Runoff: A program to reduce the discharge of pollutants from construction sites shall be implemented. This program shall include:

a. requirements for the use and maintenance of appropriate structural and nonstructural best management practices to reduce pollutants discharged to the Municipal Separate Storm Sewer System during the time construction is underway;

b. inspection of construction sites and enforcement of control measures (in accordance with priorities and procedures established in the Storm Water Management Program);

c. appropriate education and training measures for construction site operators; and

d. notification of appropriate building permit applicants of their potential responsibilities under the NPDES permitting program for construction site runoff."

1.2 PURPOSE

One of the most important factors to reduce the amount of pollutants entering the storm water drainage system from construction projects is the development of a good pollution prevention plan. During the development of this plan, the different alternatives available to control erosion and sediments from entering the storm water drainage system are evaluated. The City of Gretna has developed this Construction Site Inspection Program to address all construction projects within the City limits.

1.3 THE CITY OF GRETNA JURISDICTION

The City of Gretna is responsible for the inspection of all construction sites within the City limits.

SECTION 2

NOTIFICATION PROCEDURES

This section addresses the notification procedure for developers with construction sites within the incorporated limits of the City of Gretna.

2.1 THE CITY OF GRETNA PUBLIC WORKS PROJECTS

The responsibility for obtaining the proper permit documentation for all City of Gretna projects remains with the Department of Public works, which initiates the construction project. If a storm water permit is deemed necessary during the planning phase, then a Notice of Intent (NOI) will be submitted prior to any clearing and grubbing activities. A Storm Water Pollution Prevention Plan (SWPPP) will be developed and implemented to maintain compliance during the construction phase of the project. The Department of Public Works and the City Engineer are available to assist in the development of the SWPPP.

The Notice of Intent Form shall be submitted to the:

Louisiana Department of Environmental Quality
General Permits Unit
P.O. Box 82215
Baton Rouge, Louisiana 70884-2215

2.1.1 Storm Water Pollution Prevention Plan Development

For a new construction project, the Department of Public Works will make the determination to either develop the SWPPP internally or to include it as part of the contract with its design consultant.

Upon completion of the SWPPP by either the City or its consultant, it is included in the Contract Documents during the Bid Phase of the project. The Contract Documents shall also state the Contractor's responsibility to implement and document the SWPPP throughout the duration of the construction phase.

2.2 PRIVATE PROJECTS

A Building Permit is required for all developers/constructors prior to commencing construction activities. The City of Gretna utilizes building permits as the primary source of information to the applicant in determining the required permits (e.g., storm water permit). The Building Permit Division of the Inspection and Code Enforcement Department provides an application package to each applicant including permit requirements.

2.2.1 The City of Gretna Departments' Responsibility

The application package also provides information to the applicant on the different departments that could be involved during the permit review process. The primary departments involved during the permit review process are the Inspection and Code Enforcement Department (Building Official) and the Department of Public Works (DPW).

2.2.1.1 Inspection and Code Enforcement Department. The Building Permit Division of the Inspection and Code Enforcement Department is the primary source of information to the applicant. The City Building Inspector reviews all building construction plans and development permit applications. The City Plumbing Inspector approves all connections and discharges into the public sewer.

The Inspection and Code Enforcement Department does not issue a Building Permit until receiving approval from all departments involved in the review process.

2.2.1.2 Department of Public Works. The DPW is the department responsible for evaluating construction projects and notifying applicants of storm water permit and SWPPP requirements. During the Building Permit review period, DPW personnel notify the applicants of the requirement to obtain a storm water permit, as well as whether on-site storm water detention will be required as per City Ordinance.

SECTION 3

INSPECTION AND ENFORCEMENT PROCEDURES

By City of Gretna Ordinance Section 6-117, the Building Official is appointed as the floodplain administrator. As such, the Construction Site Inspection Program for storm water pollution control is administered and implemented by the Building Official, or the Inspection and Code Enforcement Department (ICED) of the City of Gretna.

No structure or land within the City of Gretna shall be located, altered, or have its use changed without full compliance with the City Codes, which include having the ICED control filling, grading, dredging and other development through the building permit process. It is the responsibility of the ICED to review and approve or deny all applications for development or building permits.

Part of the development permit process includes a submittal by the developer to the ICED which describes the extent to which any watercourse or natural drainage will be altered as a result of the proposed development. Approval or denial of the permit by the ICED is partly based on the following items:

- the danger to life and property due to erosion damage;
- the danger that material may be swept onto other lands; and
- the expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters expected at the site.

City of Gretna Ordinance Section 16-58 prohibits the discharge, intentional or negligent, of any pollutant in or upon any public place within the City. There are further City of Gretna Ordinances in place which prohibit accumulation of trash or debris declared to be a nuisance or public health detriment on private property. Specifically, Sections 15-3 through 15-5 prevent the accumulation on any property of trash, debris, weeds, unacceptable vegetative growth, etc. The owners of such properties will be cited by the ICED. Finally, Section 19-4 of the City of Gretna Code of Ordinances requires that sand dealers prevent material from entering any drainage systems in the city.

The ICED official does not indicate to the contractor or consultant specific control measures. Upon the applicant's request, the City Engineer personnel may provide alternatives available to control the contamination of storm water runoff.

Many of the practices and measures required for the pollution prevention plan represent feasible management practices and housekeeping procedures at construction sites. Storm water management controls, erosion and sediment controls, and inspection and maintenance have all been used to mitigate impacts from construction projects. In order to develop the most effective plan within a reasonable cost, the various alternatives available must be considered for construction sites individually.

3.1 INSPECTION PROCEDURES

The Building Official will visit the Construction Site during periodic inspection visits. As part of the inspection, the Official will investigate sources of potential storm water contamination and, with the assistance of the Gretna Department of Public Works (DPW), will verify the implementation and maintenance of construction site BMP's. The Building Official will identify any deficiencies or recommend additional practices, either structural or non-structural, which could reduce the amount of pollutants that could enter the storm drainage system.

Since by Ordinance sediment and floatable items must be prevented from entering the storm drainage system, the Building Official must check sediment and erosion control practices and the proper storage and use of chemical products. Construction site entrances and access routes are also identified and inspected for evidence of mud being tracked into the street. All existing and newly installed drainage infrastructure is inspected for sufficient protection. Finally, the Building Official inspects the solid waste collection area, site housekeeping, and the storage of oil-based and other products with the potential to enter the drainage system (e.g., cement mixer washout, concrete curing compound, muriatic acid, solvents, etc.).

The Building Official may suggest Construction Site BMP's needed (e.g., specific areas that the inspector has identified where sediment or pollutants are leaving the project site and entering the drainage system or the street) as per Section 4.

3.2 ENFORCEMENT

The ICED has power by Ordinance to cite and prosecute violators of any of the above Ordinances or regulations as pertain to public nuisances. The City of Gretna Police Department is also responsible for enforcement of nuisance property Ordinances.

The City of Gretna Department of Public Works (DPW) reviews all construction plans and specifications to ensure the installation and maintenance of erosion and sediment control at the construction site. Failure to comply will result in re-submittal of satisfactory plans or stoppage of work.

Further, Section 46-3 of the City of Gretna Code of Ordinances requires on-site detention facilities for certain proposed developments, such that the post-development ten-year rate of runoff will not exceed the pre-development ten-year rate of runoff. The DPW is responsible for approval of the detention system.

SECTION 4

RECOMMENDED BEST MANAGEMENT PRACTICES

Erosion, by the action of water and wind, is a natural process in which soil and rock material is loosened and removed. Soil erosion and sediment controls are measures that are used to reduce the amount of soil particles that are carried off a land surface and deposited in a receiving water. The soil erosion and sediment control measures should:

- Minimize the amount of disturbed soil.
- Prevent runoff from off-site areas from flowing across disturbed areas.
- Slow down the runoff flowing across the site.
- Remove sediment from on-site runoff before it leaves the site.

One of the best erosion and sediment controls is to minimize the amount of disturbed soil on the construction site. Minimizing the disturbed area will also decrease the amount of controls needed to remove the sediment from the runoff.

4.1 STABILIZATION PRACTICES

Preserving existing vegetation and revegetating disturbed soil as soon as possible is the most effective way to control erosion. The vegetative cover reduces erosion in four ways:

1. by shielding the soil surface
2. by improving the soil's water storage capacity
3. by slowing the storm water runoff velocity
4. by physically holding the soil in place with plant roots

There are two types of stabilization: temporarily stabilization and permanent stabilization. These two types are discussed below.

4.1.1 Temporary Stabilization

One of the alternatives for temporary stabilization of disturbed soils at construction sites chosen by the contractor could be by temporary seeding such areas. Temporary seeding means growing a short-term vegetative cover on disturbed soil areas that may be in danger of erosion. This practice uses fast-growing grasses whose root systems hold down the soils. However, straw mulch or plastic/geo-textile fabrics could also be used.

Temporary stabilization shall be performed on areas which have been disturbed by construction and which are likely to be redisturbed, but not for several weeks or more. Top soil stockpiles and disturbed portions of the construction site, where construction activity temporarily ceases for at least 14 days, shall be stabilized no later than 7 days from the last construction activity in the area.

4.1.2 Permanent Stabilization

Disturbed soils on the site where construction activities permanently cease shall be stabilized with permanent seed or any other permanent landscaping chosen by the contractor no later than 7 days after the last construction activity. The permanent seed shall consist of grasses or as deemed appropriated by the superintendent or as specified in the Contract Documents. If deemed possible, the preservation of existing vegetation will be maintained to minimize the impact of construction activities on the site.

4.2 STRUCTURAL CONTROLS

Structural practices are used in sediment and erosion control to divert storm water flow away from exposed areas, convey runoff, and prevent sediments from moving off site. Structural controls, such as silt fences, serve two purposes on the construction site; the first purpose is to prevent run-on to the construction site from undisturbed areas; and the second purpose is to prevent and/or slow down run-off from the construction site.

4.2.1 Silt Fences

A silt fence is a temporary measure consisting of posts for structural support with perforated filter fabric. The fence is installed along the down slope perimeter of the construction site to trap sediment on the uphill side.

4.2.2 Earth Dike

An earth dike is a berm of stabilized soil constructed for diversion of off-site runoff. Earth dikes prevent off-site runoff from entering the construction site and reduce the amount of potential contaminated runoff.

4.3 NON-STRUCTURAL CONTROLS

Best Management Practices also include non-structural procedures that help to eliminate or reduce pollutant loading in storm water runoff. Through management techniques and practices, it is possible to improve control of potential pollutants and reduce the number of releases to the storm water system. During construction activities, the following BMP's shall minimize the risk of spills or other accidental exposure of materials and substances to storm water runoff. The following good housekeeping practices could be followed on-site during the construction project, when applicable.

4.3.1 Pesticide and Herbicide Management

Storage procedures shall include:

- Maintaining protected storage area from weather elements.
- Securing storage area (i.e., locked gate).
- Keeping lids tightly closed.
- Maintaining storage areas cool and dry.
- Transferring material into a properly labeled container in case of a leak or damaged container.
- Inspecting containers periodically for leaks or deterioration.
- Lining storage area with plastic sheeting.

General disposal procedures shall include:

- Dispose through a licensed waste management firm or treatment, storage, and disposal company (TSD).

- Plan ahead so as to minimize the amount of product to be disposed. Whenever possible, all product will be used completely prior to container disposal.

- Triple rinse containers before disposal. Rinsate shall be placed in the spray tank at time of mixing. DO NOT DISPOSED OF RINSATE INTO STORM DRAIN.

4.3.2 Petroleum Products Management

All on-site vehicles shall be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage.

Storage procedures shall include:

- Lining the storage area with a double layer of plastic sheeting or similar material.

- Creating an impervious berm around the perimeter of the storage tank with a capacity of 110 percent of the volume of the container.

- Keeping all products clearly labeled.

- Keeping tank(s) off the ground.

- Communicate spill procedures. Trained spill response personnel will be on-site or on call at all times.

- Keeping materials for spill cleanups on-site and easily available. Spills shall be cleaned up immediately and the contaminated material properly disposed.

4.3.3 Construction Chemicals Management

- Plan ahead, buy and use only what is needed. Leftovers need to be stored, re-used, recycled or disposed of in a safe environmental manner.

- Hazardous products will be labeled properly. Material Safety Data Sheets will be available.

- Products will be kept in original containers. If the product needs to be transferred to another container, use the proper container and follow handling instructions for the specific product. Make sure to relabel the container.

- During storage, corrosive liquids will be kept away from flammable liquids.

4.3.4 Solid Waste Management

As with material storage, material disposal operations pose a potential threat for storm water contamination. The following good housekeeping practices shall be followed regarding solid waste control.

- Dumpster areas shall be clean.

- Storage units shall be intact without obvious damage or leaks.

- Storage units shall have lids or covers that will be placed over the containers prior to rainfall.

- Provide waste collection before containers overflow.

4.3.5 Truck Washouts

Trucks hauling concrete shall not be allowed to wash out or discharge surplus concrete or drum wash water on the site. Only under emergency circumstances will trucks be allowed to dispose of surplus concrete. Under these circumstances, the concrete shall be disposed of in an area where the concrete wash can harden, be broken up, and then be disposed of in dumpsters. The location of this area will not be subject to surface water runoff.

4.4 WASTE DISPOSAL PRACTICES

Material disposal operations pose a potential threat for storm water contamination. As a result, good management and proper disposal of building materials, and other construction site wastes are important parts of pollution prevention. There could be three types of waste materials at the construction site as described below.

4.4.1 Construction Waste

All construction waste shall be collected and stored in a closed and secured metal dumpster. A licensed solid waste management company shall provide the dumpster and be responsible for hauling the construction waste to a licensed solid waste disposal facility.

The following steps shall be taken to ensure proper disposal of construction wastes:

- Select a designated waste collection area on-site;
- Provide an adequate number of containers with lids or covers that can be placed over the container prior to rainfall;
- Arrange for waste collection before containers overflow;
- If a container does overflow, provide cleanup immediately;
- No construction waste will be buried on-site under any circumstances; and
- No hazardous waste materials will be disposed in the construction waste dumpster.

4.4.2 Hazardous Waste

A variety of wastes such as paints, cleaning solvents, and concrete curing compounds and additives encountered at construction sites are classified as hazardous wastes. All hazardous waste materials shall be disposed of in a proper manner as specified by applicable state and federal regulations or by the manufacturers of such products.

4.4.3 Sanitary Waste

A licensed sanitary waste management contractor shall collect all sanitary waste from any portable units at the construction site as needed.

4.5 OFF-SITE VEHICLE TRACKING

All construction entrances shall be stabilized (e.g., gravel bed, temporary pavement) to help reduce vehicles tracking sediments off-site. Dump trucks hauling material from the construction site shall be properly covered. These control measures will also minimize dust generation.

SECTION 5

PERSONNEL TRAINING

5.1 PERSONNEL TRAINING

The Inspection and Code Enforcement Department Official regularly attends seminars and continuing education programs on topics relating to construction site inspections, including

- Pollution Control Laws and Regulations;
- Construction Site Runoff Pollution Prevention Practices; and
- Development of Storm Water Pollution Prevention Plans.

In addition, the City Engineer is available to assist the Official in areas relating to construction site inspections.

APPENDIX L

PUBLIC EDUCATION PROGRAM

FOR

THE CITY OF GRETNA, LOUISIANA

NPDES MS4 PERMIT

May 2022

Submitted by:

The City of Gretna, Louisiana

Report Prepared By:

BURK-KLEINPETER, INC.
4176 Canal St.
New Orleans, Louisiana 70119
(504) 486-5901

JEFFERSON PARISH NPDES MS4 PERMIT
SUMMARY OF PUBLIC EDUCATION PROGRAMS

THE CITY OF GRETNA
JEFFERSON PARISH, LOUISIANA

This document will provide a summary report of the various Public Education Programs undertaken by the City of Gretna in accordance with Part V.C.6.entitled "Summary of enforcement actions, inspections & public education programs" of the referenced Permit. Public Education Programs are those which encourage public reporting of illicit or improper discharges into the MS4, the proper management of used motor vehicle fluids and household hazardous wastes, and the proper use, application and disposal of pesticides, herbicides and fertilizers.

Grade School Poster and Essay Contest

As a means of preventing pollution by increasing public awareness of issues related to municipal storm water pollution, Jefferson Parish and its copermittees have sponsored the grade-school essay/poster contests with the title of "Nonpoint Source Pollution and Solutions" annually since 1999. The contest encourages students to investigate and develop solutions to prevent pollution generated from nonpoint sources, such as the illegal disposal of used motor vehicle fluid and other household hazardous waste. Contest guidelines recommend that entries depict or describe at least one source of nonpoint source pollution along with an appropriate solution. Entry forms are sent to all Jefferson Parish public, private, and parochial schools, and any student in grades 3-8 is eligible to participate. The contest entry form lists the web sites of the Jefferson Parish Environmental Department, the Louisiana Department of Environmental Quality, and the U.S. Environmental Protection Agency as possible sources for information on this topic.

The contest is set up in two phases: Students in grades 3-5 are eligible to submit a 24"x36" poster, while those in grades 6-8 are required to submit a one-page essay. Entries are judged by volunteer judges with backgrounds in local environmental issues. Judging is based on theme and content, as well as organization and development, grammar, and style. Prizes are awarded for first, second, and third place in each grade level, as well as overall winners. Selected posters and essays are displayed in two Jefferson Parish Regional Public Libraries and two local shopping malls. The event is publicized in the local news media. Donations collected from corporate sponsors are spent on awards and incidentals of the contest.

Miscellaneous Public Education Programs

- Parishwide informational door hangers. The MS4 copermittees discussed the possibility of having volunteer groups go out into neighborhoods and distribute door hanger fliers on homes. The copermittees discussed the design, development, content, and distribution of such markers.

- Installation of storm drain markers instructing no dumping or illegal disposal. Jefferson Parish ordered 1,000 vinyl storm drain markers that read "Dump No Waste, Drains to

Waterways", which were mounted on storm drains in various locations as part of a pilot project to discourage dumping down drains. The markers were installed by volunteer groups and Parish employees. Implementation is part of Jefferson Parish's program to reduce floatables.

- Classroom presentations with Jefferson Parish's "Enviroscape" model. Jefferson Parish owns an educational water system model available for event or classroom education. Several Jefferson Parish Grade School Classroom model presentations are made annually by Jefferson Parish and the copermittees.

- Parishwide informational mail out distributions. As a result of the City of Gretna's participation in the Community Rating Service (CRS) Program of the National Flood Insurance Program (NFIP), it must participate in a public education campaign which includes a once-a-year mail out distribution to those residents or businesses as required by the Program. The topics of the mail outs are listed in the following table:

Topic	Distribution
Flood Insurance Rate Map Zone Information	Lending Institutions, Real Estate Agents, Insurance Agents
Floodplain Regulations, Flood Hazard, Flood Protection	Every Household *
Flood Insurance	Every Household
Building Permit Information, Drainage System Maintenance **	Every Household

* Defined as those residential addresses in the City of Gretna which receive utility bills.
** Some information pertinent to the MS4 Program is contained in this mail out, as follows:

> "In the City of Gretna a permit is required for any type of development including land fill and excavations. To determine what steps may need to be taken to obtain these required permits you should contact the Office of the Gretna Building Inspector at 363-1563 for commercial and residential development before any fill or excavation of any property. Illegal land filling, dumping, or excavation of land or drainage ways should be reported to this Office."

And further...

> "The City of Gretna Department of Public Works has a regular program of drainage system maintenance, whereby open canals and ditches and surface detention basins are mowed and inspected for blockages. You can help by cleaning catch basins in front of your property. Also avoid dumping debris in catch basins, drainage ditches, and canals. Debris can cause the drainage system to function improperly and cause flooding. Call the Gretna Department of Public works (Streets and

Drainage) at 363-1579 if you have questions, specific drainage problems, or to report illegal dumping. The City of Gretna has an ordinance that prohibits dumping of any material in the drainage system."

Public Education included in other MS4 Programs

- The "Guidance Document for Providing Technical Criteria for Post-Construction Pollutant Controls in Areas of New Development and Re-development" defines measures to be taken by the City of Gretna to insure that water quality after development is *at least* no worse than that before development. The scope includes requirements for development permits, land use planning, utility inspections, waste disposal practices, greenspace provisions, storm water detention provisions, and public education programs.

- The "Pesticide, Herbicide, and Fertilizer Program" summarizes the City of Gretna's employee training and certification, public education, chemical storage and labeling, application, and disposal practices and procedures to reduce the discharge of pollutants to the waters of the United States from the storage, application, and disposal of chemicals to the Maximum Extent Practicable.

APPENDIX M

INDUSTRIAL & HIGH RISK

MONITORING PROGRAM

FOR

THE CITY OF GRETNA

NPDES MS4 PERMIT

May 2022

Prepared For:

The City of Gretna, Louisiana

Prepared By:

BURK-KLEINPETER, INC.
4176 Canal St.
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SECTION 1

INTRODUCTION

A final National Pollutant Discharge Elimination System (NPDES) Permit was issued to Jefferson Parish, Louisiana; the Louisiana Department of Transportation and Development – District 02; the City of Gretna; the City of Harahan; the City of Kenner; and the City of Westwego to discharge from all portions of the Jefferson Parish Municipal Separate Storm Sewer System (MS4) to waters of the United States in accordance with the Storm Water Management Program. The final NPDES Permit was issued by the U. S. Environmental Protection Agency (USEPA) on January 17, 1997, and became effective March 1, 1997.

The MS4 permit requires Jefferson Parish and the Cities of Gretna, Harahan, Kenner, and Westwego to identify Industrial and High Risk (I&HR) facilities that discharge their stormwater into the Jefferson Parish Storm Sewer System. Furthermore, these facilities may be subject to inspection and/or monitoring requirements.

Part II, Section A.9.c, "The Industrial & High Risk Runoff Monitoring Program", of the permit identifies the criteria for the development of an Industrial and High Risk Monitoring Program and the facilities subject to this program as follows:

"c. The Industrial & High Risk Runoff Monitoring Program shall monitor storm water discharges from Type 1 and 2 facilities that discharge to the Municipal Separate Storm Sewer System. Analytical monitoring data collected by a facility to comply with, or apply for, a State or NPDES discharge permit (other than this permit) may be used on a parameter-by-parameter basis, to avoid unnecessary cost and duplication of effort. Frequency of monitoring shall be established by the permittees.

Industrial facilities within the City of Gretna that fall within the NPDES Permit criteria have been entered into a database to be monitored, either visually and/or analytically, by City personnel. Within the City of Gretna, there was one (1) facility identified as a candidate for I&HR Monitoring, as listed on the following page.

SECTION 2

IDENTIFICATION OF FACILITIES SUBJECT TO PROGRAM

2.1 PROCESS USED TO DETERMINE CURRENT LIST

In order to properly identify potential I&HR facilities discharging to Jefferson Parish's MS4, several databases were searched and used. Only the facilities located within Jefferson Parish's MS4 permit drainage area (inside the levee system) are included in the I&HR Monitoring List. The following data bases were used to develop the list of I&HR facilities subject to monitoring:

- List of EPCRA Title III, Section 313 facilities. The list of facilities was provided by the Louisiana Department of Environmental Quality – Office of the Secretary, for the reporting year 1996.

- VISTA, a regulatory data retrieval firm, provided the following databases:

    1. NPDES Individual Permit Holders;
    2. Treatment, Storage, and Disposal Facilities;
    3. Solid Waste Facility Information;
    4. Open Dumps; and
    5. Generators of Hazardous Waste.

- The 1998 Directory of Louisiana Manufacturers, which is published in cooperation with the Louisiana Department of Economic Development.

- Database of Storm Water General Permit Holders maintained by the USEPA.

The USEPA published Phase I stormwater regulations on November 16, 1990. These regulations require certain categories of dischargers of storm water to apply for NPDES permits. In addition, these regulations require facilities with storm water discharges associated with industrial activity to apply for storm water permits even if discharging through the MS4.

Storm water discharges associated with industrial activity addresses point source discharges of storm water from eleven major categories of industrial activities. The USEPA grouped industrial discharges of storm water into twenty-nine sectors, based on the nature of the industrial activity, type of material handled (i.e., raw products), and material management practices. Additionally, Standard Industrial Classification (SIC) Codes were used to develop sub-sectors within the 29 industrial sectors, each of which has specific monitoring requirements, as promulgated by the USEPA on September 29, 1995 in the Multi-Sector General Storm Water Permit (MSGP).

Monitoring requirements are classified as analytical or visual examination of storm water discharges. Actual monitoring may vary for a given facility depending on industrial activity and/or material management practices.

The methodology used to develop the I&HR Monitoring List was to collect all the databases mentioned above and enter them into a common database and sort by SIC codes. Facilities with SIC codes falling into any of the sub-sectors with analytical monitoring requirements as developed by the USEPA for the MSGP were subsequently entered into the I&HR Monitoring List.

In addition to facilities with SIC codes covered by the MSGP, municipal landfills; municipal waste, treatment, storage, and disposal facilities, such as POTWs; and facilities subject to EPCRA Title III, Section 313, were also included in the list.

The I&HR Monitoring List consists of municipal landfills, industrial facilities subject to EPCRA Section 313 reporting requirements; and industrial facilities that are required to perform analytical monitoring under the MSGP, as determined by their SIC codes. There are no hazardous waste treatment, disposal, and recovery facilities within the MS4.

2.2 PROCEDURE FOR DETERMINATION OF ADDITIONAL FACILITIES

The City of Gretna conducted an audit of the licenses of its industrial facilities within the city limits by using the computer database. The search excluded some of the facilities on the original list supplied by Jefferson Parish due to inaccurate municipality listing (i.e., not in Gretna City Limits), nature of activity within the City (i.e., office space only, no substantial pollutant loading in discharge), closure of the facility, or relocation of the facility outside of the City Limits.

Further, the search revealed no additional landfills, municipal waste facilities, hazardous waste facilities, or other such industrial or commercial pollutant-discharging facilities within the City of Gretna that were not on the list submitted by Jefferson Parish. Thus, there were no facilities added to the original list.

2.3 DETERMINE UNPERMITTED FACILITIES - PRIORITY

The City of Gretna is a relatively small, primarily residential community. There are very few areas zoned for Industrial uses. Further, many City employees have been with the City for a long period of time, and their knowledge of the City is thorough. Through site inspection of the small industrial areas and discussions with City employees, all of the industrial facilities within the City are known. A search of these facilities on the City's computerized database shows that there are no industrial facilities within the City of Gretna which are unpermitted according to City records.

2.4 REVIEW EXISTING FACILITY PERMITS

The only facility within the City which has an active LPDES Permit is the Crompton & Knowles Corporation (a.k.a. CHR Hansen Ingredient Technology Corporation). The existing permit (No. LA0103225) allows the facility to intermittently discharge uncontaminated storm runoff into the Verret Canal from three (3) outfalls on the facility site in accordance with the effluent limitations, monitoring requirements, and other conditions set forth in the Permit. Any storm water leaving the facility other than from the permitted outfalls is a violation of the Permit. The Permit specifies discharge limitations on flow, TOC, oil and grease, and pH. Further, there shall be no discharge of floating solids or visible foam.

The City has obtained and reviewed a copy of the permit. Further information about the Permit is found in Section 3 to follow.

2.5 USE OF INDUSTRIAL AND HIGH RISK INSPECTION PROGRAM INSPECTION REPORTS IN DETERMINING FACILITIES SUBJECT TO PROGRAM REQUIREMENTS

If inspection of any of the facilities listed on the I&HR Inspection List identifies that pollutants are being discharged into the MS4 from the facilities, the City, along with its consulting Engineer will develop a program to control such pollutant loadings into the MS4 from the facilities' stormwater discharges. This program will be devised upon review of the loading, type, and frequency of pollutants discharged from the facility.

Procedures for establishing and implementing control measures will be prioritized by City of Gretna personnel.

SECTION 3

MONITORING CRITERIA

3.1 CLASSIFICATION OF A FACILITY AS A TYPE 1 FACILITY

Type 1 facilities are municipal landfills; hazardous waste treatment, disposal, and recovery facilities; industrial facilities that are subject to EPCRA Title III, Section 313; and industrial facilities the permittee(s) determines are contributing a separate pollutant loading to the Municipal Separate Storm Sewer System.

3.2 REQUIREMENTS

According to the terms of the MS4 Permit, these industries must be inspected at least once during the MS4 NPDES permit term (i.e., at least once every five years). This minimum requirement will be exceeded when circumstances dictate due to complaints or visual observation of pollution.

3.3 PARAMETERS

Analytical monitoring of the following parameters shall be conducted at Type 1 facilities which discharge to the MS4:

a) any pollutants limited in an existing NPDES permit for a subject facility;
b) oil and grease;
c) chemical oxygen demand (COD);
d) pH;
e) biochemical oxygen demand, five-day (BOD5);
f) total suspended solids (TSS);
g) total phosphorous;
h) total Kjeldahl nitrogen (TKN);
i) nitrate plus nitrite nitrogen; and
j) any information on discharges required under 40 CFR 122.21(g)(7)(iii) and (iv).

In lieu of the above parameter list, the permittees may alter the monitoring requirement for any individual Type 1 facility:

i) to coincide with the corresponding industrial sector-specific monitoring requirements of the Multi-Sector General Permit or any applicable general permit issued after September 29, 1995. This exception is not contingent on whether a particular facility is actually covered by the general permit.

or

j) to coincide with the monitoring requirements of any individual permit for the stormwater discharges from that facility.

The optional monitoring list must be supplemented by any pollutants of concern identified by the permittees for that facility.

3.4 USE OF EXISTING NPDES/LPDES MONITORING REQUIREMENTS

According to the Permit, analytical monitoring data collected at the facility to comply with NPDES/LPDES discharge permits can be used on a parameter-by-parameter basis in order to avoid unnecessary cost and duplication of effort in monitoring the storm water discharge from the facility.

The Crompton & Knowles Corporation (a.k.a. CHR Hansen Ingredient Technology Corporation) has an active LPDES permit (No. LA0103225) to intermittently discharge uncontaminated storm runoff into the Verret Canal from three (3) outfalls on the facility site in accordance with the effluent limitations, monitoring requirements, and other conditions set forth in the Permit. Any storm water leaving the facility other than from the permitted outfalls is a violation of the Permit.

The Permit specifies discharge limitations on flow, TOC, oil and grease, and pH. Further, there shall be no discharge of floating solids or visible foam.

3.5 SELF-MONITORING REPORTING FORM

The Crompton & Knowles facility currently has a contract with an independent testing laboratory to collect samples of storm water discharge from the facility. Monitoring is conducted according to the analytical requirements and procedures listed in 40 CFR Part 136.

Flow estimates are made once a month, and grab samples of the discharge are monitored quarterly for TOC, oil and grease, and pH. The Corporation must file quarterly Discharge Monitoring Reports on a standard EPA No. 3320-1 form. These reports are kept for a period of three (3) years from the date of sample measurement.

SECTION 4

NO EXPOSURE CERTIFICATION

4.1 CRITERIA

Part II Section A.9.c.(3) "No Exposure Certification" of the permit identifies criteria for facilities that may be subject to monitoring requirements to exclude themselves from those requirements as follows:

> "(3) No Exposure Certification: In lieu of analytic monitoring, the permittees may accept a certification from a facility that raw and waste materials, final and intermediate products, by-products, material handling equipment or activities, industrial machinery or operations, or significant materials from past industrial activity are not presently exposed to storm water for the certification period. Where the permittees accept a "no exposure" certification, the permittee(s) shall conduct periodic facility inspections (not less than once per permit term) to verify facility's "no exposure" exemption."

4.2 PROCEDURES FOR VERIFYING FACILITIES' ELIGIBILITY FOR NO EXPOSURE CERTIFICATION

The City of Gretna provided a "No-Exposure Certification" Form to the business identified as a candidate for I&HR Monitoring on October 23, 1998. A cover letter advised the manager of the program requirements and contained instructions for signing and returning the form so that the facility can be excluded from the I&HR Monitoring List for submittal to the EPA (exempted facilities will still be subject to the I&HR Inspection Program). The letter also requested completion of the form by November 16, 1998; otherwise if no response is received, the facility will remain on the Monitoring List and be contacted in the future with monitoring requirements.

The "No-Exposure Certification" Form consisted of information on the facility itself (e.g., description of activities performed, SIC Code information, and NPDES Permit information) and a certification checklist, comprised of a "yes/no" response to the following questions:

1. Are maintenance activities for industrial machinery, equipment, or vehicles used in material handling, exposed to storm water?
2. Are materials associated with maintenance activities, such as oils, lubricants and fuels exposed to storm water?
3. Are raw material products stored outdoors?
4. Are intermediate and/or final products stored outdoors?
5. Are industrial activities, such as manufacturing conducted outdoors?

6. Are waste materials and/or by-products stored or contained in open or deteriorated storage tanks, drums, or containers?
7. Are there non-storm water discharges to the storm water drainage system?

A "Yes" answer to any of these questions indicates the potential for exposure and therefore the facility would not be certified as "no-exposure".

We received no response from this business; and as stated clearly in the letter, it will thus remain on the Monitoring List for the City of Gretna.

SECTION 5

DATA MANAGEMENT

In order to avoid unnecessary cost and duplication of effort, analytical monitoring data collected by the facility to comply with the LPDES discharge permit will be used on a parameter-by-parameter basis by the City of Gretna for monitoring of this facility in terms of the MS4 Permit.

The Corporation must file quarterly Discharge Monitoring Reports on a standard EPA No. 3320-1 form. These reports are kept for a period of three (3) years from the date of sample measurement. All reports submitted to the LDEQ Office of Water Resources are also transmitted to the Southeast Regional Office Water Quality Management Division.

As such, the City of Gretna itself will not maintain monitoring records or reports.

IMPLEMENTATION AND AUGMENTATION OF THE STORM WATER MANAGEMENT PROGRAM FOR JEFFERSON PARISH MS4 PERMIT

FACILITIES SUBJECT TO THE INDUSTRIAL AND HIGH RISK (I&HR) MONITORING PROGRAM

A final National Pollutant Discharge Elimination System (NPDES) Permit was issued to Jefferson Parish, Louisiana; the Louisiana Department of Transportation and Development – District 02; the City of Gretna; the City of Harahan; the City of Kenner; and the City of Westwego to discharge from all portions of the Jefferson Parish Municipal Separate Storm Sewer System (MS4) to waters of the United States in accordance with the Storm Water Management Program. The final NPDES Permit was issued by the U. S. Environmental Protection Agency (USEPA) on January 17, 1997, and became effective March 1, 1997.

The MS4 permit requires Jefferson Parish and the Cities of Gretna, Harahan, Kenner, and Westwego to identify Industrial and High Risk (I&HR) facilities that discharge their stormwater into the Jefferson Parish Storm Sewer System. Furthermore, these facilities may be subject to inspection and/or monitoring requirements.

Part II, Section A.9.c, "The Industrial & High Risk Runoff Monitoring Program", of the permit identifies the criteria for the development of an Industrial and High Risk Monitoring Program and the facilities subject to this program as follows:

"c. *The Industrial & High Risk Runoff Monitoring Program* shall monitor storm water discharges from Type 1 and 2 facilities that discharge to the Municipal Separate Storm Sewer System. Analytical monitoring data collected by a facility to comply with, or apply for, a State or NPDES discharge permit (other than this permit) may be used on a parameter-by-parameter basis, to avoid unnecessary cost and duplication of effort. Frequency of monitoring shall be established by the permittees.

Type 1 facilities are municipal landfills; hazardous waste treatment, disposal, and recovery facilities; industrial facilities that are subject to EPCRA Title III, Section 313; and industrial facilities the permittee(s) determines are contributing a separate pollutant loading to the Municipal Separate Storm Sewer System. Analytical monitoring of the following parameters shall be conducted at Type 1 facilities which discharge to the MS4:

(a) any pollutants limited in an existing NPDES permit for a subject facility;
(b) oil and grease;

(c) chemical oxygen demand (COD);
(d) pH;
(e) biochemical oxygen demand, five-day (BOD_5)
(f) total suspended solids (TSS);
(g) total phosphorous;
(h) total Kjeldahl nitrogen (TKN);
(i) nitrate plus nitrite nitrogen; and
(j) any information on discharges required under 40 CFR 122.21(g)(7)(iii) and(iv).

In lieu of the above parameter list, the permittees may alter the monitoring requirement for any individual Type 1 facility:

(i) to coincide with the corresponding industrial sector-specific monitoring requirements of the Multi-Sector General Permit or any applicable general permit issued after September 29, 1995. This exception is not contingent on whether a particular facility is actually covered by the general permit.

or

(ii) to coincide with the monitoring requirements of any individual permit for the stormwater discharges from that facility.

The optional monitoring list must be supplemented by any pollutants of concern identified by the permittees for that facility.

The purpose of this document is to identify and list all I&HR facilities within Jefferson Parish that may be subject to the Monitoring Program. Only the facilities located within Jefferson Parish's MS4 permit drainage area (inside the levee system) are included in the I&HR Monitoring List. Therefore, facilities located in the towns of Grand Isle and Jean Lafitte were not included. The Monitoring program is currently under development.

In order to properly identify potential I&HR facilities discharging to Jefferson Parish's MS4, several databases were searched and used. The following data bases were used to develop the list of I&HR facilities subject to monitoring:

- List of EPCRA Title III, Section 313 facilities. The list of facilities was provided by the Louisiana Department of Environmental Quality – Office of the Secretary, for the reporting year 1996.

- VISTA, a regulatory data retrieval firm, provided the following databases:

  1. NPDES Individual Permit Holders;
  2. Treatment, Storage, and Disposal Facilities;

3. Solid Waste Facility Information; and
4. Open Dumps;
5. Generators of Hazardous Waste.

- The *1998 Directory of Louisiana Manufacturers*, which is published in cooperation with the Louisiana Department of Economic Development.

- Database of Storm Water General Permit Holders maintained by the USEPA.

List Development Criteria

The USEPA published Phase I stormwater regulations on November 16, 1990. These regulations require certain categories of dischargers of storm water to apply for NPDES permits. In addition, these regulations require facilities with storm water discharges associated with industrial activity to apply for storm water permits even if discharging through the MS4.

Storm water discharges associated with industrial activity addresses point source discharges of storm water from eleven major categories of industrial activities. The USEPA grouped industrial discharges of storm water into twenty-nine sectors, based on the nature of the industrial activity, type of material handled (i.e., raw products), and material management practices. Additionally, Standard Industrial Classification (SIC) Codes were used to develop sub-sectors within the 29 industrial sectors, each of which has specific monitoring requirements, as promulgated by the USEPA on September 29, 1995 in the Multi-Sector General Storm Water Permit (MSGP).

Monitoring requirements are classified as analytical or visual examination of storm water discharges. Actual monitoring may vary for a given facility depending on industrial activity and/or material management practices.

The methodology used to develop the I&HR Monitoring List was to collect all the databases mentioned above and enter them into a common database and sort by SIC codes. Facilities with SIC codes falling into any of the sub-sectors with analytical monitoring requirements as developed by the USEPA for the MSGP were subsequently entered into the I&HR Monitoring List.

In addition to facilities with SIC codes covered by the MSGP, municipal landfills; municipal waste, treatment, storage, and disposal facilities, such as POTWs; and facilities subject to EPCRA Title III, Section 313, were also included in the list.

This preliminary I&HR Monitoring List consists of municipal landfills, industrial facilities subject to EPCRA Section 313 reporting requirements; and industrial facilities that are required to perform analytical monitoring under the MSGP, as determined by their SIC codes. There are no hazardous waste treatment, disposal, and recovery facilities within the MS4.

Part II, Section A.9.c.(3), "No Exposure Certification" of the permit identifies criteria for facilities that may be subject to monitoring requirements to exclude themselves from those requirements as follows:

> (3) No Exposure Certification: In lieu of analytic monitoring, the permittees may accept a certification from a facility that raw and waste materials, final and intermediate products, by-products, material handling equipment or activities, industrial machinery or operations, or significant materials from past industrial activity are not presently exposed to storm water for the certification period. Where the permittees accept a "no exposure" certification, the permittee(s) shall conduct periodic facility inspections (not less than once per permit term) to verify the facility's no exposure exemption.

As a result, the permittees are currently developing a form letter for submittal to facilities identified for possible inclusion on the final I&HR Monitoring List. Upon receipt of a no exposure certification from the facilities, a subset list of facilities exempted from the I&HR Monitoring Program will be developed and submitted to the USEPA. The exempted facilities will still be subject to the I&HR Inspection Program.

The result of the database search and investigation resulted in a total of 69 facilities within the MS4 boundary that may be subject to the I&HR Monitoring Program. The attached tables include a list of the facilities for Jefferson Parish and the cities of Gretna, Kenner and Westwego. No facilities subject to the I&HR Monitoring Program were identified for the City of Harahan.

MUNICIPAL SEPARATE STORM SEWER SYSTEM
THE CITY OF GRETNA, JEFFERSON PARISH, LA

NO-EXPOSURE CERTIFICATION

FACILITY INFORMATION

Facility Name:_____

Facility Location:_____

_____

Longitude:_____Latitude:

Facility Manager:_____

Phone Number:_____Fax Number:

Description of Activities Performed at the Facility:_____

_____

_____

_____

Standard Industrial Classification (SIC):

NPDES Permit (s):

CERTIFICATION CHECKLIST

Please answer the following questions to the best of your knowledge. Answering "yes" to any of the following questions indicates the potential for exposure and therefore the facility cannot be certified as "no-exposure".

1. Are maintenance activities for industrial machinery, equipment, or vehicles used in material handling, exposed to storm water? YES_____NO_____
2. Are materials associated with maintenance activities, such as oils, lubricants and fuels exposed to storm water? YES_____NO_____
3. Are raw material products stored outdoors? YES_____NO_____
4. Are intermediate and/or final products stored outdoors? YES_____NO_____
5. Are industrial activities, such as manufacturing conducted outdoors? YES_____NO_____
6. Are waste materials and/or by-products stored or contained in open or

deteriorated storage tanks, drums, or containers? YES_____NO_____

7. Are there non-storm water discharges to the storm water drainage system? YES_____NO__

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 a fine and imprisonment for known violations.

Signature:_____ Date:_____

Name (Please type or print):_____

Title:_____

APPENDIX N

POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

FOR

THE CITY OF GRETNA

NPDES MS4 PERMIT

May 2022

Prepared For:

The City of Gretna, Louisiana

Prepared By:

BURK-KLEINPETER, INC.
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New Orleans, Louisiana 70119
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SECTION 1

INTRODUCTION

Municipalities conduct numerous activities that can pose a threat to water quality if practices and procedures are not in place to prevent pollutants from entering the MS4. These activities include winter road maintenance, minor road repairs and other infrastructure work, automobile fleet maintenance, landscaping and park maintenance, and building maintenance. Municipalities also conduct activities that remove pollutants from the MS4 when performed properly, such as parking lot and street sweeping and storm drain system cleaning. Finally, municipal facilities can be sources of stormwater pollutants if BMPs are not in place to contain spills, manage trash, and handle nonstormwater discharges.

The main goals of the Pollution Prevention Good Housekeeping for Municipal Operation Program are as follows:

- To develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of prevention or reducing pollutant runoff from municipal operations.
- Train employees 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.
- Define appropriate BMPs for pollution prevention/good housekeeping for municipal operations and measurable goals for each BMP.

In addition to the requirements set forth by the EPA the City of Gretna Pollution Prevention Good Housekeeping Program Includes:

- Operation and maintenance as an integral component of all storm water management programs. The intent is to improve the efficiency of all these programs and require new programs where necessary.
- Maintenance activities, maintenance schedules, and long-term inspection procedures for structural and non- structural storm water controls to reduce floatables and other pollutants discharged from the City's MS4.
- Controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage areas, salt/sand storage locations, and disposal areas operated by the City of Gretna, and waste transfer stations.

- Procedures for properly disposing of waste removed from the separate storm sewers and areas listed above.
- Ways that new flood management projects assess the impacts on water quality and examine existing projects for incorporating additional water quality protection devices or practices.

Measurable goals, which are required for each minimum control measure are meant to gauge permit compliance and program effectiveness. The measurable goals, as well as the BMP's should consider the needs and characteristics of the operator and the area served by its MS4.

Measurable goals are described in the Phase II rule as BMP design objectives or goals that quantify the progress of program implementation and the performance of BMPs. They are objective markers or milestones that will track the progress and effectiveness of the BMPs in maintain or reducing the amount of pollutants in the MS4. Measurable goals allow permitting authorities to assess the effectiveness of storm water controls.

Consistent with the Phase II MS4 requirements, each permittee shall develop and implement Measureable goals to assess the effectiveness of the BMP used to satisfy the requirements of the Control Measures.

The EPA has developed a Measurable Goals Guidance for MS4s that is designed to help program managers comply with the requirements to develop measurable goals.

Measureable goals for the program will include:

- Provide a Pollution Prevention/Good Housekeeping Plan for municipal employees involved in activities that could potential contribute to introducing pollutants to the storm water sewer system. This manual will educate them on pollution prevention of the MS4 system.
- Training will be provided to all Municipal employees, whose duties could potentially pollute the MS4, which will show proper techniques for pollution prevention.
- All new employees with the above mention duties will be required to understand and adhere to the pollution prevention and good housekeeping plan's policies.

SECTION 2

BMP/MEASURABLE GOALS/IMPLEMENTATION

The following is a list of BMP's for each control measure along with their measurable goals, which have been established by the City of Gretna. The City will implement the following BMPs to achieve compliance with the requirements of the Pollution Prevention/Good Housekeeping for Municipal Operations.

Automobile Maintenance

Pollution Prevention/Good Housekeeping for Municipal Operations

Introduction: The automobile maintenance pollution prevention measure involves the creation of a program which incorporates public education and training for municipal service vehicles. These vehicles include but are not limited to public works, city, police, fire, parks and recreation, heavy and light earth moving/maintenance equipment. This involves education on practices that control pollutants and reduce storm water impacts from automotive maintenance facilities. This will reduce the amount of pollutants (hydrocarbons, trace metals, solvents antifreeze, brake fluid, battery acid, motor oils, etc...) introduced into the system

Goal: To reduce or eliminate the amount of pollutants discharged from the maintenance and upkeep of vehicles and equipment used by the City of Gretna.

Implementation: The following guidelines should be followed to reduce or eliminate the amount of pollutants discharged into the MS4 from maintenance facilities are as follows:

- Spills should be cleaned up immediately, and water should not be used for clean up whenever possible. This includes the use of dry absorbent materials.
- Storm drains that are connected to the storm water sewer system should either be completely sealed off or filtered to minimize the amount of pollutants entering the stormwater system.
- Cleanouts for oil and grit separators should be utilized and maintained.
- Proper disposal of vehicle fluids and components. This includes oil antifreeze, brake fluid, batteries, oils, fuels, etc...
- Reduce number of solvents used for repair and clean up of spills
- Use of solvents and cleaning products in a centralized area which allows for ease of pollution prevention.
- Use of drip pans and draining boards which limit the chances of spills.
- Use of non-hazardous cleaners and solvents whenever possible
- Use recycled products and components. This includes engines, oil, transmission fluid, antifreeze, and hydraulic fluid.
- Employee training and public outreach as necessary to reinforce proper disposal practices.
- Conduct maintenance work such as fluid indoors.
- Monitor vehicles and equipment regularly, checking for fluid leaks. Immediately fix any leaks that are observed.
- Never pour wastes down floor drains, sinks, or outdoor storm inlets that are connected to the MS4.
- Obtain and use drain mats in the case of a fluid spill.

- Store all fluids in proper containers. Follow factory recommended storage procedures at all times.
- Locate storage and stock pile areas for fluids and components in areas of low traffic. To minimize risk of an incident that would cause the container to be punctured and then leak contents.
- Develop new policy and procedure which will add to the prevention of discharging pollutants into the MS4.

Vehicle Washing

Pollution Prevention/Good Housekeeping for Municipal Operations

Introduction: This management measure involves the education of municipal fleets (public works, police, fire, parks and recreation, etc.) on the water quality impacts of the outdoor washing of automobiles and how to avoid allowing polluted runoff to enter the storm drain system. Car washing has the potential to result in a high load of nutrients, metals, and hydrocarbons during dry weather condition in many watersheds, as the detergent-rich water used to wash the grim off our cars flows down the street and into the storm drain. Commercial facilities often recycle their water or are required to treat their wash water discharger prior to release to the sanitary sewer system.

Goal: To limit or eliminate pollutants entering the MS4 by controlling runoff from municipal vehicle washing operations.

Implementation: The following guidelines should be followed to reduce or eliminate the amount of pollutants discharged into the MS4 from municipal vehicle washing operations are as follows:

- Utilize commercial car wash for municipal vehicles. Commercial car washes are required to capture water from washing operations and release into the sanitary sewer system.
- Wash all vehicles in a municipal facility that has a wash area designed to collect and hold wash water before it is discharged into the sanitary sewer system.
- Washing cars of gravel, grass, wash racks, or other permeable surfaces.
- Using hoses with nozzles that automatically turn off when left unattended.
- Using only biodegradable detergents that are phosphate-free and non-toxic.
- Municipal facilities that store vehicles should stencil their storm drains to remind employees to wash vehicles within the designated wash area.
- Immediately clean up any spills that result from washing operations.

Parking Lot and Street Cleaning

Pollution Prevention/Good Housekeeping for Municipal Operations

Introduction: This management measure involves employing pavement cleaning practices such as street sweeping on a regular basis to minimize the amount of pollutants entering the MS4. These cleaning practices are designed to remove from road and parking lot surfaces sediment debris and other pollutants that are a potential source of pollution impacting the MS4.

Streets, roads, highways and parking lots accumulate significant amounts of pollutants that contribute to stormwater pollutant runoff to surface waters. Pollutants, including sediment, debris, trash, road salt, and trace metals can be minimized by street sweeping. Street sweeping can also improve the aesthetics of municipal roadways, control dust and decrease the accumulation of pollutants in catch basins. An effective municipal street sweeping program can meet regulatory requirements, assess street sweeping effectiveness, and minimize pollutants in roadways.

Goal: To reduce the amount of pollutants entering the MS4 from surface streets and parking lots by the use of street sweepers.

Implementation: the following guidelines should be used to implement the Parking Lot and Street Cleaning BMP:

- Maintain and upkeep all municipal street sweepers.
- Establish a schedule which will allow for the cleaning of the entire city in a reasonable timeframe.
- Properly dispose of all dirt and debris collected by the street sweeper
- Use current industry standards for street sweeping equipment and machinery.

Storm Drain System Cleaning

Pollution Prevention/Good Housekeeping for Municipal Operations

Introduction: Storm drain systems need to be cleaned regularly. Routine cleaning reduces the amount of pollutants, trash, and debris both in the storm drain system and in receiving waters. Clogged drains and storm drain inlets can cause the drains to overflow, leading to increased erosion. Benefits of cleaning include increased dissolved oxygen, reduced levels of bacteria, and support of in stream habitat. Areas with relatively flat grades or low flows should be given special attention because they rarely achieve high enough flows to flush themselves.

Goal: To reduce the amount of pollutants in the MS4

Implementation: The following guidelines should be used to implement a storm drain system cleaning BMP.

- Actively clean storm drains and pipe using industry standards.
- Create a cleaning schedule that allows for the entire network to be cleaned within an acceptable time frame.
- Properly disposed of any materials or contaminants that are removed from the MS4.

Hazardous Materials Storage

Pollution Prevention/Good Housekeeping for Municipal Operations

Introduction: Failure to properly store hazardous materials dramatically increases the probability that they will end up in local waterways. Many people have hazardous materials stored throughout their homes, especially in garages and storage sheds. Practices such as covering hazardous materials or storing them properly can have dramatic impacts.

Goal: To reduce or eliminate the amount of pollutants discharged into the MS4 through proper storage of hazardous materials. This will reduce or eliminate the chance for accidental spills of hazardous materials.

Implementation: The following guidelines should be followed in order to properly implement the Hazardous Materials Storage BMP.

- Ensuring sufficient aisle space to provide access for inspections and to improve the ease of material transport.
- Storing materials away from high-traffic areas to reduce the likelihood of accidents that might cause spills or damage to drums, bags, or containers.
- Stacking containers in accordance with the manufacturers' directions to avoid damaging the container or the product itself.
- Storing containers on pallets or equivalent structures. This facilitates inspection for leaks and prevents the containers from coming into contact with wet floors, which can cause corrosion. This consideration also reduces the incidence of damage by pests (insects, rodents, etc.).
- Delegating the responsibility for management of hazardous materials to personnel trained and experienced in hazardous substance management.

Covering hazardous materials and areas where such materials are handled reduces potential contact with stormwater and wind. Storage areas, outdoor material deposits, loading and unloading areas, and raw materials should all be covered or enclosed. Priority should be given to locations of the most hazardous materials

Residents waiting to dispose of their household hazardous materials should store them properly until their hazardous waste collection day. An example storage technique includes a plastic container with a lid (e.g., a 5-gallon bucket). The container should be filled halfway with (unused) kitty litter. Then the hazardous material, in its own, original container, can be put into the bucket. The bucket lid must be fastened and the container clearly marked. It should be stored away from children and anyone else who might ingest the hazardous material stored inside. To reduce the potential for corrosion, the container should be stored off the ground.

Spill Response and Prevention

Pollution Prevention/Good Housekeeping for Municipal Operations

Introduction: Spill response and prevention plan should clearly stat measures to stop the source of a spill, contain the spill, clean up the spill, dispose of contaminated materials, and train personnel to prevent and control future spills.

This plan is to be used where ever hazardous wastes are store or used. These wastes include pesticides, paints, cleaners, petroleum products, fertilizers, and solvents.

Goal: To reduce the amount of pollutants entering the MS4 by preventing spills and responding quickly once spills occur.

Implementation: The following guidelines should be followed to eliminate or reduce pollutants from entering the MS4 though accidental spilling of hazardous materials.

- Indentify potential spill or source areas (Loading docks, storage areas, waste disposal areas, manufacturing areas, warehouses, service stations, parking lots, etc...)
- Recycling, reclaiming, or reusing process materials, thereby reducing the amount of process materials that are brought into the facility,
- Installing leak detection devices, overflow controls
- Disconnection any drains from processing areas that lead to the storm sewer
- Performing preventative maintenance on storm tanks, valves, pumps, pipes, and other equipment
- Using materials transfer procedures or filling procedures for tanks and other equipment that will minimize spills.
- Substitute les or non toxic materials for toxic materials.
- Provide documentation of spill response equipment and procedures to be used in case that a spill occurs. Document should have clear and concise cleaning procedures for each material used by the facility. Step by step instructions should be provided for each material. This also includes safety measures to be taken with each kind of waste and instruction on how to identify appropriate authorities for hazardous or toxic wastes. These instructions can be in the form of a manual or sign.

David Boyd

Subject: Data Scrubbing Effort - 25th Street, Gretna FMA FY18-14

Start: Fri 5/27/2022 10:00 AM
End: Fri 5/27/2022 11:00 AM

Recurrence: (none)

Meeting Status: Accepted

Organizer: Lambert, Dennis
Required Attendees: apellegrin@gretnala.com; mwesley@gretnala.com; dboyd@bkiusa.com; abdelmagid.mahgoub@fema.dhs.gov; Pratt, Steve; Morgan-Dodson, Michael; Quan, Dennis; Bartholomew, Brad; leschina.holmes@fema.dhs.gov

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This is a standing meeting until the data scrubbing, loss avoidance and BCA are complete - Dennis

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City of Kenner

1610 Reverend Richard Wilson Drive
Kenner, Louisiana 70062

MS4 Stormwater Management Plan

Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4)

June 2016

Prepared By:
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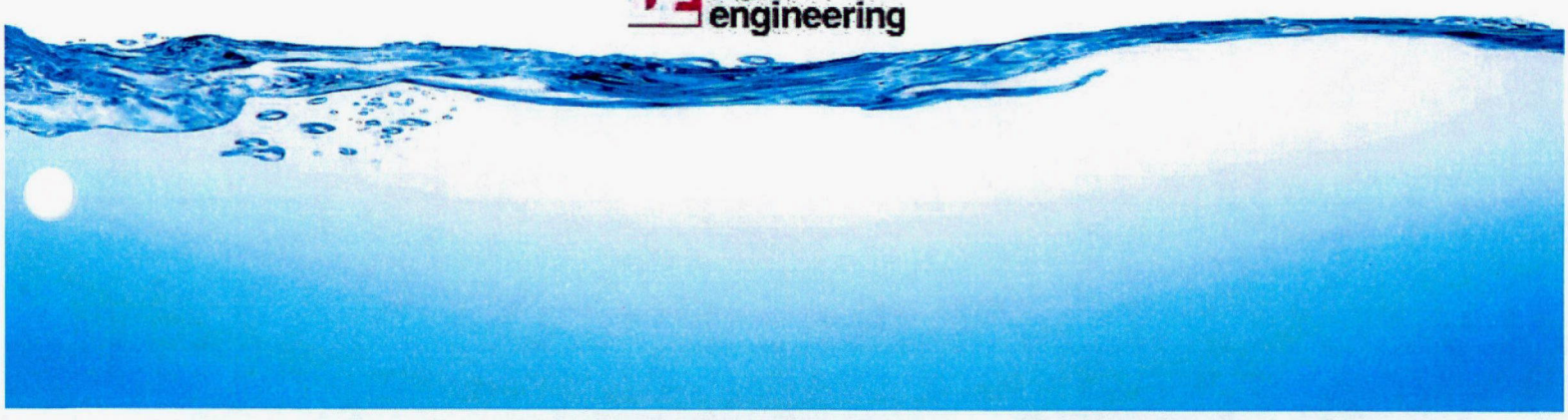

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INTRODUCTION

This Storm Water Management Program (SWMP) has been drafted to meet the requirements of the Municipal Separate Storm Sewer System (MS4) permit issued by USEPA's Region VI to Jefferson Parish and its co-permittees. The City of Kenner (City) is one of these co-permittees, as is the City of Gretna, the City of Harahan, the City of Westwego and Louisiana Department of Transportation (LDOTD). The MS4 permit has been created by the USEPA under that National Pollutant Discharge Elimination System (NPDES) to address the water quality issues associated with the storm water runoff from the drainage areas included in the MS4 permit. The SWMP is implemented in accordance with Section 402(p)(3)(B) of the Clean Water Act, and the Storm Water Regulations (40 CFR Part 122.26).

In order to provide some perspective on the unique nature of this type of permit for the City, this introduction provides a brief description of the drainage and flood control system within the City. The land in the City is at an elevation below mean sea level (MSL). The City is surrounded by flood and hurricane protection levees. Levees border to the south the Mississippi River, to the north Lake Pontchartrain, and to the west the LaBranche Wetlands in St. Charles Parish. The River levees are intended to protect against flood stage water levels in the river and the other levees are intended to protect against hurricane induced tidal surges from Lake Pontchartrain.

As a result of this system of levees, there is no gravity drainage discharge outlet in the City. Rainfall precipitation is collected by gravity into the drainage system before discharging into the canals. Approximately two-thirds of the City's storm water collected within the canals is pumped to Lake Pontchartrain by Pump Station No. 4. The remaining storm water is collected within the canals and pumped to the LaBranche wetlands in St. Charles Parish by Pump Station No. 5.

SECTION 1: STRUCTURAL CONTROLS AND STORM WATER COLLECTION SYSTEM OPERATION

1.1 Program Description

The City of Kenner has previously submitted a report on Evaluating the Feasibility of Retrofitting Existing Flood Control Devices to Improve Water Quality in May 2001 to EPA via Jefferson Parish. The report and details of the program is included in Appendix A. The City has formally adopted the program submitted.

The crews of the City of Kenner's Department of Public Works maintain the drainage system (culverts and ditches) within City limits. The City will continue to maintain the culverts and ditches within City limits for the next reporting period. The storm water collected at the City's drainage system eventually flows to the major drainage canals. Major drainage canals are maintained and operated by Jefferson Parish. Any structural control facilities within the major drainage canals are maintained and operated by Jefferson Parish.

1.2 Measurable Goals

The Department of Public Works is responsible for the following maintenance activities during each annual reporting year:

- Preventative maintenance of catch basins performed and supplemented as needed per homeowner complaint.
- Two (2) trucks used for drainage system maintenance – one (1) to clean out the system routinely for preventative maintenance and one (1) to clean out older infrastructure on a basis of complaints, or scheduled preventative maintenance.
- Inspection and Code Enforcement investigating all complaints of sewage leaks or stoppages.

SECTION 2: AREAS OF NEW DEVELOPMENT AND REDEVELOPMENT

2.1 Program Description

To ensure "Post-Construction Pollutant Controls" are developed, implemented, and enforced the City of Kenner has established criteria during the planning and design stages of a new or redeveloped project. These criteria are discussed in more detail in a report titled "Post Construction Pollutant Controls in Areas of New Development and Re-Development" which was submitted to EPA via Jefferson Parish in February 1999. The report and details of the program is included in Appendix B. The City has formally adopted the program submitted.

The City of Kenner inspects all new developments and significant redevelopments of 1 acre and greater for Municipal Separate Storm Sewer Permit Compliance. "Post-Construction Pollutant Controls" are considered to be an extension of the "Construction Site Inspection Program." One of the most important factors to reduce the amount of pollutants entering the storm water drainage system from construction projects is the development of a good pollution prevention plan. It is believed that good housekeeping practices provides the proper strategy to reduce the amount of pollutants entering the storm water drainage system from newly developed and redeveloped projects.

To prevent discharging pollutants to the municipal separate storm sewer system after construction completeness, the City reviews the proposed drainage plan and pollution control measures.

Owners of developed and redeveloped properties are responsible for preventing pollutants inside private property discharging to the municipal separate storm sewer system.

The City of Kenner recently adopted the Unified Development Code (UDC), which includes regulations that address the existing and future needs of the City and help guide development. Article IX, Landscaping Regulations, and Article X, Stormwater Management, establish codes for new and re-development that will assist in preventing pollution into the stormwater system.

Green infrastructure and low impact practices will also be implemented in areas of new development and re-development, per the Green Infrastructure and Low Impact Development program (See Section 13). Amended codes and ordinances, design guidelines and training will assist in encouraging green infrastructure and promoting stormwater pollution prevention.

2.2 Measurable Goals

During each annual reporting year, the Inspection and Code Enforcement Department is responsible for ensuring that each area of new development and significant redevelopment complies with the following ordinances and criteria in order to begin the use of the development:

- Planned unit development (PUD)
- Landscaping regulations
- Stormwater detention and allowable peak runoff
- Wastewater ordinance and pretreatment program
- Post-construction pollutant control enforcement

These criteria are explained in greater detail in the Guidance Document for Post-Construction Pollutant Control in Areas of New Development and Significant Redevelopment dated February 1999 and included in Appendix B.

SECTION 3: ROADWAY SYSTEM MAINTENANCE

3.1 Program Description

The City of Kenner is responsible for the design, construction, operation and maintenance of the majority of roadways within City limits. All State and Federal Highways within the City are operated and maintained by the Louisiana Department of Transportation and Development (LDOTD).

The City of Kenner Department of Public Works performs the following road/street maintenance:

- Sweeping major thoroughfares daily;
- Five (5) week rotations of street sweeping accomplished in each of the five (5) Council Districts;
- Preventive maintenance of catch basins performed and supplemented as needed per homeowner complaint;
- When maintenance from a complaint is completed the City continues with their perpetual maintenance; and
- Inspection and code enforcement investigating all complaints of sewage leaks or stoppages.

The City prepared a roadway maintenance program report that was submitted to EPA via Jefferson Parish in October 1998. The report and details of the program is included in Appendix C. The City has formally adopted the program submitted.

3.2 Measurable Goals

The Department of Public Works is responsible for the following during each annual reporting year:

- Sweeping primary streets bi-weekly or weekly.
- Sweeping secondary streets bi-weekly to monthly.
- Five (5) week rotation of street sweeping accomplished in each of the five (5) council districts.
- Remove accumulated trash and litter or excess sediments and debris in catch basins and drop inlets.
- Maintain vegetation and grass on medians and roadside areas. Dispose of all collected debris and litter. A two (2) week rotation is maintained for green areas and is increased to three (3) times per month in the summer.

SECTION 4: FLOOD CONTROL PROJECTS

4.1 Program Description

The City of Kenner's topographical characteristics of below sea level elevations, has necessitated facilities such as protective levees, open drainage canals, and pump stations to provide positive drainage and flood protection. Levees, canal construction and modifications, and pumping station construction and modifications are to be considered flood control projects.

All existing flood control structures inside the boundaries of the City of Kenner were planned, designed, constructed, operated and maintained by either the U.S. Army Corps of Engineers or Jefferson Parish. The City of Kenner anticipates any new flood control projects to continue to be planned, designed, constructed, operated and maintained by either the U.S. Army Corps of Engineers or Jefferson Parish.

The City of Kenner prepared a report titled: "Assessment of Water Quality Impacts from New Flood Control Projects" and submitted to EPA via Jefferson Parish in February 1999. The report and details is included in Appendix D. The City has formally adopted the program submitted.

4.2 Measurable Goals

The City of Kenner does not have any measurable goals for Flood Control Projects, as they are handled by Jefferson Parish.

SECTION 5: PESTICIDE, HERBICIDE AND FERTILIZER APPLICATION

5.1 Program Description

The City of Kenner Department of Public Works maintains recreational parks and playgrounds in the City of Kenner. Public Works also cuts grass and picks up litter at green areas located on medians and along City maintained roadsides.

The City has developed a program outlined in a report titled "Pesticide, Herbicide, and Fertilizer Program" submitted to EPA via Jefferson Parish in October 1998. The report and details of the program is included in Appendix E. The City has formally adopted the program submitted.

5.2 Measurable Goals

The Inspection and Code Enforcement Department is responsible for the following activities during each annual reporting year:

- Conduct inspections on commercial applicators and Department of Public Works personnel treating roadsides, rights-of-way and city drainage ditches where spraying activity takes place.
- Herbicide application on unwanted vegetation, as necessary, and at the discretion of the City of Kenner.
- Airborne pesticides sprayed for insect control and rodenticides on roads adjacent to ditches during summer months.
- Contractor applications must be certified in accordance with Louisiana Department of Agriculture and Forestry Regulations.

SECTION 6: ILLICIT DISCHARGES AND IMPROPER DISPOSAL

6.1 Identification of Allowable Non-Storm Water Discharges

The City of Kenner prepared a report titled "Allowable Non-Storm Water Discharges" that was originally submitted to EPA via Jefferson Parish in October 1998. This report includes a list of the categories of non-storm water that are not prohibited from being discharged into the MS4. The City has formally adopted the program submitted.

As part of this SWMP the list of allowable non-storm water discharges has been reviewed and included in Appendix F.

6.2 Sanitary Sewer Issues

6.2.1 Prevention of Dry and Wet Weather Overflows

Veolia Water North America, which operates the City of Kenner's WWTPs and maintains the sewage collection system under a 20-year contract, has prepared and implemented a Collection System Preventative Maintenance Plan (CSPMP). The CSPMP is designed to prevent dry weather overflows by identifying each individual chronic overflow site. Each of these sites is investigated and a corrective action plan is prepared. The CSPMP also identifies geographic areas that have large numbers of dry weather overflows. As these specific problems are identified, a corrective action plan is developed and implemented.

The City of Kenner is currently in the process of implementing the sewer overflow prevention plan in response to the consolidated compliance order (Enforcement Tracking No. WE-CN-09-0174) issued by the Louisiana Department of Environmental Quality (LDEQ). In the compliance document, LDEQ has identified a number of instances of overflows which has been recorded between 2007-2009 from the city's sewer collection system consisting of the various manholes and wastewater treatment plant (WWTP). The overflows which have been caused during wet and dry weather have occurred due to a combination of factors such as pump failures, power interruptions, lack of force main/ lift station capacities, and inclement weather conditions.

The City obtained a LDEQ state revolving fund (SRF) loan, Community Development Block Grants, and a municipal bond which is primarily funding the various projects dealing with lift station/ force main improvements and procurement of emergency generators to run the critical lift stations during power interruption.

The city is currently constructing improvements at the WWTP. These improvements will increase the WWTP effluent pump station capacity and allow the WWTP to handle wet weather flow which has repeatedly caused overflow issues at the WWTP.

As part of its regular operations and maintenance (O&M) program, the city is continuing with smoke testing, CCTV recording, manhole inspections and associated point repairs, gravity line washing based on various inspection results in order to reduce infiltration and inflow (I&I) and overflow issues.

6.2.2 Program for Responding to and Eliminating Unforeseen Overflows

The procedures for responding to and eliminating unforeseen overflows in the Kenner collection system were developed and implemented under Veolia's Collection System Preventative Maintenance Plan.

6.2.3 Ongoing Seepage Prevention

Veolia, under a contract with the City, provides sewer collection system maintenance. This includes televising sewer lines, repairing manholes, making point repairs, and maintaining the operation of lift stations. Veolia turns in a monthly report to the City of Kenner regarding the work completed in each month. Copies of all reports are on file at the City of Kenner Department of Public Works.

6.3 Implementation of a Program to Reduce Floatables

A scheduled garbage collection and disposal program reduces floatable material. Litter on the street and in the servitudes is picked up together with mowed grass, and trucked to a landfill operated by the Waste Management Co. The City of Kenner Ordinance for littering carries a maximum fine of $200 and up to 30 days in jail based on the discretion of the court.

6.4 Used Motor Vehicle Fluid and Household Hazardous Waste Collection

A maintenance barn (Central Vehicle Maintenance) for the Department of Public Works maintains all of the City of Kenner's public vehicles. Used motor oil from oil changes is collected and recycled by the National Oil Service Company free of charge once a month.

The City of Kenner submitted a Household Hazardous Waste Program to EPA in February 2003. The program addresses proper disposal of used motor vehicle fluid and household hazardous wastes. The report and details of the program is included in Appendix G. The certification of program implementation was submitted in June 2003.

6.5 Illicit Discharge and Improper Disposal Location

Kenner is part of the Jefferson Parish Storm Sewer System. The system is distinguished by hundreds of miles of open canals in which most problems are easily seen. If something unusual (i.e. foam, color) is seen in a canal, it is reported to the City of Kenner Department of Public Works by the public or City personnel, and investigated immediately in an attempt to locate the source and correct the problem. This system of responding to citizen and employee notifications of potential problems in the storm drainage system is very effective in illicit discharge and improper disposal location.

6.6 Illicit Discharge and Improper Disposal Elimination

The City of Kenner conducts screening of the municipal separate storm sewer system during dry weather to look for evidence of potential dry weather pollution such as foam, turbidity, floatables, deposits or stains, sediment accumulation, unusual color, or the absence or abundance of vegetation at drainage outfalls or drainage canals and ditches. These inspections are used to identify potential sources of pollutants. This program is explained in more detail in a report titled "Illicit Discharge

Inspection Program" that was submitted to EPA via Jefferson Parish in February 1999. The report and details of the program is included in Appendix H. The City has formally adopted the program submitted.

6.7 Maintenance of a List of Dischargers to the MS4 which have NPDES Permits

The City of Kenner has a list of discharge facilities which are required to have a pre-treatment permit discharging into the City's wastewater treatment plants. The pre-treatment facilities located inside the City limits are also on the City's Industrial and High Risk Facilities Inspection List. Each of these sites will be inspected under the Industrial and High Risk Inspection Program during the permitting period to ensure they are not discharging into the Municipal Separate Storm Sewer System.

6.8 Measurable Goals

The Department of Public Works is responsible for the following activities during each annual reporting year:

- Conduct windshield screening during dry weather to identify evidence of dry weather pollution for all open drainage canals once per every five (5) years.
- Conduct windshield screening during wet weather to identify evidence of wet weather pollution in open drainage canals.
- Complete illicit discharge inspection checklist for each screening.
- Investigate and eliminate any illicit discharge or improper disposal discovered.
- Conduct windshield screening to investigate any public complaints of illicit discharge or improper disposal.

SECTION 7: SPILL PREVENTION AND RESPONSE

7.1 Program Description

The purpose of this program is to prevent, contain and respond to spills that may discharge into the MS4. The spill prevention and response program is under the City of Kenner's Emergency Response Plan. A crew from the emergency response team is dispatched under the Emergency Response Plan. The Fire Department is the lead agency for the clean-up of spills, the hiring of contractors, and the billing of the responsible party for the cost. The 911 Hazardous Materials (HazMat) unit controls fuel or flammable material spills. The Department of Public Works provides containment material to control the spill.

7.2 Measurable Goals

The Department of Public Works is responsible for the following activities during each annual reporting year:

- Store chemicals in the manufacturers required containers in a clean, dry storage space.
- Respond to spills with the Fire Department as the lead agency responsible for cleanup of spills, hiring of contractors for cleanup and billing the responsible party.
- Department of Public Works provides containment material to control spill.

The 911 Hazardous Materials Unit is responsible for the following activities during each annual reporting year:

- Respond to spills containing fuel or flammable material spills.

SECTION 8: INDUSTRIAL AND HIGH RISK RUNOFF

8.1 Purpose

The City of Kenner developed the Industrial and High Risk Facility Monitoring and Inspection Programs in August 1999 and has formally adopted the program submitted to the EPA.

The City is continuing ongoing inspections of Industrial and High Risk Facilities. The City has recently updated their list of industrial and high risk facilities using the following databases:

- List of Toxic Release Inventory (TRI) facilities. The list of facilities was provided by the Louisiana Environmental Protection Agency for the reporting year 2014 (the most current available at the time).
- The Louisiana Environmental Protection Agency database provided information for facilities with the following permits:
    1. Storm Water General
    2. Hazardous Wastes
    3. Solid Waste
    4. Biosolids
- Database of Businesses in Jefferson Parish maintained by the Jefferson Economic Development Commission *(There were no businesses located in Kenner on this list.)*

The updated list is included within Appendix I. Copies of all inspection reports completed to date are on file at the City of Kenner Department of Code Enforcement.

8.2 Measurable Goals

The Inspection and Code Enforcement Department is responsible for the following activities during each annual reporting year:

- Inspect all industries on the industrial and high risk inspection program list once per every five (5) years.
- Maintain updated industrial and high risk inspection list yearly by adding new businesses or removing closed businesses.
- Document any violations observed during inspection.
- Request correction on any violations observed during inspection.
- Report industries that do not comply with requested correction to the LDEQ Enforcement Division.

SECTION 9: CONSTRUCTION SITE RUNOFF

9.1 Program Description

A Construction Site Inspection Program developed by the City of Kenner was submitted to EPA via Jefferson Parish in October 1998. Originally the program monitored construction sites of 5 acres or greater. Since the implementation of Phase II, Kenner inspects construction sites of 1 acre or greater. This program includes requiring contractors to develop a storm water pollution prevention plan and send in notices of intent and notices of termination to LDEQ. A more detailed explanation of the program is included in the report submitted October 1998. The report and details of the program is included in Appendix J.

The City of Kenner recently adopted the Unified Development Code (UDC). Article X, Stormwater Management, of the UDC requires that a stormwater management plan be prepared for a site of 7,000 square feet or more of impervious surface or for a site one acre or greater in size. The plan shall include temporary best management practices (BMPs) to be used during construction and how they will be maintained by the contractor. The plan must be approved before a building permit can be issued.

9.2 Measurable Goals

The Inspection and Code Enforcement Department is responsible for the following activities during each annual reporting year:

- Require contractors to implement Best Management Practices (BMPs) on their construction site.
- Inspect all construction sites that are 1 acre or greater at the beginning of construction for BMPs.
- Require contractors to submit Notices of Intent and Notices of Termination to LDEQ.
- Require contractors to develop a stormwater pollution prevention plan.

SECTION 10: PUBLIC EDUCATION

10.1 Nonpoint Source Pollution and Solutions Poster/Essay Contest

The City of Kenner participates in a "Student Essay and Poster Contest" during each year for students in Jefferson Parish. The contest is held during the school year and award presentations are in April. The contest educates students and parents about storm water pollution prevention.

10.2 Educational Programs

In addition, the City of Kenner participates in the educational programs submitted in the Household Hazardous Waste Program submitted to EPA in February, 2003. This program includes an educational storm drain marker program wherein volunteers (scouts, civic organizations, schools, etc.) apply polyurethane markers to storm drain inlets and catch basins that warn citizens to "No Dumping Flows to Lake Pontchartrain". The markers warn of a potential fine of up to $5,000 and include the telephone number of the Jefferson Parish Department of Environmental Affairs to report any suspicious activities. This program reminds citizens that it is illegal to dispose of any materials in the storm sewer system, including HHW, grass clippings, leaves, pet waste, etc.

10.3 Residential Reuse, Recycle, and Disposal Guide

The Jefferson Parish Department of Environmental Affairs also periodically publishes and distributes a *Residential Reuse, Recycle, and Disposal Guide* that advises residents on the proper use and disposal of HHW and provides a listing of outlets for the proper disposal, reuse, and recycling of HHW and other household recyclables. These guides are available to all residents of Jefferson Parish, including municipalities such as the City of Kenner.

10.4 Measurable Goals

The Inspection and Code Enforcement Department and the Department of Public Works is responsible for the following activities during each annual reporting year:

- Participate every year in the Student Essay and Poster Contest for students in Jefferson Parish to educate parent and children on stormwater pollution prevention.
- Participate every year in the educational storm drain marker program.

SECTION 11: REPRESENTATIVE MONITORING PROGRAM

11.1 Program Description

The City of Kenner performs inspections for Dry and Wet Weather Screenings, Illicit Discharges, Construction Site Runoff, and Industrial and High Risk inspections. Copies of these inspections are available on file at the City of Kenner Department of Public Works and Department of Code Enforcement. Copies of the forms used for these inspections are included in Appendix K. The City will continue these inspections during the renewed five years permitting period.

11.2 Measurable Goals

The Inspection and Code Enforcement Department and the Department of Public Works are responsible for the following activities during each annual reporting year:

- Continue implementation of Dry Weather Screening, Wet Weather Screening, Illicit Discharge inspections, I&HR inspections, and construction site inspections.

SECTION 12: POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

12.1 Program Description

The City of Kenner has developed an education program for employees. A Training manual is given to all employees when they are hired to educate them on the subject of pollution prevention/ good housekeeping. Employees must read the manual and sign a form indicating they will adhere to the pollution prevention/good housekeeping stipulations within the manual. The report and details of the program is included in Appendix K.

12.2 Measurable Goals

The Department of Public Works is responsible for the following activities during each annual reporting year:

- Provide a Pollution Prevention/Good Housekeeping manual for municipal employees involved in activities with the potential to pollute the storm sewer to educate them on pollution prevention.
- Require all new employees for Public Works, Code Enforcement and the Fire Department to read and sign that they understand and will adhere to the pollution prevention/good housekeeping stipulations in the manual.
- Provide training every five (5) years that covers the length of each permit period.
- Maintain Stormwater Pollution Prevention Plans (SWPPP) for municipal facilities, as applicable. (Veolia, under contract with the City, currently maintains SWPPPs at the WWTF and other facilities.)

SECTION 13: GREEN INFRASTRUCTURE/LOW IMPACT DEVELOPMENT

13.1 Program Description

The goal of the Green Infrastructure/Low Impact Development program is to promote development that utilizes sustainable stormwater management. The program will help avoid water quality degradation and reduce flooding potential caused by increased stormwater runoff rates. Ultimately, the water quality will be increased in the receiving waters of the MS4.

The City of Kenner will complete a thorough review of the existing codes and ordinances, assessing the requirements for landscaping and buffering and for enforcement of zoning regulations. The Unified Development Code, the City of Kenner Code of Ordinances and the Pattern for Progress Comprehensive Plan will be reviewed. Audit tools, such as the Center for Wastershed Protection's Better Site Design Codes and Ordinances Worksheet and the EPA's Water Quality Scorecard, will assist in identifying provisions that do not support the green infrastructure and low impact development practices. These provisions will be amended as necessary to integrate the principles of green infrastructure and provide the flexibility that will facilitate green infrastructure and low impact approaches to development.

Design guidelines will be prepared to assist developers in implementing green infrastructure into their design. Changes to the codes and ordinances will be highlighted and examples of green infrastructure and low impact practices will be included. The guidelines will be provided to developers and/or persons requesting a building permit so they can be considered early in the design process. They will also be provided to Jefferson Parish departments for use in any of their upcoming projects.

Training will be provided to City of Kenner personnel to explain the importance of green infrastructure and low impact approaches on stormwater pollution prevention. Amended ordinances will be reviewed and examples will be provided of how green infrastructure and low impact practices can be integrated into new development and re-development projects. This training will provide the City of Kenner with the tools needed to implement the green infrastructure and low impact development program.

13.2 Measurable Goals

The Planning Department and the Inspection and Code Enforcement Department are responsible for the following activities during the 5-year permit term:

- Complete study of current codes and amend as required to remove impediments to, and encourage, green infrastructure and low impact development.
- Compile a packet with Green Infrastructure/Low Impact Development Design guidelines to provide to developers.
- Provide training to City of Kenner personnel on Green Infrastructure/Low Impact Development program.
- Encourage integrated, low-impact stormwater management design that uses green infrastructure through the subdivision plat or site plan review process.

APPENDIX A

A REPORT

on

"EVALUATING THE FEASIBILITY OF RETROFITTING EXISTING FLOOD CONTROL DEVICES TO IMPROVE WATER QUALITY"

CITY OF KENNER
MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT
LAS000201

Submitted to

THE ENVIRONMENTAL PROTECTION AGENCY
REGION VI

Prepared by

THE CITY OF KENNER
1905 24th Street, Kenner, LA 70062

May 2001

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Section 1
Background and Introduction

This report was developed to meet the requirements of Part II.A.4 of the City of Kenner's (City) Municipal Separate Storm Sewer System (MS4) permit issued by the United States Environmental Protection Agency (USEPA) Region VI. This permit has been created by the USEPA under the National Pollutant Discharge Elimination System (NPDES) to address the water quality issues associated with the storm water runoff from the drainage areas included in the MS4 permit. The requirement for this report is stated in the MS4 permit, Table III.A, described as follows:

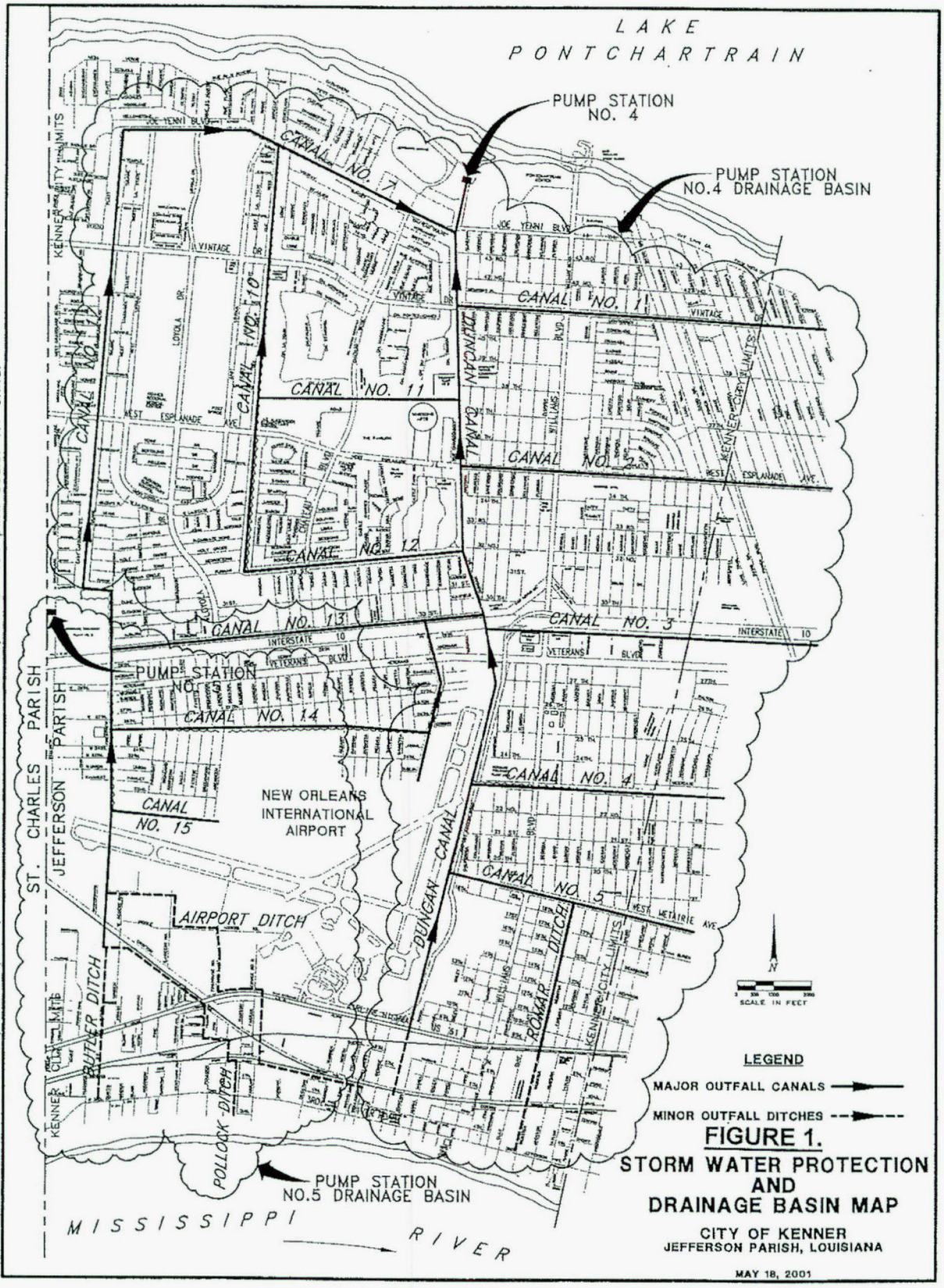
> "Submit summary report of evaluations conducted for existing flood control devices to determine the feasibility of retrofitting to benefit water quality."

The City is bound to the north by Lake Pontchartrain, to the west by St. Charles Parish, and to the south by the Mississippi River (River). Because the land in the City is at an elevation below mean sea level (MSL), the entire City (except area east of the City, adjacent to the Jefferson Parish territory) is surrounded by flood and hurricane protection levees.

The levees bordering the River are at an approximate elevation of 28 feet above MSL, and the levees bordering Lake Pontchartrain and St. Charles Parish average about 16 feet above MSL. The difference in levee elevations is due to the separate nature of the threats against which they protect. The River levees are intended to protect against flood stage water levels in the river, while the other levees are intended to protect against hurricane induced tidal surges from Lake Pontchartrain.

Rainfalls precipitated in the City are collected by gravity into the drainage system before discharged into canals. Approximately two-thirds of the City's storm water collected within the canals is pumped to Lake Pontchartrain via Pump Station No. 4. The remainder of the storm water collected within the canals is pumped to a swamp in St. Charles Parish via Pump Station No. 5. The City's flood protection structure and drainage basin map is presented in Figure 1. The drainage canal and pump stations within the City limits are maintained and operated by Jefferson Parish (Parish) staff members.

More than 90 percent of the City has been developed. Unless any major changes are made to the City's zoning and land application usage, the City has no intention to develop any major flood control projects in the future. The Parish, due to their control of the canal system and pump stations, will construct any ongoing or new flood control projects. The flood control projects will be reviewed extensively by the Parish, and State and Federal Departments for water quality impacts. While the primary objective of the MS4 system is to provide drainage and flood relief, the Parish has undertaken projects (described later) and policies (described in the MS4 Guidance Documents) that are intended to improve the quality of water discharged from the MS4 system.



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Section 2
Definitions

The requirements of this report as established by the USEPA and stated in the MS4 permit need to be evaluated by its component sections. These component sections are as follows:

- *"existing flood control devices"*
- *"retrofitting"*
- *"feasibility"*

EXISTING FLOOD CONTROL DEVICES

For the purposes of this feasibility report, existing flood control devices are defined as the main drainage transmission conduits, open or closed, and the associated drainage pumping stations. These devices may affect the receiving waters of the MS4 and therefore should be assessed for potential retrofit in order to benefit water quality. The levee system surrounding the City serves as flood control from potential storm surges from Lake Pontchartrain and the Mississippi River. The levee system has no direct impact on the quality of storm water and is, therefore, not assessed for potential retrofit.

RETROFITTING

Retrofitting is defined as the changes made to the existing flood control devices within the City boundaries. The potential retrofits discussed in this report are evaluated to determine if the impacts on storm water quality are beneficial or if they do not merit further study. Potential retrofits to the existing flood control devices to benefit storm water quality include disinfection, detention, biofiltration, infiltration, filtration, and hydrodynamic devices.

FEASIBILITY

Each potential retrofit was evaluated for feasibility of installation within the City, based on the following criteria. The feasibility of each retrofit included the benefit on storm water quality, the potential to be located in the City, the economic feasibility, and operational requirements. The feasibility also addresses whether the retrofits would impede flood waters. Feasible retrofits would require further study prior to installation or implementation, and retrofits that are not feasible do not merit further study.

Section 3
Existing Flood Control Devices

Past and proposed future flood control projects performed in the City were reviewed to determine the types of projects that have occurred in the past and are expected to occur in the future. This section reviews current and potential flood control projects and the water quality considerations performed by Jefferson Parish that implement these projects.

HISTORICAL AND ANTICIPATED FUTURE PROJECTS

Flood control projects have been constructed in the City since before the City was formed. The original settlers dug canals to improve drainage and make new lands available for development. This process accelerated greatly in recent times with the construction of a system of encircling levees, transmission canals, and pumping stations. The construction of these systems allowed the land in these areas to develop into the population density which it currently supports.

In accordance with an agreement between the Parish and the City, the Parish routinely undertakes projects to improve the hydraulic transmission capacity of the canal system or the discharge capacity of the pumping stations and if necessary constructs new pumping stations in the City. Because of the current degree of completeness of the system, most new (future) projects are focusing on increasing canal capacity and pump station discharge. No additional pumping stations are expected in the near future.

Coastal Zone Management

The Louisiana Department of Natural Resources approves construction projects through permitting and implementing projects that create, protect, and restore Louisiana's wetlands through its Office of Coastal Restoration and Management (ORCM). Most coastal restoration projects are funded through the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA). These Coastal Zone Management projects are evaluated, budgeted and approved through a joint effort of the U.S. Army Corps of Engineers (Corps), the U.S. Environmental Protection Agency, the Natural Resources Conservation Service, the National Marine Fisheries, the U.S. Fish and Wildlife Service, and the State of Louisiana.

The SELA Program

Currently, most flood control projects within the City are implemented by Jefferson Parish under the Southeast Louisiana Urban Flood Control Program, commonly referred to as SELA. This program was established as a cooperative agreement project between the Parish governments and the Corps. This program includes canal widening, canal lining, pumping station capacity increasing.

The SELA project was reviewed by the Corps for environmental impact at the reconnaissance stage, as described in the Reconnaissance Study entitled *Jefferson and Orleans Parishes, Louisiana Urban Flood Control and Water Quality Management Reconnaissance Study*, July 1992, (Reconnaissance Study). When the project was funded by Congress for implementation, the Corps and other related agencies involved in the Coastal Zone Management process reviewed the projects, and subsequently issued permits for construction. This review process included extensive evaluations of the current water quality and ecosystem diversity, and assessments of the effects of the proposed projects. This review process also specifically included certification that construction of the project and its future operation will not violate the statutory water quality standards of the state for the receiving waters.

Projects Performed by Jefferson Parish

The most recent flood control projects undertaken solely by the Parish began in 1991 with a 53 million-dollar bond issue. These projects included pumping station upgrades and construction. Projects affecting the City that were funded under this bond issue are completed and in service at this time. The Departments of Drainage, Drainage Pump Stations, and Engineering all perform drainage or flood control work within Jefferson Parish's Department of Public Works. In addition, the Department of Capital Projects and the SELA program office at the Parish also work on flood control projects. Each of these Departments perform different functions within the overall scheme of improving, operating, and maintaining the MS4 system.

Projects Performed by the East Jefferson Levee District

The East Jefferson Levee District (EJLD or District, collectively) operates as an autonomous agency created by the Legislature of the State of Louisiana. The District was created for the sole purpose of improving, operating and maintaining the levee systems which encircle the City and Jefferson Parish MS4 service area. The funding for the Districts is derived from local Ad-Valorem taxes. These revenues are used as the local matching portion in a cooperative agreement with the Corps.

The East Bank is virtually built out with development and there are no other areas that can reasonably be leveed. Therefore, the EJLD focuses on projects that maintain and improve the status of the existing levees.

The EJLD has constructed a retention dike approximately 14 to 18 inches high at the toe of the levee along Lake Pontchartrain. The retention dike extends along the levee in Jefferson Parish from the St. Charles Parish line to the Orleans Parish line. The retention dike serves to retain storm water that is accumulated as runoff directly from the sloped levee. The EJLD constructed the dike to prevent flooding of residences immediately adjacent to the Lake levee. The retention dike allows storm water to filter into the ground, which is eventually drained and pumped into Lake Pontchartrain.

All of the work undertaken by the levee district is coordinated through the Corps. The design of projects, whether directly by the Corps or by consultants, is all submitted to the Corps for permitting and environmental review.

Projects Performed by the LDOTD within the City of Kenner

The Louisiana Department of Transportation and Development (LDOTD), a copermittee to the MS4 permit, improves and maintains the numerous state highways within the City. The LDOTD does not develop or pursue projects that would be considered flood control in the context of this report. Although local drainage is an issue with every LDOTD project, it is the LDOTD's policy that state highways not be used for interbasin drainage. This means that their policy does not allow for the conveyance of storm water parallel to highways, within the rights of way. In this way the LDOTD effectively stays out of local flood control issues. The LDOTD does, of course, accommodate the drainage that must cross its rights of way, and participates in the review and permitting of these crossings. In summary, the LDOTD assists in permitting the physical infrastructure needed to accommodate drainage flows, but does not define the needs for flood control or assess water quality impacts from drainage crossings. All LDOTD projects would be subject to the same permitting process as City or Corps projects. Additionally, the LDOTD often prepares a "Solicitation of Views" that is sent to the appropriate agencies, including the City, during the conceptual design phase of a project requesting feedback on the proposed project.

Projects Performed by the City of Kenner

The City maintains the local drainage system that discharges to the Parish's canals. In past years, the City did not perform any flood control projects directly. Even though the City maintains some portions of its drainage systems, this is predominantly work that does not meet the definition of flood control. The City relies upon the Parish to provide flood control via the canal and pumping station system.

However, the City did and will continue to work on non-retrofit efforts to improve storm water quality which includes cleaning drainage system components, preventing non-storm water discharges to the drainage system, public education on storm water quality, and establishing proper ordinances to slow the peak runoff rate.

Section 4
Potential Retrofit Feasibility Assessment

Potential retrofits for improving storm water quality, or pollutant controls, typically occur within six general categories: 1) chemical addition, 2) detention, 3) biofiltration, 4) infiltration, 5) filtration, and 6) hydrodynamic devices. An effective system of pollutant controls addresses point as well as non-point or scattered sources of pollutants throughout the drainage area that cannot be effectively controlled at the source.

Among the above six storm water pollutant control categories, only hydrodynamic devices may be more practically and economically feasible to retrofit the City's drainage system so as to minimize the negative water quality impacts to the canals and pump stations. Since the City conducts the wet weather inspection on all drainage canals within the City as required by the City's MS4 permit, unless suspicious pollutants are found, these devices may not be required.

Hydrodynamic devices use the flow of water to assist with physical separation of pollutants. Hydrodynamic designs include screens and catch basin inserts of several varieties. Some of these are actual inserts, i.e. filter cartridges, while others are replacement structures. Most contain some sort of treatment mechanism associated with sedimentation, filtration, or gravitational separation of oil and water.

One example of a physical control that may be installed beneath the pavement in lieu of a catch basin or manhole is the Stormceptor™. This device is designed to enhance removal of sediments and oil. The Stormceptor™ is divided into a lower storage/separation chamber and the upper bypass chamber. Normal flows are diverted into the lower treatment chamber where oil and other light non-aqueous phase liquids rise and become trapped. Suspended solids settle to the bottom of the chamber by gravity and centrifugal forces. During high flow conditions, the bypass chamber conveys water to the down stream storm sewer, directly circumventing the lower chamber. This prevents the resuspension and scour of settled pollutants.

Another device that is designed to capture settleable solids, floatables, oils, and grease from storm water runoff is the Downstream Defender™. This device introduces raw water into the side of the vessel, where it spirals down the perimeter, allowing heavier particles to settle out by gravity and by the drag forces on the wall and base of the chamber. Solids are directed towards the base of the vessel, where they are stored in the collection facility. The flow rotates about the vertical axis, and by the time it reaches the top of the vessel, it is virtually free of solids and is discharged through the outlet pipe.

The BaySaver® Separation System relies on gravity flow and density differences to remove free oils, suspended sediments, and floating debris from storm water runoff, retaining the collected pollutants in storage structures. It consists of two precast manholes and a high-density polyethylene separation unit. The two manholes allow the removal and storage of pollutants, while the separator unit directs the flow of water. The

primary manhole sits in-line with the storm drain and collects coarse sediments, while the storage manhole is off-line and receives only limited flows, allowing for the removal of fine sediments, free oils, and floating debris. The separation unit in between the manholes directs flow to the storage manhole during low flow conditions, splits the direction during moderate flows, or acts as a bypass during extreme flows.

Screens may be used to retain solids and floatables so that the water that passes through them is free of recognizable solids. For example, the Hycor® ROMAG screen by Waterlink® is a fine bar screen designed for storm sewer outfalls. The screen fits directly into the storm water channel or retention basin and forms a protective barrier to prevent solids from getting into lakes, streams, and on shorelines. It is self-activating, self-cleaning, and is designed to accommodate remote, unattended locations.

Another type of in-line storm-water filtration device consists of a chamber that is configured to use the water's energy to create a vortex. These devices, such as the Reg-U-Flo Vortex Valve and the Storm King®, are capable of removing floatables as well as inducing sedimentation. These separators have up to six times the treatment rate of conventional separators.

Hydrodynamic devices are ideal for use in high traffic parking lots, industrial maintenance facilities, gas and service stations, highway storm water runoff, and pretreatment for subsequent BMPs.

Most of these devices should also have a secondary or high outlet through which water exceeding the treatment capacity can escape. Maintenance includes cleaning the chambers to remove the collected solids. The frequency of maintenance is highly dependent on the drainage areas, street cleaning practices, and frequency of storm events. These devices typically range in price from $5,000 to $35,000, depending on the flow through the unit.

Section 5
Conclusions

The City maintains the local drainage system that discharges to the Parish's canals. In the past years, the City did not construct any flood control projects directly. Even though the City maintains some portions of its drainage systems, this is predominantly work that does not meet the definition of flood control. The City relies upon the Parish to provide flood control via the canal and pumping station system.

Only hydrodynamic devices may be more practically and economically feasible to retrofit the City's drainage system so as to minimize the negative water quality impacts to the canals and pump stations. Since the City conducts the wet weather inspection on all drainage canals within the City as required by the City's MS4 permit, unless suspicious pollutants are found, these devices may not be required.

However, the City did and will continue to work on non-retrofit efforts to improve storm water quality which includes cleaning drainage system components, preventing non-storm water discharges to the drainage system, public education on storm water quality, and establishing proper ordinances to slow the peak runoff rate.

APPENDIX B

GUIDANCE DOCUMENT
(TECHNICAL CRITERIA)
FOR
POST-CONSTRUCTION POLLUTANT CONTROLS IN AREAS OF NEW DEVELOPMENT AND REDEVELOPMENT

CITY OF KENNER
MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT
LAS000201

Submitted to

THE ENVIRONMENTAL PROTECTION AGENCY
REGION VI

Prepared by

THE CITY OF KENNER

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SECTION 1
INTRODUCTION

A "Guidance Document (Technical Criteria) for Post-Construction Pollutant Controls in Areas of New Development and Redevelopment" has been prepared in accordance with the National Pollutant Discharge Elimination System (NPDES) Permit requirements. This Guidance Document summarizes City of Kenner's policies and procedures to control the discharge of post-construction pollutants in areas of new development and redevelopment to waters of the United States. This section provides background information on the regulatory aspects of controlling storm water pollution as well as general requirements on the Guidance Document as determined by the final NPDES Permit issued to the City of Kenner Municipal Separate Storm Sewer System (MS4).

1.1 BACKGROUND

A final NPDES Permit, No. LAS000201, was issued to Jefferson Parish, Louisiana Department of Transportation and Development-District 02, City of Gretna, City of Harahan, City of Kenner, and City of Westwego to discharge to waters of the United States in accordance with the Storm Water Management Program (SWMP). The final NPDES Permit was issued by the United States Environmental Protection Agency (USEPA) on January 17, 1997, and became effective on March 1, 1997.

The NPDES MS4 Permit requires Jefferson Parish and the incorporated Cities of Gretna, Harahan, Kenner, and Westwego to develop, revise, and implement a comprehensive SWMP. The SWMP shall include administrative, non-structural, and structural practices to reduce the discharge of pollutants from the Municipal Separate Storm Sewer System to the Maximum Extent Practicable (MEP).

One of the requirements of the SWMP is the development and implementation of a "Guidance Document (Technical Criteria) for Post-Construction Pollutant Controls in Areas of New Development and Redevelopment" by each permittee. This document outlines City of Kenner's policies and procedures to comply with the Guidance Document portion of the NDPES permit.

1.2 PURPOSE

This Guidance Document was prepared to summarize the City of Kenner's policies and procedures to reduce the discharge of post-construction pollutants in areas of new development and redevelopment to waters of the United States.

The practices included in this program include definition and measures of post-construction pollutant controls as well as the enforcement. The associated ordinances are included in the Appendix.

1.3 CITY OF KENNER JURISDICTION

The City's Planning and Zoning Commission is responsible for reviewing the plans of any proposed developing and redeveloping projects in the City's boundary. Once the Planning and Zoning Commission approves the development plan, the developer could apply to the City's Inspection and Code Enforcement Department a construction permit.

The application document should include all necessary drawings, plans, calculations, measures, and specifications of the proposed projects. The submittals should be signed, dated, and sealed by Louisiana registered professional engineer or architect, or other professionals as required by the federal, state and the City. To prevent discharging pollutants to waters of the United States after construction completeness, the City will review the proposed drainage plan and the pollution control measures submitted by the applicant.

The City's Inspectors will check the drainage structures and other facilities during construction. A Certificate of Occupancy will be issued to the applicant if the project is built according to the approved submittals and the construction satisfies the City's ordinances.

Owners (and the homeowner's association) of developed and redeveloped properties are responsible for preventing pollutants inside the private property discharging directly and/or indirectly to waters of the United States. The City is responsible for the maintenance of drainage structure and sewer system at right-of-way and servitude dedicated to the City by developers to prevent pollutants discharging directly and/or indirectly to waters of the United States.. The City Inspectors have the power and authority to make inspection of buildings or premises and to issue citations for violations necessary to carry out the duties in the enforcement of the City's "Comprehensive Zoning Ordinance No. 2427."

SECTION 2
POST-CONSTRUCTION POLLUTANT CONTROLS

2.1 DEFINITION OF "POST-CONSTRUCTION POLLUTANT CONTROLS"

The "Post-Construction Pollutant Controls" is a comprehensive master planning process (or equivalent) to develop, implement, and enforce controls to minimize the discharge of pollutants after construction is completed. The criteria are to be used mainly during planning and design stages. The goals of such controls are:

a. New Development – limiting increases in the discharge of pollutants in storm water as a result of development, and

b. Re-development – reducing the discharge of pollutants in storm water.

2.2 MEASURES OF POST-CONSTRUCTION POLLUTANT CONTROLS

The "Post-Construction Pollutant Controls" is considered to be an extension of the "Construction Site Inspection Program." One of the most important factors to reduce the amount of pollutants entering the storm water drainage system from construction projects is the development of a good pollution prevention plan. During the development of pollution prevention plan, different alternatives available to control erosion and sediments from entering the storm water drainage system are evaluated and used.

It is believed that "good housekeeping practices" provides the proper strategy to reduce the amount of pollutants entering the storm water drainage system from the newly developed and redeveloped projects. The post-construction pollutant controls should be a maintenance measure that continues the construction pollution prevention plan.

Owners (and the homeowner's association) of developed and redeveloped properties as well as City are responsible to continue the use and maintenance of appropriate "structural and nonstructural best management practices" to reduce pollutants discharged to the Municipal Separate Storm Sewer System after construction is completed.

To ensure that the "Post-Construction Pollutant Controls" is comprehensively developed, implemented, and enforced to minimize the discharge of pollutants after construction is completed, the City of Kenner has established ordinances and criteria during the planning and design stages of a new- and/or re-development project. They are listed in the following sections.

SECTION 3
POST-CONSTRUCTION POLLUTANT CONTROLS AND ENFORCEMENT

This section provides information of ordinances and criteria that are currently implemented in the City of Kenner regarding planning and designing stages of a new- and/or re-development project. They are: 1) Planned Unit Development; 2) Landscaping Regulations; 3) Storm Water Detention and Allowable Peak Runoff; 4) Wastewater Ordinance and Pretreatment Program; and 5) Post-Construction Pollutant Control Enforcement.

3.1 PLANNED UNIT DEVELOPMENT (PUD)

The planned unit development (PUD) is to provide controlled areas where development may occur different from existing development due to various physical conditions. The development which relates to the physical conditions of the area or provides an acceptable deviation from surrounding existing development, after a submittal of a Planned Unit Development (PUD) per Section 20.08 of the City's Comprehensive Zoning Ordinance No. 2427 has been approved by the City Council. The major subparts of Section 20.08 include purpose of provisions, conditions to be met by Planned Unit developments, procedure on Planned Unit Developments, and one-year limitation. The Section 20.08 of the City's Comprehensive Zoning Ordinance No. 2427 is presented at Appendix A.

3.2 LANDSCAPING REGULATIONS

The purpose of the landscaping regulations is to provide standards for landscaping and screening with the City of Kenner. The landscaping requirements are regulated at the Section 20.11 of the City's Comprehensive Zoning Ordinance No. 2427. The implementation of these regulations will improve the general appearance of the community through the use of plant material as a unifying element. The proper use of plant material will provide a definition of space and articulate the uses of specific areas. In order to satisfy the landscaping regulations, the applicant indirectly taking the necessary measures on soil erosion and sediment controls that reduce the amount of soil particles that are carried off a land surface and deposited in receiving water.

The major subparts of Section 20.11 include purpose of the regulations, definitions, landscape plan, landscape area and requirements, plantings, and maintenance. The Section 20.11 of the City's Comprehensive Zoning Ordinance No. 2427 is presented at Appendix B.

3.3 STORM WATER DETENTION AND ALLOWABLE PEAK RUNOFF

The purpose and intent of storm water detention is to require a drainage plan to be stamped and certified by a Civil Engineer licensed by the State of Louisiana for construction of residential, commercial and industrial developments, with the goal of improving pre-development runoff and reducing post-development runoff based on a ten (10) year storm event. All residential,

commercial and industrial uses that require a building permit shall require a drainage plan with the permit application. A said plan should be forwarded to the City for review and approval before the issuance of a building permit. It is the responsibility of the developer and design engineer to create a site development plan that will complement the drainage plan utilizing site design criteria so as to result in the reduction of runoff from post-development. A combination of detention methods may be utilized to meet the criteria as established for the purpose of reducing the peak runoff. Off-site detention facilities may be utilized if approved by the City.

In order to expedite the drainage plan review for all residential, commercial and industrial developments, the City recommends the following documents be provided:

a. A vicinity map indicating the location of the proposed developing project.
b. A pre-development drainage plan (existing conditions).
c. Identify fill area(s) and the associated fill depth(s).
d. A post-development drainage plan.
e. If the outfall needs to discharge to the ditch or detention system, the invert elevation of associated influent and effluent culvert(s) and bottom elevation of accepted detention system should be provided.
f. If driveway culvert needs to be installed at the state highway ditch, written approval from the Louisiana Department of Transportation and Development should be provided prior to the City approval.
g. A hydrological analysis of both pre-development and post-development runoff should be provided. The hydrological analysis should meet applicable City requirements.
h. The City reserves the right to hold the Certification of Occupancy in order to allow for a final inspection.

3.4 WASTEWATER ORDINANCE AND PRETREATMENT PROGRAM

The purpose and intent of wastewater ordinance and pretreatment program (the City of Kenner's Ordinance 7138) is to address and satisfy all requirements of EPA. The Ordinance 7138 has been approved by EPA as of October 31, 1994. The said ordinance creates effluent limitations for users of the system, which are derived specifically to address the quality of the effluent generated by local business and industry.

The major subjects of Ordinance 7138 include four parts. They are Part I – City of Kenner Wastewater Ordinance, Part II – City of Kenner Pretreatment Program, Part III – Enforcement Response Plan, and Part IV – Appendices.

Kenner's wastewater ordinance provides for the regulations of users of the City's wastewater collection system through the issuance of permits to certain industrial users and through enforcement of general requirements for the other non-domestic users, authorizes monitoring and

enforcement activities, requires user reporting, assumes that existing customer's capacity will not be preempted, and provides for the setting of fees for the equitable distribution of costs resulting from the program established by Ordinance 7138.

The pretreatment program was designed to protect the City's wastewater treatment system, their workers and the environment from the damage that may occur when hazardous or toxic wastes are discharged into the City's wastewater collection system. This protection will be achieved by regulating non-domestic users of the wastewater collection system that discharge toxic waste or unusually strong domestic wastes into the City's collection system. Procedures to regulate non-domestic dischargers will be in compliance with Code of Federal Register (CFR) Title 40, Chapter I, Subchapter N, Part 403.

The enforcement response plan was designed to provide specific criteria by which the City's Director of Wastewater Operations can select the enforcement action appropriate to the nature of an industrial pretreatment discharge violation and provide comprehensive and consistent enforcement o the provisions of the City's Wastewater Ordinance. This plan contains an outline of the procedures to be followed to identify, document and respond to violations of the City of Kenner Wastewater Ordinance.

The Appendices include: A- Legal Authority, B- Act 658 of the Louisiana Legislative Session, C – Multijurisdictional Agreements, D – Agreement between the City of Kenner Department of Wastewater Operations and the City of Kenner Department of Inspection and Code Enforcement.

The adoption of City's Ordinance No. 7138, the table of contents of Parts I, II, and III are presented at Appendix C.

3.5 POST-CONSTRUCTION POLLUTANT CONTROL ENFORCEMENT

Beyond the review of planning and design of the post-construction pollutant control for a new- and/or re-developing project, the Director of Inspection and Code Enforcement, or his designee is responsible for administered and enforced the City's codes to reduce the pollutant discharge to the water of the United States. In case any structure is erected, or structurally altered or maintained, or any structure or land is used in violation of the City's codes, the Director of Inspection and Code Enforcement may request assistance from the Chief of Police when necessary for the enforcement of the provisions of the ordinances.

The City's codes for controlling storm water discharges and management of drainage system related to the pollutant controls after a construction project completed are listed at Table 1.

Table 1.
Ordinances for Controlling Storm Water Discharges and Management of Drainage System

Referenced Code Section	Description
Section 4-6	Clean-up and disposal of animal excreta in a sanitary manner.
Section 5-85	Storm water is not permitted to drain to adjacent properties.
Section 5-87	Dwelling units must provide garbage and rubbish containers which shall be maintained in good repair and clean condition
Section 7-43	Prohibits the intentional contamination of any private or public water supply
Section 7-68	Prohibits trash fires not protected by a proper furnace or incinerator within the municipal limits
Section 7-98	Prohibits distribution of handbills to public or private property by any means other than handling them to a person who is willing to accept such material
Section 7-110	Requires excavated dirt or soil to be wetted to prevent the creation of any unusual or excessive amount of dirt or dust particles in the air.
Section 7-112	Prohibits the discharge of refuse water, sewage, oil, grease, chemicals or objectionable matter into the ditches, gutters and drainage canals in the City (Does not apply to the outdoor washing of vehicles or pets in residential neighborhoods.)
Section 91/2-7	Prohibits growth of weeds and placement of trash within a minimum 150' radius from public streets.
Section 7-121	Prohibits litter and abandoned vehicles
Section 91/2-8	Prohibits discharge of oil, grease, petroleum, waste by-products, chemicals, or seepage into the subsurface or open drainage system or waterways of the City with provisions for enforcement.
Section 8-1	Prohibits bonfire, leaf and rubbish fires unless provisions are me
Section 91/4 to Section 91/4-25	Regulates transport and storage of hazardous materials.
Section 91/2-1	Adopts "Sanitary Code, State of Louisiana."
Section 91/2-3	Provisions for bringing property to curb grade for prevention of water accumulation.
Section 91/2-4	Solid waste containers to be water-tight. Bodies of vehicles used for collection and transportation shall be water-tight.
Section 13-50	Grassed swales with approved erosion control measures shall be constructed to drain roadways. Includes requirements for catch basins and drainage pipes
Section 14-11	Requires subdivisions to have sewer, water and drainage designed to meet the City's approval.

SECTION 4
AMENDMENT OF CITY'S COMPREHENSIVE ZONING ORDINANCE

The City Council may from time to time, amend, supplement, or change the regulations, restrictions, or boundaries currently or subsequently established in the City of Kenner as defined at Section 23.01 of the City's "Comprehensive Zoning Ordinance No. 2427."

4.1 INITIAL OF CHANGE

The amendment of ordinance may be initiated by two means:

a. By action of the City Council by introduction of an ordinance or by adoption of a motion, or,

b. On petition by property owners, by filing with the City Council through the City Planning and Zoning Commission, a petition in writing which conforms with the standards and requirements of the City Planing and Zoning Commission, provided that such petition is duly signed and acknowledged by the owners or authorized agents or not less than fifty (50) percent of the area of the land which a change of classification is required.

4.2 PROCEDURE OF CHANGE

As defined at Section 23.02 of the City's "Comprehensive Zoning Ordinance No. 2427." No amendment shall become effective until:

a. There shall have been a public hearing held in relation thereto before the City Planning and Zoning Commission, at which time interested citizens and parties shall have had an opportunity to be fully heard.

b. All requests requiring a hearing before the City Planing and Zoning Commission other than zoning charge proposals, hazardous obnoxious uses, planned unit developments and child care centers shall be recommended by the City Planning and Zoning Commission and authorized by the City Council only when said use complies with all of the following provisions:

    1. Said use is necessary to promote the public interest at that location.
    2. Said use is compatible with adjacent or nearby land uses and zoning in the area.
    3. Said use will not cause substantial injury to other property in the neighborhood in which it is to be located.
    4. Said use is designed, located and proposed to be operated so that the public health, safety and welfare will be protected.
    5. Said use had adequate ingress and egress to property and proposed structures thereon with particular attention to vehicular and pedestrian safety and convenience, traffic flow and control, and access in case of fire.

6. The foregoing standards shall not be subject to waivers or variances that could be granted under Article XXI, Board of Zoning Adjustmetns.

c. After the public hearing as provided above, the City Planning and Zoning Commission shall have submitted the report and recommendation upon the proposal or proposed change to the City Clerk. If such report is not filed with the City Clerk within thirty (30) days after the date of the public hearing, the action and report on such amendment by said Commission shall be deemed favorable.

d. A final yea and nay vote shall be taken on the proposal by the City Council within ninety (90) days from the receipt by City Council of the report and recommendation of the City Planing and Zoning Commission.

e. The provisions of this section do not apply in cases where there is a proposal to enact an entire new ordinance to change the text as a whole, or to change all the official Zoning Maps of the City, or both, in which event the procedure set out in Revised Status 33.4721-33.4730 (Act 240 of Legislature of Louisiana, 1926) shall be followed.

APPENDIX A

CITY OF KENNER'S
ORDINANCE OF PLANNED UNIT DEVELOPMENTS
(SECTION 20.08 OF COMPREHENSIVE ZONING
ORDINANCE NO. 2427)

6. Fees

The fee for processing and advertising shall be forty dollars ($40.00) for all applications to the Planning Department. Fees are due at the time of submittal and should be made out to the "City of Kenner".

SECTION 20.08 PLANNED UNIT DEVELOPMENTS (PUD)

A. Purpose of Provisions. Planned Unit Developments are of such substantially different character that specific and additional standards and exceptions are hereby set out to govern the recommendations of the Planning and Zoning Commission and the action of the City Council.

In the case of a Planned Unit Development, the Planning and Zoning Commission, after holding a Public Hearing, may recommend and the City Council may authorize that there be in part of the area of such development and for the duration of such development, specified uses not permitted by the use regulations of the district in which said development is located, provided the Planning and Zoning Commission shall find:

1. That the uses permitted by such exception are reasonable or desirable and are appropriate with respect to the private purpose of the development.

2. That the uses permitted by such exception are not as such a nature or so located as to exercise a detrimental influence on the surrounding neighborhood.

3. Providing the above conditions are met, the City Council shall have the power to grant exceptions to the following:

   a. Yard Requirements.

   b. Lot Area.

   c. Use requirements.

4. Limitations. The provisions of this section are applicable in all districts providing the lot area of the property in question has the following minimum area:

   a. In R-1, R-1A and RR-1 Districts: Ten (10) contiguous acres.

   b. All other districts except the R-1, R-1A and RR-1 Districts: Two (2) contiguous acres.

   In calculating the minimum area for a Planned Unit Development, the measurement shall not include the area of any previously dedicated streets or alleys.

5. Adult book/video stores and massage parlors are not permitted uses under the provisions of this section.

B. Conditions to be met by Planned Unit Developments.

1. District Regulations. Every building development erected and maintained under the provisions of this section shall comply with all of the regulations established by this ordinance for the district in which the building group is located except the regulation requiring a separate building site to be provided and maintained for each principal structure.

2. Site Plan and Improvements. A special plan for a building development shall show, and there shall be provided, the following:

   a. Drainage. Adequate facilities for the drainage of surface water, including storm sewers, gutters, paving and the proper design of finished grades, when requested by the Planning Director.

   b. Ingress and Egress. Adequate facilities for the same and convenient circulation of pedestrian and vehicular traffic, including walks, driveways, offstreet parking areas, offstreet loading areas, and landscaped separation spaces between pedestrian and vehicular ways.

   c. Play Area. In dwelling business developments, adequate and safely located play areas for small children.

   d. Protection of Residence District. In business building developments near or adjoining residence districts, adequate provision (including fences, walls and/or planting) to screen and protect the residence districts from parking lot illumination, headlights, fumes, heat, noise, blowing papers, and dust, and the visual encroachment of commercial activity on the privacy and neighborhood character of the residence district.

   e. A landscaping plan of the entire project must be provided showing individual plants and vegetation types.

   f. Location of all garbage, trash and/or dumpster location shall be shown and shall be properly screened from view.

   g. Formation of Incorporate Non-Profit Association (when applicable and/or when required by the City Council as part of a PUD). When the formation of an Incorporate Non-Profit Association is part of a PUD the developer shall:

      (1) Create an incorporate non-profit automatic homes association which assures exterior maintenance of each unit and the common areas.

      (2) Record covenants which automatically make every lot owner an association member, give him the right to use the common property, and establish his voting rights in the association and his obligation to pay its assessments.

(3) Variations and Exceptions. Whenever the tract to be subdivided is of such unusual size or shape or is surrounded by such development of unusual conditions that the strict application of the requirements contained in these regulations would result in real difficulties and substantial hardships or injustices, the Commission may vary or modify such requirements, so that the subdivider is allowed to develop his property in a reasonable manner, but so that, at the same time, the public welfare and interest of the City are protected and the general intent and spirit of these regulations are preserved.

C. Procedure on Planned Unit Developments:

1. Application for Approval. An application for approval of a Planned Unit Development shall be filed with the Planning Department and shall contain the following:

a. Interest and Ownership. The applicant's name, address and interest in the application, and the name, address and interest of every person, firm or corporation represented by the applicant in the application; the concurrence of the owner or owners of the entire land area included in the special plan and all encumbrancers of such land; and sufficient evidence to establish that the applicants are all the owners and encumbrancers of the designated land area, intent actually to develop the designated area, and have both the means and ability to do so.

b. Plans for Building Development. Plans showing the land area included within the special plan, with the boundaries and dimensions and present zoning classification of the area, the adjoining properties and the present zoning classification thereof, all public private easements and rights-of-way, both existing and proposed, within or bounding the designated area and the adjoining properties, the location of buildings and the use of the land on adjoining properties, necessary finished grades, curb cuts, driveway, offstreet parking areas, offstreet loading areas, walks, open areas to be set aside for special purposes, the location and height of proposed walls, fences, and screen planting, the types of paving or other surfacing to be used in the various areas, and such other site information as may be necessary to describe completely the proposed building developments.

2. Administrative Examination. Upon receipt of an acceptable application for approval of a Planned Unit Development, properly and completely made out as listed herein, the Planning Department shall examine the application and make such investigation as is necessary. Within sixty (60) days of the receipt of an application, the Planning Department shall transmit the application together with its report and recommendation to the Planning Commission. The Planning Department may also transmit a copy of the application to any

department or agency which might be affected by the approval of the application, and such department or agency may transmit its report and recommendation to the Planning Commission.

3. Compliance with State Laws. Planned Unit Developments must comply with the applicable State Laws L.R.S. 9:1121 et sec. entitled "Horizontal Property Act".

4. Review by Planning Commission. The Planning Commission shall hold a Public Hearing concerning the Planned Unit Development in accordance with the provisions of Section 23.02A and B of this ordinance and shall review each application and shall approve or disapprove the special plan; approval may establish conditions and limitations, which may include a performance bond. The Planning Commission shall then, within sixty (60) days, return the application, together with its report of approval or disapproval to the Planning Department; the Planning Department shall notify the applicant of the approval or disapproval of the PUD by the Planning Commission.

5. Presentation of Planned Unit Development to the City Council. Upon action taken by the Planning Commission, the plan shall be presented to the City Council for final action. Action by Yea or Nay vote shall be taken within ninety (90) days after being submitted to the City Council.

6. Registration of Planned Unit Development. Upon approval of a Planned Unit Development, a copy of such plan shall be registered among the records of the Planning Department and shall thereafter be binding upon the applicants, their heirs, successors, and assigns; shall limit and control, the issuance and validity of permits and certificates, and shall restrict and limit the use and operation of all land and structures within the area designated in such Planned Unit Development and approval thereof; provided, however, that the Department of Public Works may, upon a showing of engineering necessity thereof, permit minor changes in the location of structure and site improvements if such minor changes will not change the character of the development, increase the gross floor area, intensity of use, or ground coverage, reduce the total building site area, the space between buildings or the ratio of offstreet parking area and offstreet loading area to gross floor area, or gross floor area, or otherwise cause the Planned Unit Development to fail to meet the conditions specified herein.

7. Amendment or withdrawal of Planned Unit Development. Pursuant to the same procedure and subject to the same limitations and requirements by which the Planned Unit Development was approved and registered, any Planned Unit Development may be amended or withdrawn, either partially or completely, if all land and structures remaining under such Planned Unit Development comply with all the conditions and limitations of the Planned Unit Development and all land and structures withdrawn from such Planned Unit Development comply with all regulations

established by this ordinance and unrelated to the Planned Unit Development.

8. Fees. Before any action shall be taken as provided in this section, the party or parties proposing or recommending the Planned Unit Development shall deposit with the City Clerk, two hundred fifty dollars ($250.00) for all land or portion thereof included in the Planned Unit Development up to two (2) acres and an additional one hundred dollars ($100) per acre for all over two (2) acres. These fees are to cover the appropriate cost of this procedure, and under no condition shall such sum or any part thereof be refunded for failure of such Planned Unit Development to be adopted by the City Council. The maximum fee required shall not exceed five thousand dollars ($5000) for Planned Unit Developments or amendments to Planned Unit Developments to cover the approximate cost of this procedure.

   The total fee for Planned Unit Developments in R1-P zoned areas shall be one hundred dollars ($100.00)

D. One Year Limitation

Whenever a Planned Unit Development is filed with the Planning Department, and has been finally acted on by the City Council in accordance with the above outlined procedure, then the Planning Commission and the City Council shall not consider the identical Planned Unit Development, for the same property, within a period of one calendar year from the date of the City Council's final action on said planned unit development.

SECTION 20.09 GENERAL SIGN REGULATIONS

A. SIGN DEFINITIONS AND GENERAL REGULATIONS

The following are definitions and general regulations pertaining to signs. See individual zoning district requirements for specific sign regulations in said districts.

DEFINITIONS:

1. SIGN. Any structure, display, device or inscription which is located upon, attached to, or painted or represented on any land, or any building or structure, on the outside or inside of a window, or an awning, canopy, marquee, or similar appendage, and which displays or includes any numeral, letter work, model, banner, emblem, insignia, symbol, device, light, trademark, or other representation used as, or in the nature of, an announcement advertisement, attention-arrester, direction, warning or designation of any person, firm, group, organization, place, community, product service, business, profession, enterprise, or industry.

   GENERAL SIGN REGULATIONS (pertaining to all signs)

   a. Sign regulations and requirements herein not to include signs erected by a government agency in furtherance of public safety.

APPENDIX B

CITY OF KENNER'S LANDSCAPING REGULATIONS (SECTION 20.11 OF COMPREHENSIVE ZONING ORDINANCE NO. 2427)

SECTION 20.11 LANDSCAPING REGULATIONS

A. PURPOSE OF THE REGULATIONS

The purpose of these regulations is to provide standards for landscaping and screening within the City of Kenner. The implementation of these regulations will improve the general appearance of the community through the use of plant material as a unifying element. The proper use of plant material will provide a definition of space and articulate the uses of specific areas.

B. DEFINITIONS

1. Berm - that portion of the right-of-way between the curb line and the adjoining property line, in which shall be placed public improvements including landscaping, sidewalks and bike paths.

2. Developer - that person, persons or firm which is improving a parcel of land within the City who may or may not be the owner of said property.

3. Landscaping - any combination of living plants such as trees, shrubs, vines, ground covers, flowers or lawns; and may include natural features such as rock, stone and bark; and structural features, including but not limited to fountains, reflecting pools, art works, screen walls, fences and benches.

4. Median - the land in the center of the right-of-way which is used to separate the directional flow of traffic, and may contain left turn pockets.

5. Multi-family - for the purpose of these landscaping regulations only, multi-family shall include all property zoned R-3 as well as all developments with five or more units per building.

6. Right-of-way - public easement containing roadways, medians and berms.

C. LANDSCAPE PLAN

A landscape plan is required for all multi-family, commercial (C-1 and C-2), office (G-O) and industrial (S-I, L-I and H-I) development, renovations, additions or change in uses where such renovations, additions or changes in use are to an extent exceeding an expenditure of fifty per cent (50%) of the replacement value after alterations are made. The plan shall be submitted to the Regulatory Department. The Regulatory Department or its assignee, shall then determine if the plan meets all requirements herein and either approve or disapprove the plan on that basis. If disapproved, justification must be given to the applicant. A landscape plan must be approved prior to issuance of a building permit. The following information shall be included in the plan:

1. North point scale. (Scale not to exceed 1"=40' with 1"=20' desirable).

2. The location, size, surface materials and color of all structure(s), parking areas, and other man-made elements.

3. The location, type and size of major existing plant materials.

4. The location, type and size and quantity of proposed plant and other materials. Common and botanical names shall be identified adjacent to all plant material or by use of a key and legend.

5. The location of dumpsters or other trash receptacles and adequate screening as per Regulatory approval.

6. Scale shown for plant material shall reflect mature size.

D. LANDSCAPE AREA REQUIREMENTS

1. General

a. A minimum of seventy-five percent (75%) of the required landscaped area shall have a ground cover or grass and other plant materials. The remaining twenty-five percent (25%) maximum may be covered with rock, stone, bark, etc., and other impermeable features including sidewalks and points of ingress and egress.

b. If the area used for parking is placed between the landscape setback abutting a public right-of-way and the structure(s), then a screening of the parking area shall be established in the rear portion of the landscape setback area, whenever possible. This view-obsecuring screen shall be at least 42 inches high and may be composed of live plantings or artificial structures.

c. On corner lots, any plantings which obstruct the view of traffic shall be permitted within that area between the side and front lot lines of the lot and a line joining two points lying on the center lines of the street intersecting at the corner and ninety (90) feet distance from the point of intersection.

2. Multi-Family

a. Front setback areas otherwise provided for in this ordinance and any other area not covered by building(s), parking area, walkways or other structures shall be landscaped.

b. Required within the landscape setbacks abutting public rights-of-way, one tree or shrub, deciduous or evergreen, for every 10 feet (or portion thereof) of street frontage. This should not be construed to mean trees or shrubs placed 10 feet on center.

c. In addition to trees or shrubs required based upon public street frontage, one tree or shrub is also required per dwelling unit.

d. A minimum of 20% of the required plants (trees and shrubs) shall be trees.

3. Office (G-0) and Commercial (C-1 and C-2) Districts

a. Front setback areas as otherwise provided for in this ordinance as well as side and rear setbacks (where no alley) if abutting a residential zone shall be landscaped.

b. Required within the landscape setbacks abutting public rights-of-way, one tree or shrub, deciduous or evergreen, for every 10 feet (or portion thereof) of street frontage. This should not be construed to mean trees or shrubs placed 10 feet on center.

c. In addition to trees or shrubs required based upon public street frontage, one tree or shrub is required for every 1,000 square feet of lot area.

d. A minimum of 20% of the required plants (trees and shrubs) shall be trees.

4. Industrial (S-I, L-I and H-I) Districts

a. Front setback areas as otherwise provided for in this ordinance as well as side and rear setbacks (where no alley) if abutting a residential zone.

b. Required within the landscape setbacks abutting public rights-of-way, one tree or shrub, deciduous or evergreen, for every 10 feet (or portion thereof) of street frontage. This should not be construed to mean trees or shrubs placed 10 feet on center.

c. In addition to trees or shrubs required based upon public street frontage, one tree or shrub is required for every two thousand, five hundred (2,500) square feet of lot area.

d. A minimum of 20% of the required plants (trees and shrubs) shall be trees.

5. Planned Unit Developments (PUD) in accordance with the requirements of the District in which the use is normally permitted and in accordance with the landscaping requirements of Section 20.08

E. PLANTINGS

1. Minimum size of plant and other materials:

a. Deciduous trees - two inch (2") caliper, measured one foot (1') above the ground.

b. Ornamental and flowering trees - two inch (2") caliper, one foot (1') above the ground.

c. Evergreen trees - six feet (6') in height.

d. Flowering and evergreen shrubs and hedges - five gallon size.

e. Vines and ground covers - one gallon size.

f. Bark or mulch - in areas protected from wind erosion.

g. Rock or gravel - one inch (1") to two inches (2") in size at least three inches (3") in depth over a weed barrier ground cover.

2. Plants indigenous to the area or acclimated to growing in this climate shall be used.

3. Completion of Landscaping:

When the final landscape plan is submitted, a date for completion of all plantings and related work shall be included on the plan. Landscaping shall be installed and completed prior to the issuance of a Certificate of Occupancy.

F. MAINTENANCE

1. The developer, his successor, and/or the property owner shall be responsible for regular weeding, irrigating, fertilizing, pruning or other maintenance of all plantings as needed.

2. Plant materials which exhibit evidence of insect pests, disease and/or damage shall be appropriately treated, and dead plant materials shall be replaced.

3. The property owner of land abutting a constructed public right-of-way is responsible for landscaping and maintenance of any right-of-way area between his property line and the curb line.

4. All plantings will be subject to periodic inspections by City of Kenner agents.

APPENDIX C

CITY OF KENNER'S WASTEWATER ORDINANCE AND PRETREATMENT PROGRAM (ORDINANCE NO. 7138)

PARTS I, II, & III TABLE OF CONTENTS

On motion of Councilman Congemi, seconded by Councilman Bonura, the following Ordinance was introduced:

SUMMARY NO. 7879 ORDINANCE NO. 7138

AN ORDINANCE REPEALING ORDINANCE NO. 6635, ADOPTED JULY 25, 1991; AND ENACTING A NEW CITY OF KENNER WASTEWATER ORDINANCE AND PRETREATMENT PROGRAM.

WHEREAS, said Ordinance No. 6635 was adopted to repeal Ordinance No. 3355 adopted December 16, 1982, Ordinance No. 3614 adopted August 4, 1983, Ordinance No. 3826 adopted January 1984, and Ordinance No. 5763 adopted October 2, 1986; and,

WHEREAS, the City of Kenner entered into a Consent Decree with the EPA in January 1994 requiring modifications to Ordinance No. 6635; and,

WHEREAS, the changes requested from EPA and by the Environmental Section of the Department of Wastewater Operations are considered to be substantial modifications by the Environmental Protection Agency (EPA), requiring EPA approval prior to implementation and approval by the City of Kenner Council; and,

WHEREAS, the revised Wastewater Ordinance and Pretreatment Program as attached hereto, has been submitted to the EPA and has received their approval as of October 31, 1994; and,

WHEREAS, the proposed new City of Kenner Wastewater Ordinance and Pretreatment Program addresses and satisfies all requirements of the EPA, and gives the City all necessary enforcement powers; and,

WHEREAS, the proposed new City of Kenner Wastewater Ordinance and Pretreatment Program creates effluent limitations for users of the system, which are derived specifically to address the quality of the effluent generated by local business and industry; and,

WHEREAS, it is in the best interests of the citizens of the City of Kenner that a new City of Kenner Wastewater Ordinance and Pretreatment Program be adopted to further protect the health and safety of the City.

THE CITY COUNCIL OF THE CITY OF KENNER HEREBY ORDAINS:

SECTION I: That Ordinance No. 6635 adopted July 25, 1991, be and the same is hereby repealed.

SECTION II: That a new City of Kenner Wastewater Ordinance and Pretreatment Program is hereby adopted, to be known as the City of Kenner Wastewater Ordinance and Pretreatment Program attached hereto and approved by the Environmental Protection Agency.

This Ordinance was declared adopted on this 5th day of January, 1995

COUNCIL CLERK

COUNCIL PRESIDENT

SUBMITTED BY: Councilman McCarthy at the request of Mayor Aaron F. Broussard/Department of Wastewater Operations

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Part III	ENFORCEMENT RESPONSE PLAN
Part IV	APPENDICES A-Legal Authority B-Act 658 of the Louisiana Legislative Session C-Multijurisdictional Agreements D-Agreement between the City of Kenner Department of Wastewater Operations and the City of Kenner Department of Inspections and Code Enforcement

CITY OF KENNER

WASTEWATER ORDINANCE

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CITY OF KENNER

WASTEWATER ORDINANCE

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WASTEWATER ORDINANCE

PART III
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APPENDIX C

ROADWAY MAINTENANCE PROGRAM

CITY OF KENNER
MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT
LAS000201

Submitted to

THE ENVIRONMENTAL PROTECTION AGENCY
REGION VI

Prepared by

THE CITY OF KENNER

October 10, 1998

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SECTION 1
INTRODUCTION

This Roadway Maintenance Program (RMP) has been prepared in accordance with the National Pollutant Discharge Elimination System (NPDES) Permit requirements. This RMP summarizes the City of Kenner's operations and maintenance policies and procedures to reduce the discharge of pollutants to waters of the Unites States from its roadway system. This section provides background information on the regulatory aspects of controlling storm water pollution as well as general requirements of the RMP as determined by the final NPDES Permit issued to the City of Kenner Municipal Separate Storm Sewer System (MS4).

1.1 BACKGROUND

A final NPDES Permit, No. LAS000201, was issued to the Parish of Jefferson, Louisiana Department of Transportation and Development - District 02, City of Gretna, City of Harahan, City of Kenner, and City of Westwego to discharge from all portions of the Jefferson Parish MS4 to waters of the United States in accordance with the Storm Water Management Program (SWMP). The final NPDES Permit was issued by the United States Environmental Protection Agency (USEPA) on January 17, 1997, and became effective on March 1, 1997.

The NPDES MS4 Permit requires Jefferson Parish and the incorporated Cities of Gretna, Harahan, Kenner, and Westwego to develop, revise, and implement a comprehensive SWMP. The SWMP shall include administrative, non-structural, and structural practices to reduce the discharge if pollutants from the Municipal Separate Storm Sewer System to the Maximum Extent Practicable (MEP).

One of the requirements of the SWMP is the development and implementation of a Roadway Maintenance Program by each permittee. This document outlines the City of Kenner's policies and procedures to comply with the RMP portion of the NPDES Permit.

Furthermore, Part II-Section A.3 "Roadways" of the permit identifies the criteria for the development of the Roadway Maintenance Program as follows:

"3. Roadway: Public streets, roads, and highways shall be operated and maintained in a manner to minimize discharge of pollutants, including pollutants related to deicing or sanding activities."

1.2 PURPOSE

This Roadway Maintenance Program was prepared to identity and describe the actions the City of Kenner takes to reduce the discharge of pollutants to the storm water drainage system from its roadway system inside the M54 area. The major objectives of the City of Kenner's Roadway Maintenance Program are to:

1. Conduct structural repairs to maintain the street paving and to avoid seepage of Storm water through defective paving;
2. Conduct periodic cleaning of catch basins and drop inlets;
3. Conduct street sweeping to enhance source control and elimination; and
4. Control vegetation within street right-of-ways, roadsides and medians.

The practices included in this program include administrative actions such as reporting and ordinance control; non-structural controls such as street sweeping and catch basin maintenance; and structural alternatives such as vegetative medians, and roadsides that serve as filters for storm water prior to entering the collection system.

1.3 CITY OF KENNER JURISDICTION

The City of Kenner is responsible for the design, construction, and operation and maintenance of the majority of roadways within the MS4 boundary. All State and Federal Highways within the City of Kenner are operated and maintained by the Louisiana Department of Transportation and Development (DOTD).

During emergency situations, such as flooding and hurricanes, the City of Kenner may request Jefferson Parish personnel assist during cleanup activities and restoration.

SECTION 2
CITY OF KENNER DEPARTMENTS' RESPONSIBILITY

The City of Kenner uses various departments for the operation and maintenance of its roadway system to control discharges of pollutants into the storm water collection system. The following departments are involved, either directly or indirectly, in the maintenance of the city roadway system:

1. Public Works Department;
2. Inspection and Code Enforcement Department; and
3. Fire Department

2.1 PUBLIC WORKS DEPARTMENT

The Public Works Department is responsible for the operation and maintenance of the roadway system throughout the City. The Public Works Department personnel conduct minor structural street repairs including concrete slab repairs and replacement and/or patching and resurfacing of asphalt paving on damaged streets. Independent contractors are hired to conduct more extensive structural repairs.

In addition to structural street repairs and supervision of independent contractors, the Public Works Department is responsible for cleaning catch basins and drop inlets to reduce the introduction of floatables into the storm water drainage system and to improve drainage during wet weather.

The Public Works Department is also responsible for the maintenance of green areas located along roadside and medians. Vegetative cover reduces erosion and serves as a filter for pollutants that would otherwise enter the storm water drainage system. The Public Works Department removes accumulated trash and debris from medians and roadside areas. Trash cans are placed along major roadways and at bus stops and are emptied periodically. The Public Works Department assists the "Women for a Better Louisiana" with their litter pick up community service project for people convicted of drunken driving. Additionally, they provide assistance with many neighborhood clean up projects. An "Adopt-A-Parkway" program has been established in which businesses and organizations pay a fee to adopt and maintain a stretch of median, including planting vegetation and picking up litter.

The Public Works Department personnel sweep streets in the City of Kenner. Primary and secondary streets have been classified based on sweeping frequency intervals. Primary streets are swept either weekly or biweekly, while, secondary streets are cleaned biweekly to

monthly.

The Public Works Department personnel remove animal carcasses from the roadways. This practice improves roadway aesthetics, prevents odor problems, and reduces the pollutant loading into the storm water collection system.

The Public Works Department personnel also respond to citizens' complaints to remove either accumulated trash and litter in their neighborhood or excess sediments and debris in catch basins and drop inlets.

2.2 INSPECTION AND CODE ENFORCEMENT DEPARTMENT

The Inspection and Code Enforcement Department is involved with a number of programs that directly and indirectly affect storm water runoff quality. The Inspection and Code Enforcement Department personnel enforce the prohibition of weeds growing and placement of trash within a minimum 150 feet radius of public streets. The Inspection and Code Enforcement Department personnel review private and governmental construction plan and inspect their roof drains connected to the City's drainage system instead of shooting to the streets.

2.3 FIRE DEPARTMENT

The Fire Department responds to incidents on the city streets involving hazardous materials that pose an exposure risk to the storm drainage system.

The Fire Department personnel work with the Public Works Department to contain spilled material and protect the environment. The City of Kenner has a contract with an Environmental Response Contractor to allow for immediate containment and cleanup of spilled material.

SECTION 3
MAINTENANCE PRACTICES AND PROCEDURES

This section addresses the City of Kenner's operating and maintenance practices and procedures to reduce the discharge of pollutants from its roadway system into the storm water collection system.

The City of Kenner's practices in this program include administrative actions such as reporting and source control through the use of ordinances; non-structural controls such as street sweeping, pothole repairing and catch basins maintenance; and structural alternatives such as vegetative medians and roadsides that serve as filters for storm water prior to entering the collection system.

3.1 ADMINISTRATIVE PROCEDURES

Administrative procedures presented herein include preventative actions through management and source control by implementing policies and ordinances that result in prevention of pollutant runoff. In addition, the City of Kenner relies on citizens' participation through reporting "problem areas" where trash and debris accumulate.

3.1.1 The City of Kenner Ordinances

The City of Kenner uses its legal power to create, adopt, and implement ordinances to control discharges into the storm water collection system. Many of the ordinances implemented by the City of Kenner render it illegal and punishable by law to pollute the storm water collection system.

3.1.2 Citizens Complaints

Public involvement and participation is a critical key to the success of storm water runoff quality. The creation of education programs is vital to inform citizens about the impacts that storm water runoff and discharges have on the water quality of the receiving body.

Citizen complaints associated with street maintenance problems are investigated and corrected by the Public Works Department. These investigations serve to identity problem areas and facilitate the expedient scheduling and implementation of corrective actions, such as litter collection and removal accumulated on City-owned vacant lots. These operation and maintenance practices are the responsibility of the Public Works Department and serve to

reduce pollutant loading to the receiving water body by reducing floatables in street runoff.

3.2 NON-STRUCTURAL CONTROLS

Non-Structural controls are implemented through Best Management Practices (BMPs) with preventative actions to reduce the discharge of pollutant runoffs. The City of Kenner's BMPs include street sweeping, catch basins maintenance, mitigation cleanups, and vegetative control.

3.2.1 Street Sweeping

The City of Kenner Public Works Department sweep the major through fares daily. Three day rotation are done in each of fire Council Districts. All collected trash and debris is properly disposed of at permitted landfill.

During seasonal events, such as Mardi Gras and special events, Jefferson Parish handles the street sweeping. Jefferson Parish assists the City of Kenner Public Works Department in cleaning and sweeping streets following these large-scale events. Immediate cleaning practices help reduce the pollutant loading into the open channel storm water collection system. The selected private contractor also assists during cleanup operations immediately following each special event (e.g., parades).

3.2.2 Catch Basin Maintenance

The Public Works Department also conducts cleaning of trash and wind-blown debris accumulated in catch basins, drop inlets, and drainage lines. The Public Works Department personnel utilize vacuum trucks to remove accumulated debris. Collected debris is properly disposed of at a permitted disposal facility. In addition to reducing pollutant runoff from debris accumulated in catch basins, this practice improves hydraulic capacity of the drainage system.

3.2.3 Chemical Management

3.2.3.1 Chemical Spills. Reportable spills of hazardous materials are reported to the Fire Department personnel who respond to incidents involving hazardous materials that pose an exposure risk to the storm drainage system.

The Public Works Department personnel work with the Fire Department to contain spilled material and protect the environment. The City of Kenner has a contract with an

Environmental Response Contractor to allow for immediate containment and cleanup of spilled material.

3.2.3.2 Deicing Activities. Roadways in the southern part of the State of Louisiana have very little need for deicing. Therefore, deicing and sanding activities are not common practices in the City of Kenner. Deicing activities are predominantly conducted on either state or federal highways at overpasses and bridges. Deicing procedures on these roadways are the responsibility of the Louisiana Department of Transportation and Development.

3.2.3.3 Herbicide Management. The City of Kenner has developed a Pesticide, Herbicide, and Fertilizer Program Herbicide application is conducted in areas not accessible by mechanical equipment, during extreme growing seasons, and when there is a shortage of resources and/or personnel to mow. The Public Works Department personnel that use herbicide chemicals follow all applicable state and federal regulations. The landscape architect supervises pesticide applicators are certified by the Louisiana Department of Agriculture and Forestry.

3.2.4 Vegetation Control

The Public Works Department maintains green areas located along the roadside and medians. Vegetative cover minimizes erosion and serves as a filter for pollutants that would otherwise enter the storm water drainage system.

The Public Works Department uses in-house personnel to maintain medians and roadside areas within the City of Kenner. The City of Kenner currently maintains vegetative areas presented at Appendix A. The City of Kenner conducts grass cutting and litter collection in more visible areas for aesthetic reasons. The Public Works Department personnel properly dispose of all collected debris and litter.

The Public Works Department operates a two-week rotation for all green areas within the City of Kenner. However during summer months, the maintenance schedule is increased to three times per month.

3.3 STRUCTURAL CONTROLS

The City of Kenner's structural controls include catch basin covers and vegetative areas to minimize the discharge of pollutant runoffs.

3.3.1 Catch Basin Covers

Catch basin covers prevent floatables, such as bottles, from entering the storm water collection system. Catch basins are cleaned during street sweeping activities. In addition, the Public Works Department personnel clean catch basins in response to citizens' complaints.

3.3.2 Vegetative Cover

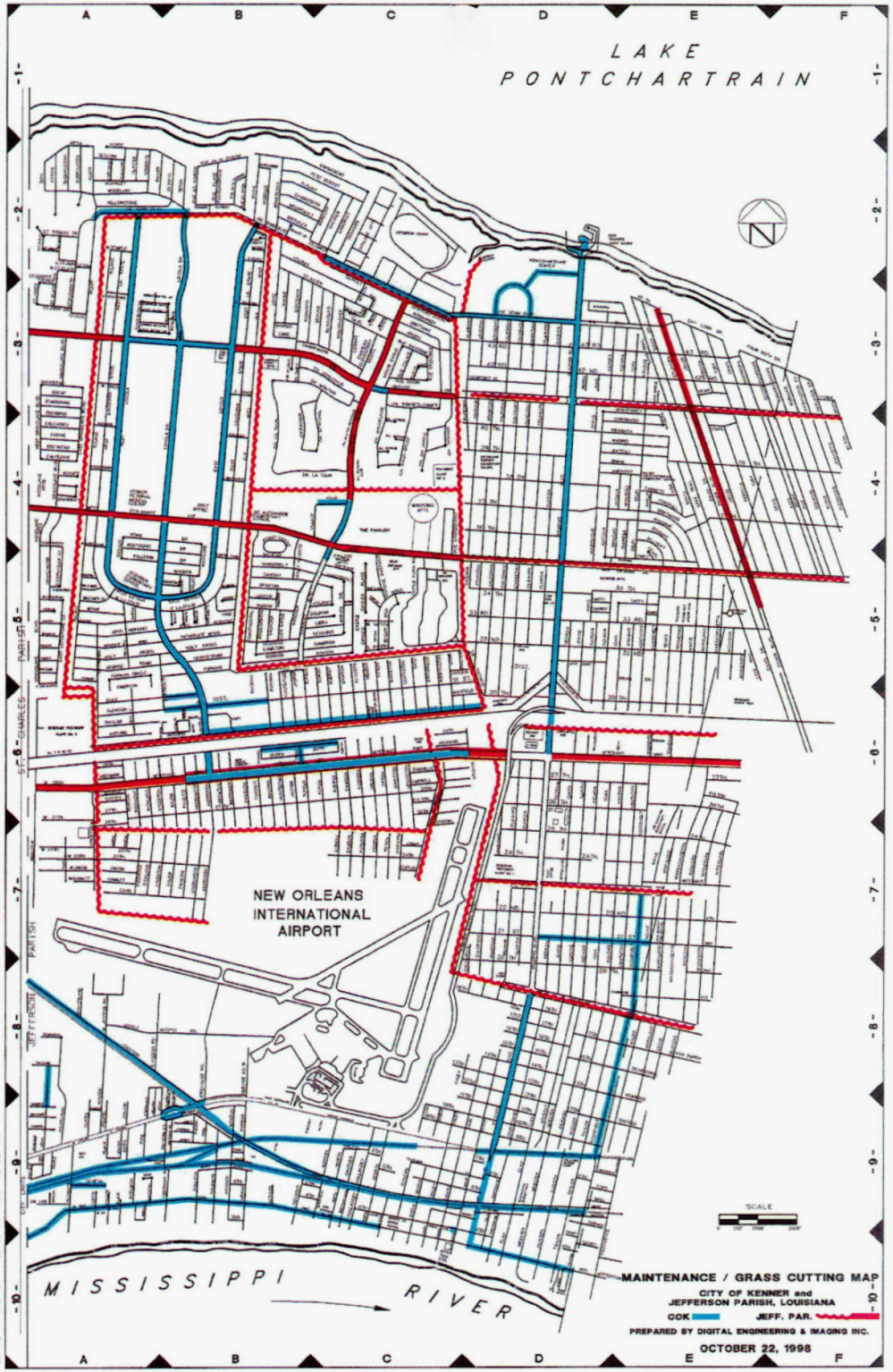
Vegetative cover is slows down the velocity of storm water runoff to minimize erosion and provide filtration for pollutants that would otherwise enter the storm water collection system.

3.3.3. Pothole Repair

Potholes in roads are repaired on as needed basis. This practice prevents the accumulation of water and oil from settling in these holes and, subsequently, entering the storm drainage system.

APPENDIX A

MAJOR ROAD MAINTENANCE AND GRASS CUTTING MAP


LAKE
PONTCHARTRAIN
NEW ORLEANS
INTERNATIONAL
AIRPORT
MISSISSIPPI
RIVER
JEFFERSON PARISH
ST. CHARLES PARISH
SCALE
MAINTENANCE / GRASS CUTTING MAP
CITY OF KENNER and
JEFFERSON PARISH, LOUISIANA
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PREPARED BY DIGITAL ENGINEERING & IMAGING INC.
OCTOBER 22, 1998
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APPENDIX D

GUIDANCE DOCUMENT
(TECHNICAL CRITERIA)
FOR
ASSESSMENT OF WATER QUALITY IMPACTS FROM NEW FLOOD CONTROL PROJECTS

CITY OF KENNER
MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT
LAS000201

Submitted to

THE ENVIRONMENTAL PROTECTION AGENCY
REGION VI

Prepared by

THE CITY OF KENNER

February 1999

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APPENDIX **City of Kenner's Major Flood Protection System**

SECTION 1
INTRODUCTION

This "Guidance Document for Assessment of Water Quality Impacts from New Flood Control Projects" has been prepared in accordance with the National Pollutant Discharge Elimination System (NPDES) Permit requirements. This guidance document summarizes City of Kenner's policies and procedures to assess of water quality impacts to waters of the United States contributed by new flood control projects. This section provides background information on the regulatory aspects of controlling storm water pollution as well as general requirements on the guidance document as determined by the final NPDES Permit issued to the City of Kenner Municipal Separate Storm Sewer System (MS4).

1.1 BACKGROUND

A final NPDES Permit, No. LAS000201, was issued to Jefferson Parish, Louisiana Department of Transportation and Development-District 02, City of Gretna, City of Harahan, City of Kenner, and City of Westwego to discharge to waters of the United States in accordance with the Storm Water Management Program (SWMP). The final NPDES Permit was issued by the United States Environmental Protection Agency (USEPA) on January 17, 1997, and became effective on March 1, 1997.

The NPDES MS4 Permit requires Jefferson Parish and the incorporated Cities of Gretna, Harahan, Kenner, and Westwego to develop, revise, and implement a comprehensive SWMP. The SWMP shall include administrative, non-structural, and structural practices to reduce the discharge of pollutants from the Municipal Separate Storm Sewer System to the Maximum Extent Practicable (MEP).

One of the requirements of the SWMP is the development and implementation of a "Guidance Document for Assessment of Water Quality Impacts from New Flood Control Projects" by each permittee. This document outlines City of Kenner's policies and procedures to comply with the guidance document portion of the NDPES permit.

1.2 PURPOSE

This guidance document was prepared to summarize the City of Kenner's policies and procedures to assess of water quality impacts (the discharge of pollutants into waters of the United States) from new flood control projects.

1.3 CITY OF KENNER JURISDICTION

All existing flood control structures inside the boundaries of the City of Kenner were planned, designed, constructed, operated and maintained by either the United States Army Corps of

Engineers or Jefferson Parish. The City of Kenner anticipates any new flood control projects to continue be planned, designed, constructed, operated and maintained by either the United States Corps of Engineers or Jefferson Parish. Before completion of new flood control projects inside the boundaries of the City of Kenner, the assessment of water quality impacts are expected to be reviewed by the United States Army Corps of Engineers, Louisiana Department of Natural Resources' Coastal Management Division, and Jefferson Parish.

The staff of the Kenner Department of Public Works will notify the Jefferson Parish Environmental and Development Control Division (EDCD) if pollutants (such as illicit discharges) are visually found in the completed flood control projects within the boundaries of the City of Kenner. Jefferson Parish will be responsible for the water quality parameters selected for pollution index purposes which will be analyzed in the environmental laboratory.

SECTION 2
CITY OF KENNER'S "FLOOD CONTROL PROJECTS"

2.1 DEFINITION OF "FLOOD CONTROL PROJECTS"

The City of Kenner's topographical characteristic of below sea level elevations, has necessitated facilities such as protective levees, open drainage canals, and pump stations to provide positive drainage and flood protection. Levees, canal construction and modification, and pumping stations construction and modification are to be considered flood control projects. The existing major flood protection system within the City of Kenner is presented in the Appendix. The Parish of Jefferson is responsible for presentation of any new or anticipated flood control projects inside the City of Kenner's boundaries.

2.2 HISTORICAL AND ANTICIPATED FUTURE PROJECTS

The land surface within the City of Kenner is below mean sea level. This topographical characteristic in conjunction with the needed protective levees has created a "saucer" effect in the drainage basin. Fortunately, Jefferson Parish has, over the years, designed and constructed several high capacity pump stations to convey collected storm water runoff within the City over these protective levees and into Lake Pontchartrain. The Jefferson Parish Drainage Department currently maintains a constant water level in the canals to minimize fluctuating groundwater and thereby reducing regional subsidence and canal bank slope failures.

Two pump stations were built within the City of Kenner to protect the City from flooding. They are Parish Line Pump Station (Pump Station No. 5) and Lakefront Pump Station at Duncan Cannel (Pump Station No. 4). These two pump stations are operated and maintained by Jefferson Parish Drainage Departments.

Any future flood control projects would have the same goal as the existing which is to protect the City of Kenner from flooding.

SECTION 3
PERMITTING AND WATER QUALITY IMPACT ASSESSMENT

3.1 PERMITTING AND REVIEWING PRACTICES

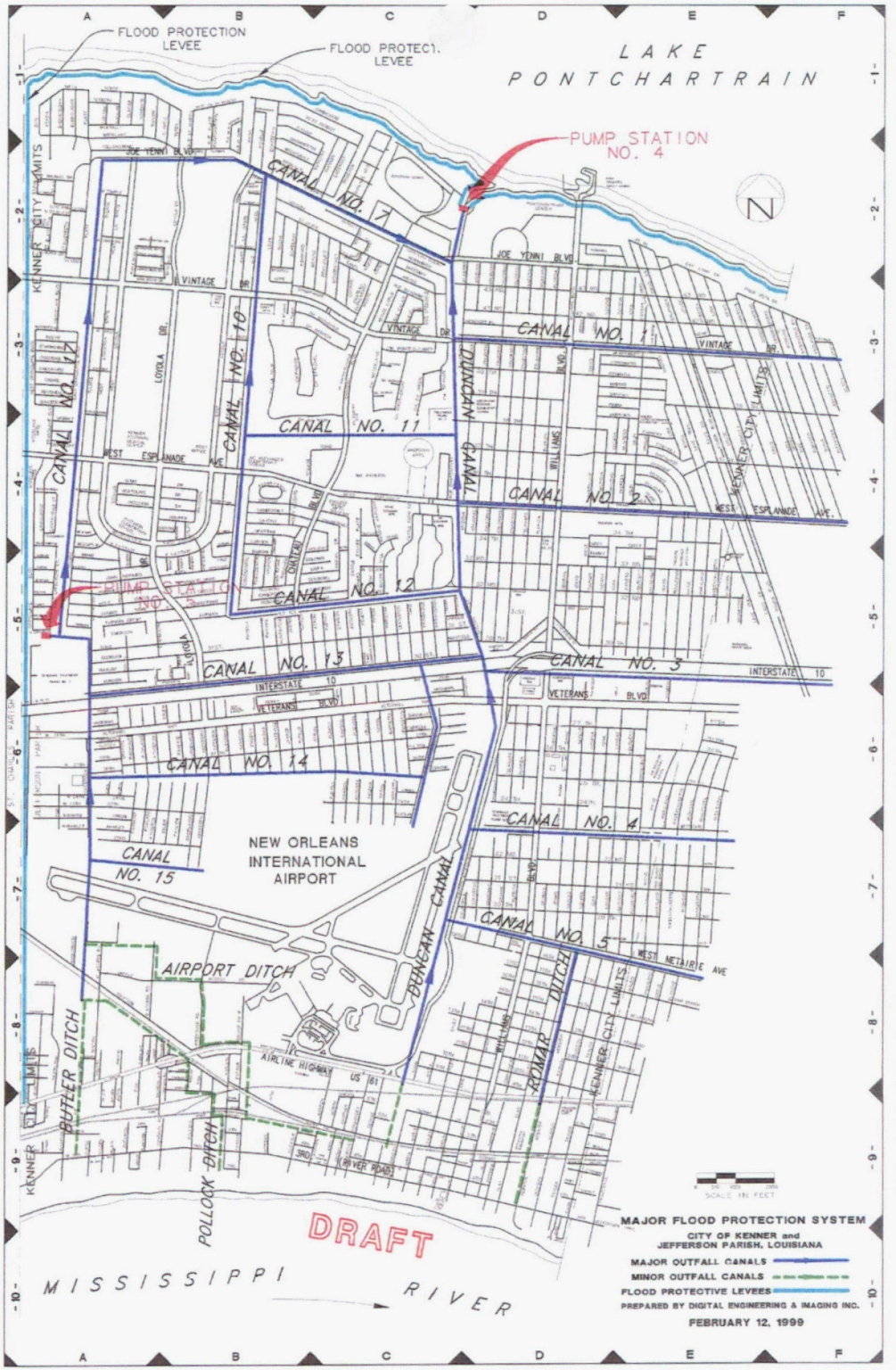
The City of Kenner anticipates that the United States Army Corps of Engineers, Louisiana Department of Natural Resources' Coastal Management Division, and Jefferson Parish will continue to be responsible for assessment of water quality impacts from new flood control projects within the City of Kenner's boundaries. The new flood control projects' permit application should follow appropriate current federal, state and local environmental protection regulations. It is expected that all major flood control projects proposed within the City of Kenner's boundaries would have at least one public hearing.

3.2 WATER QUALITY ASSESSMENT

The assessment of water quality impacts should be based on receiving water bodies' existing and future water quality condition. Under no circumstances should the new flood control projects cause any adverse impacts to the existing conditions. Any assessment should consider both short-term and chronic water quality impacts. The water quality of receiving water bodies should be analyzed frequently to ensure that no deterioration is occuring. The City of Kenner will notify Jefferson Parish and other proper parties if any adverse water quality due to new flood control projects are observed.

APPENDIX

CITY OF KENNER'S
MAJOR FLOOD PROTECTION SYSTEM



FLOOD PROTECTION LEVEE
FLOOD PROTECT. LEVEE
LAKE PONTCHARTRAIN
PUMP STATION NO. 4
PUMP STATION NO. 5
CANAL NO. 1
CANAL NO. 2
CANAL NO. 3
CANAL NO. 4
CANAL NO. 5
CANAL NO. 7
CANAL NO. 10
CANAL NO. 11
CANAL NO. 12
CANAL NO. 13
CANAL NO. 14
CANAL NO. 15
CANAL NO. 17
DUNCAN CANAL
ROMAR DITCH
BUTLER DITCH
POLLOCK DITCH
AIRPORT DITCH
NEW ORLEANS INTERNATIONAL AIRPORT
KENNER CITY LIMITS
JOE YENNI BLVD
VINTAGE DR
WEST ESPLANADE AVE
INTERSTATE 10
VETERANS BLVD
WEST METAIRIE AVE
AIRLINE HIGHWAY US 61
RIVER ROAD
LOYOLA DR
WILLIAMS BLVD
CHATEAU BLVD
DRAFT
MISSISSIPPI RIVER
SCALE IN FEET
MAJOR FLOOD PROTECTION SYSTEM
CITY OF KENNER and JEFFERSON PARISH, LOUISIANA
MAJOR OUTFALL CANALS
MINOR OUTFALL CANALS
FLOOD PROTECTIVE LEVEES
PREPARED BY DIGITAL ENGINEERING & IMAGING INC.
FEBRUARY 12, 1999

APPENDIX E

PESTICIDE, HERBICIDE, AND FERTILIZER PROGRAM

CITY OF KENNER
MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT
LAS000201

Submitted to

THE ENVIRONMENTAL PROTECTION AGENCY
REGION VI

Prepared by

THE CITY OF KENNER

October 10, 1998

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SECTION 1
INTRODUCTION

This Pesticide, Herbicide, and Fertilizer (PH&F) Program has been prepared in accordance with the National Pollutant Discharge Elimination System (NPDES) Permit requirements. This PH&F Program summarizes the City of Kenner's employee training and certification, chemical storage and labeling, application, and disposal practices and procedures to reduce the discharge of pollutants to waters of the United States. This section provides background information on the regulatory aspects of controlling storm water pollution as well as general requirements on the PH&F Program as determined by the final NPDES Permit issued to the City of Kenner Municipal Separate Storm Sewer System (MS4).

1.1 BACKGROUND

A final NPDES Permit, No. LAS000201, was issued to Jefferson Parish, Louisiana Department of Transportation and Development-District 02, City of Gretna, City of Harahan, City of Kenner, and City of Westwego to discharge from all portions of the Jefferson Parish MS4 to waters of the United States in accordance with the Storm Water Management Program (SWMP). The final NPDES Permit was issued by the United States Environmental Protection Agency (USEPA) on January 17, 1997, and became effective on March 1, 1997.

The NPDES MS4 Permit requires Jefferson Parish and the incorporated Cities of Gretna, Harahan, Kenner, and Westwego to develop, revise, and implement a comprehensive SWMP. The SWMP shall include administrative, non-structural, and structural practices to reduce the discharge of pollutants form the Municipal Separate Storm Sewer System to the Maximum Extent Practicable (MEP).

One of the requirements of the SWMP is the development and implementation of a PH&F Program by each permittee. This document outlines the City of Kenner's policies and procedures to comply with the PH&F Program portion of the NPDES Permit.

Furthermore, Part II-Section A5 "Pesticide, Herbicide, and Fertilizer Application" of the permit identifies the criteria for the development of the PH&F Program as follows:

"5. Pesticide, Herbicide, and Fertilizer Application: Each permittee shall implement controls to reduce the discharge of pollutants related to the storage and application of pesticides, herbicides, and fertilizers applied by the permittee's employees or contractors, to public right of ways, parks, and other municipal property. Permittees with jurisdiction over lands not directly owned by that entity (e.g. incorporated city) shall implement programs to reduce the

discharge of pollutants related to commercial application and distribution of pesticides, herbicides, and fertilizers."

1.2 PURPOSE

This PH&F Program was prepared to identify and describe practices and operating procedures employed by the City of Kenner to reduce the discharge of pollutants to the storm water drainage system from the storage and application of pesticides, herbicides, and fertilizers.

1.3 CITY OF KENNER JURISDICTION

The City of Kenner is responsible for vegetation control within the MS4 boundary. However, the City of Kenner is not responsible for vegetation control at certain area within the city limits Jefferson Parish is responsible for presented at Appendix A. Furthermore, the Louisiana Department of Transportation and Development is responsible for vegetation control within State and Federal Highways.

SECTION 2
CITY OF KENNER DEPARTMENTS' RESPONSIBILITY

The City of Kenner joins with Jefferson Parish use many programs to control discharge into and from the storm water drainage system. These programs include structural controls, source controls, and controls through ordinances. In the City of Kenner, the Public works Department is solely responsible for maintenance of parks, recreational areas, and green areas in streets, medians, and drainage ditches.

2.1 PUBLIC WORKS DEPARTMENT

The Public Works Department is involved with a number of programs that directly and indirectly affect storm water runoff quality. The Public Works Department personnel maintain recreational parks and playgrounds in the City of Kenner. The Public Works Department personnel cutting grass and picking up litters at green areas located on medians and along city maintained roadsides. The Public Works Department is also responsible for vegetation control within open drainage ditches, including bottom, slope, and right-of-way. The landscape architect that supervises the chemical applications (such as pesticides) on roadsides, right-of-ways, and aquatic areas is certified by the Louisiana Department of Agriculture and Forestry. The landscape architect attends a refresher course every three years to renew his certification. Vegetation growth within the drainage canals is controlled to allow for maximum water flow.

2.2 INSPECTION AND CODE ENFORCEMENT DEPARTMENT

In addition to the Louisiana Department of Agriculture and Forestry inspections, the Inspection and Code Enforcement personnel randomly monitor chemical spraying by the private sectors. The random monitoring actions are accompanied by a certified landscape architect.

SECTION 3
CHEMICAL STORAGE AND APPLICATION

This section addresses the City of Kenner's practices and procedures to reduce the discharge of pollutants into the storm water collection system and receiving water bodies related to the storage and application of pesticides, herbicides, and fertilizers.

3.1 CHEMICAL STORAGE

All chemicals stored by the City of Kenner are stored indoors and under lock and key. The Public Works Department personnel spray pesticide, herbicide, and fertilizer at the City's responsible territory. Storage facilities are ventilated and provided with proper lighting for personnel movement. The Public Works Department does not store chemicals in bulk containers. All concentrated chemicals are stored in containers not exceeding five gallons in capacity and labeled for proper identification.

The Public Works Department personnel that spray fertilizers try to schedule the ordering of these chemicals so that most of the storage quantities are used by the end of the spraying season The same as the pesticides and herbicides. The Public Works Department pesticide/herbicide storage facilities are operated in accordance with the Louisiana Department of Agriculture and Forestry regulations.

3.1.1 Containers

The Public Works Department personnel store pesticide, herbicide, and fertilizer products in their original containers, sealed tightly. However, if small volumes of chemical must be placed in a separate container, designated personnel take precautions to place them in compatible containers so that the ability of the container to store the material is not compromised. All containers are washed and triple rinsed prior to disposal.

3.1.2 Labels

The label is a legal agreement between the product manufacturer and the user. Product labels provide instructions for all phases of use. Personnel applying the material must read and understand label directions carefully. Chemicals are not applied at higher rates than recommended by the manufacturer.

All chemical containers used by the Public Works Department personnel bear a label containing, but not limited to, the following information:

1. Label information required by the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), if a pesticide is subject to registration under law;
2. Accepted common name;
3. Name and percentage by weight of each active ingredient;

4. Directions for use, such as application rates and methods; and
5. Cleanup, storage, and disposal instructions.

3.1.3 Inspection

The landscape architect conducts inspections on commercial applicators and the Public Works Department personnel treating roadsides, rights-of-way, and city drainage ditches where spraying activity is taking place. The landscape architect is certified in the following categories: (1) "5A-Aquatic", and (2) "6- Roadsides and Right-of-way." For all other city property, the landscape architect is required to have the general applicator certification.

The inspections are conducted on applications to the drainage ditches in the City of Kenner. However, if there is a complaint concerning an application on private property, the Inspection and Code Enforcement Department works in conjunction with the Public Works Department to investigate the complaint. The Department of Agriculture and Forestry may perform random inspections of both public and private applications The City's landscape architect are performed inspections periodically during the spraying season and are recorded on an Application Inspection Report Form, included as Appendix B. The Public Works Department personnel file the reports with any problems noted by the inspector highlighted. If any problems are noted, they are reported to the applicator's supervisor or the Louisiana Department of Agriculture and Forestry for corrective action.

3.2 CHEMICAL APPLICATION

The Public Works Department personnel spray chemicals in the City of Kenner responsible territory. In addition to herbicide application for unwanted vegetation control, airborne pesticides may be sprayed for insect control on roads adjacent to the ditches during the summer months. The same as rodenticides spray around the ditches. If there are any applications performed by contractors, their applicators have to be certified in accordance with the Louisiana Department of Agriculture and Forestry regulations.

Successful weed control requires application of the correct amount of chemicals uniformly over a targeted area. The City of Kenner personnel are instructed to closely follow application rates, as suggested by the manufacturer.

The City of Kenner personnel applying chemicals take into account wind conditions to avoid "off target" damage to private property. Therefore, chemicals are not applied when wind velocities exceed five miles per hour (5 mph). In addition to wind conditions, potential for chemical movement in surface water runoff to storm water is considered prior to applying chemicals. The City of Kenner personnel evaluate weather conditions to allow a minimum of eight (8) hours between a spray event and a forecasted rain event.

Conventional hoses and handguns are generally utilized to spray herbicides in areas with high traffic volumes. Truck-mounted spray systems are sometimes used in more segregated areas.

Fertilizers are not typically used on public right of ways, parks, and other municipal property. The local climate and soil conditions are such that desirable vegetation grows quite easily without artificial nutrition.

3.3 DISPOSAL PRACTICES

The Public Works Department personnel that use pesticides, herbicides, and fertilizers try to schedule the ordering of these chemicals so that all storage quantities are used by the end of the spraying season. The Parish pesticide/herbicide storage facilities are operated in accordance with the Louisiana Department of Agriculture and Forestry regulations. Empty containers are triple rinsed and properly disposed of as recommended by the manufacturer. Rinsate is placed in the spray tank at the time of mixing to be applied at the next location being sprayed.

SECTION 4
PERSONNEL TRAINING AND CERTIFICATION

4.1 PERSONNEL TRAINING AND CERTIFICATION

The City landscape architect supervises the chemical application participates in the State of Louisiana Department of Agriculture and Forestry's program for certifying pesticide and herbicide applicators. The Department of Agriculture and Forestry requires that commercial pesticide and herbicide applicators be certified prior to engaging in pesticide or herbicide activities. This certification course, provided annually by the Department of Agriculture and Forestry, includes a general application class and a specific training class for the particular pesticide or herbicide application being certified as well as training in the safe and proper handling, storage and disposal of these chemicals.

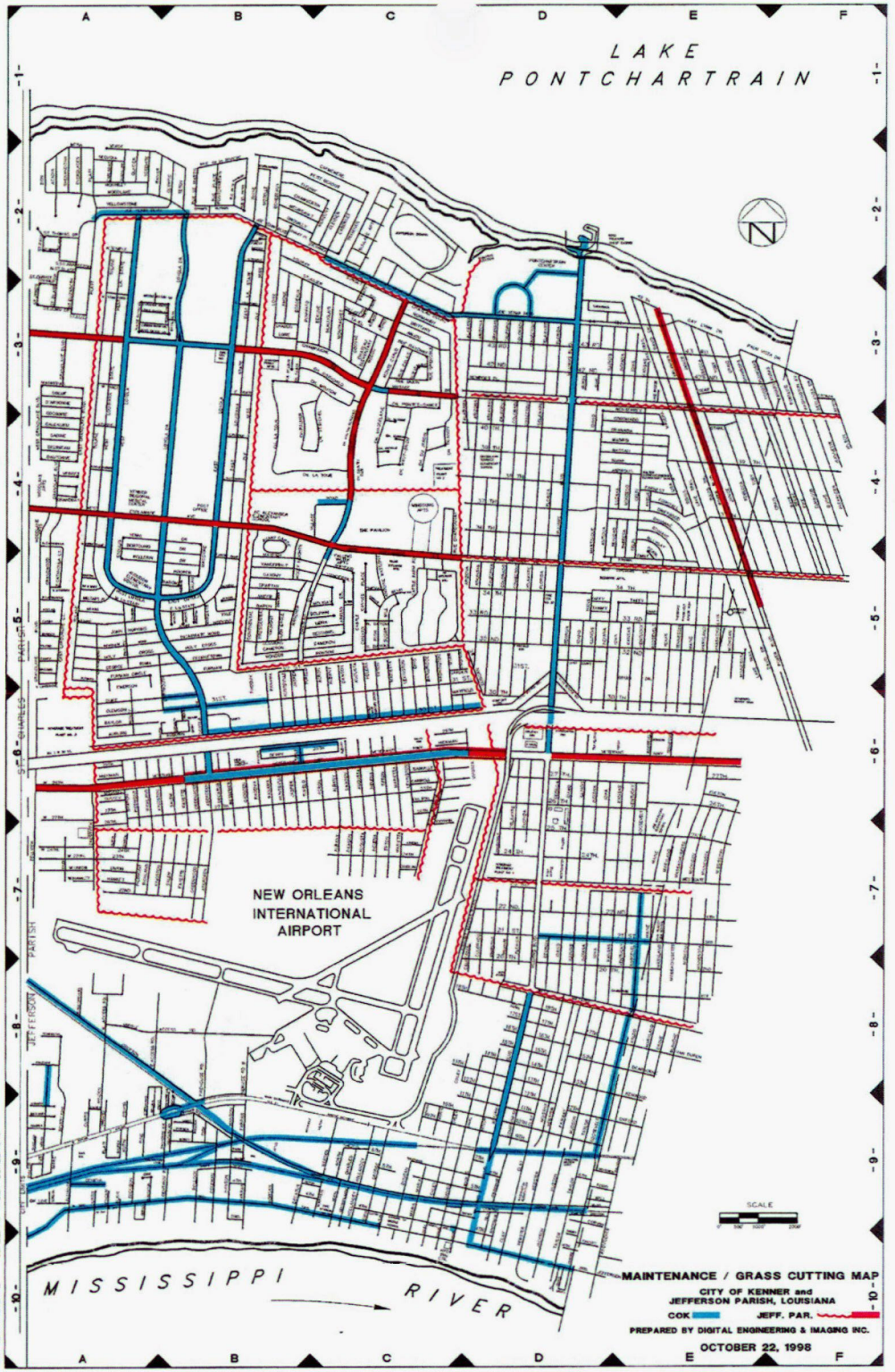
After successfully completing the training class and passing the examinations administered at the end of the training, the applicant is issued a license and certification card appropriate to the training received.

4.2 EXPIRATION AND RENEWAL OF LICENSES

The license is valid for three years from the date of testing for the category certified. An annual fee is paid by the license holder to maintain a valid license. In addition, a refresher-training course must be attended every three years to renew the license. If these requirements are not met, the applicator or inspector will lose his certification and must repeat the training and examination process.

APPENDIX A

PESTICIDE, HERBICIDE, AND FERTILIZER APPLICATION AREA MAP


LAKE
PONTCHARTRAIN
NEW ORLEANS
INTERNATIONAL
AIRPORT
MISSISSIPPI
RIVER
JEFFERSON PARISH
ST. CHARLES PARISH
SCALE
MAINTENANCE / GRASS CUTTING MAP
CITY OF KENNER and
JEFFERSON PARISH, LOUISIANA
COK
JEFF. PAR.
PREPARED BY DIGITAL ENGINEERING & IMAGING INC.
OCTOBER 22, 1998
10/22/98 PLOT SCALE: 1=1

APPENDIX B

PESTICIDE APPLICATION INSPECTION REPORT FORM

Pesticide Application Inspection Report

Date: _____

Time: _____

Announced: [ ] Unannounced: [ ]

Company Name: _____

Address
Location
_____
_____
_____

Address
Mailing:
_____
_____
_____

Phone: _____

Hand Applicator: (It may be necessary to complete both sections)

Applicator's Name, Title, Certification Number, and Date of Expiration:

_____
_____

Inspection conducted by staffmember(s): _____
_____
_____

Area Sprayed:
Roadside: [ ] Median Strip: [ ] Drainage Ditch: [ ]

Were chemicals being used mixed on site? Yes [ ] No [ ]
If no, indicated where chemicals were mixed: _____
_____
_____
_____

If yes, ask the following question:
Did the applicator use the City's water supply such as a fire hydrant?
Yes [ ] No [ ] N/A [ ]
If no, explain the source of the water. _____
_____
_____
_____

If the applicator is using or used a fire hydrant, did the Connection have a back flow preventor? (Note, if the inspector is present while chemical are being mixed, the inspector should note the position of the hose in relation to the lip on the tank or container. If the hose is in the chemical, this will cause a back flow of chemical(s) which will contaminate the water supply). Yes [ ] No [ ] N/A [ ]

What chemicals did the applicator mix? _____

_____

How much is being mixed or was mixed? Water _____ gallons
Chemical _____ gallons

Does the applicator have a copy of the label or MSD sheet(s) for each chemical mixed or being transported on the vehicle? Yes [ ] No [ ]

Is the applicator(s) wearing the protective clothing prescribed by the label?
Yes [ ] No [ ]
Describe the applicator(s) protective clothing: _____

_____

_____

_____

Are safety lights on the vehicle(s) working? Yes [ ] No [ ]
Comments or suggestions? _____

_____

_____

Rig Applicator

Applicator's Name, Title, Certification Number, and Expiration Date:

_____

_____

Inspector: _____

Area Sprayed:
Roadside: [ ] Median Strip: [ ] Drainage Ditch: [ ]

Boundaries: _____

Name of. Drainage Ditch: _____

Were chemicals being used mixed on site? Yes [ ] No [ ]
If no. indicate where chemicals were mixed: _____

_____

_____

_____

If yes, ask the following question:
Did the applicator use the City's water supply such as a fire hydrant?
Yes [ ] No [ ] N/A [ ]
If no, explain the source of the water._____

_____

_____

_____

If the applicator is using or used a fire hydrant, did the connection have a back flow preventor? (Note, if the inspector is present while chemicals are being mixed, the inspector should note the position of the hose in relation to the lip of the tank or container. If the hose is in the chemical, this will cause a back flow of chemicals which will contaminate the water supply). Yes [ ] No [ ] N/A [ ]

What chemicals did the applicator mix?

_____

_____

Chemical name:

_____

How much is being mixed or was mixed? Water _____ gallons
Chemical _____ gallons

Does the applicator have a copy of the label or MSDS sheet for each chemical mixed or being transported on the vehicle? Yes [ ] No [ ]

Is the applicator(s) wearing the protective clothing prescribed by the label?
Yes [ ] No [ ]
Describe the applicator(s) protective clothing: _____

_____

_____

_____

Are the safety lights on the vehicle(s) working? Yes [ ] No [ ]
Comments or suggestions: _____

_____

_____

Are there any leaks in the hose(s) or from the valves(s)? (Applies to hand applicators)

Yes [ ] No [ ]

Rig Applicator:

Ask the applicator to turn in the pump so that the system is pressurized, so that pressure gauges can be checked. The gauge is usually located on the front of the truck.

Are the pressure gauges working? Yes [ ] No [ ]

Comments or suggestions:

_____

_____

_____

Are all hoses, fittings and valves free of leaks or cracks? Yes [ ] No [ ]

Comments or suggestions: _____

_____

_____

Does the company have a SPCC plan? Yes [ ] No [ ]

Comments or suggestions: _____

_____

_____

Is there a spill clean-up kit on the vehicle? Yes [ ] No [ ]

Comments or suggestions: _____

_____

_____

Report Completed by: _____

Report Reviewed by: _____

APPENDIX F

ALLOWABLE NON-STORM WATER DISCHARGES

CITY OF KENNER
MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT
LAS000201

Prepared by
THE CITY OF KENNER

JUNE 2016

IMPLEMENTATION AND AUGMENTATION OF THE STORM WATER MANAGEMENT PROGRAM FOR JEFFERSON PARISH NPDES MS4 PERMIT

ALLOWABLE NON-STORM WATER DISCHARGES

The Jefferson Parish Municipal Separate Storm Sewer System (MS4) permit issued by the USEPA on March 1, 1997, requires that each permittee "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 Storm Sewer System."

Table III.A. of the permit requires that Jefferson Parish and the Cities of Gretna, Harahan, Kenner, and Westwego, "Submit a list of non-storm water discharges categories exempt from the prohibition on non-storm water discharges to the MS4, along with any limitation on these discharges, and reasons for determinations."

The permit (Part III.A.6) requires that non-storm water discharges to the MS4 shall be effectively prohibited by the permittees. However, certain discharges need not be addressed as illicit discharges by the permittee nor prohibited from entering the MS4 for the purposes of this permit. These discharges include: "discharges regulated by a separate NPDES permit; discharges for which an NPDES permit application has been submitted; and non-storm water discharges identified by the permittee as specified in item a below.

a. Permittees shall identify in the Storm Water Management Program any categories of non-storm water that are not prohibited from being discharged in the Municipal Separate Storm Sewer System, in accordance with conditions described in items (1) and (2) below:

   (1) Categories of non-storm water discharges that the permittee(s) may exempt from the prohibition on non-storm water entering the Municipal Storm Sewer System include those either:

      (a) Listed in 40 CFR 122.26 (d) (2) (iv) (B) (1); or

      (b) Other similar occasional incidental non-storm water discharges (e.g. non-commercial or charity car washes).

   (2) Categories of non-storm water discharges exempted from the prohibition on non-storm water 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:

      (a) The nature of the discharges; or

      (b) Conditions placed on the discharges by the permittees.

The Storm Water Management Program shall describe any local controls or conditions placed on the discharges exempted from the prohibition on non-storm water. Permittees shall prohibit any individual non-storm water discharge otherwise exempted under this paragraph from the prohibition on non-storm water that is determined to be contributing significant amounts of pollutants to the Municipal Separate Storm Sewer System."

Jefferson Parish Drainage Disposal Law (Section 27-157 through 27-165 of the Jefferson Parish Code) defines categories of discharges which are allowed or excluded from the MS4. The requirements of the Drainage Disposal Law, both qualitative and quantitative, supersede any allowance for non-storm water discharges cited herein. For example, discharges resulting from the cleaning of a commercial building are allowed, as long as foaming or frothing agents of a persistent nature are not discharged in sufficient concentrations as to create foaming or frothing in the storm drainage system. In addition, no discharge is permitted in violation of an existing NPDES, LPDES, or LWDPS permit irrespective of any allowances cited herein or deemed acceptable under the Drainage Disposal Law.

These requirements are in addition to and supersede the conditions included in the following table. The following table included with this technical memorandum provides the non-storm water discharge categories defined by the permittees to be exempt from the prohibition on non-storm water discharges as required by the permit.

LIST OF NON-STORM WATER DISCHARGE CATEGORIES EXEMPT FROM PROHIBITION OF NON-STORM WATER DISCHARGES TO THE MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) OF JEFFERSON PARISH, LA

Category	Conditions	Reasons for Determination
Discharge of potable water from operation and maintenance of the municipal water treatment and supply system (i.e., distribution system flushing, storage tank flushing, etc.)	None	Consists of the discharge of treated potable water
Runoff from Industrial/Commercial Lawn Care	Does not include runoff from areas where chemicals and/or equipment are stored.	Consists of the discharge of water applied to landscaped areas around commercial or industrial buildings. Lawn care stewardship practices (fertilizer, herbicide. and pesticide use) will be promoted through the public educational program. State regulations currently exist which govern the legal application of these products.
Runoff from large managed turf areas such as municipal or commercial golf courses, parks and cemeteries	Should fertilizer, pesticides or herbicides become a problem in the MS4, Jefferson Parish reserves the right to require a permit for the discharge of water from these areas.	Consists of discharge of water applied for irrigation. Lawn care stewardship practices (fertilizer, herbicide and pesticide use) will be promoted through the public education program. State regulations currently exist which govern the legal application of these products.
Groundwater discharges to canals from water table	None	Consists of the discharge of uncontaminated groundwater from naturally occurring processes
Groundwater and accumulated rain water discharges from construction de-watering	The discharge must be in accordance with appropriate Best Management Practices	Consists of the discharge of uncontaminated pumped groundwater and accumulated rain water.
Runoff from residential home and car washing	Non-commercial	Consists of the discharge of treated water with some chemicals (soaps, etc.) which is considered to have negligible water quality effects due to the low volume, low intermittent nature of the discharge. Home stewardship practices will be promoted through the public education program.

Category	Conditions	Reasons for Determination
Runoff from industrial or commercial building or parking lot washing	None	Consists of the discharge of treated water with some chemicals (soaps, etc.) which is considered to have negligible water quality effects due to the low volume, intermittent nature of the discharge. Appropriate use of commercial cleaners will be promoted through the public education program.
Charity car wash events	None	Intermittent, low volume has negligible effect on MS4. Appropriate use of cleaners will be promoted through the public education program.
Groundwater discharges from foundation drain or sump pumps	None	Consists of the discharge of uncontaminated groundwater and rain water.
Condensation from exterior central air conditioning systems	None	No contact with sources of contamination
Discharge from drainage and maintenance of swimming pools	None	Consists of the discharge of water, intermittent in nature and negligible in quantity. Due to the nature of the MS4, i.e. large open conveyance canals, chlorinated discharges are not significant sources of pollutants.
Wash water form street sweeping and cleaning	Incidental wash water from mechanical street sweepers	Consists of discharge water in minimal amounts. Incidental and intermittent in nature.
Discharges from Fire Prevention and Control	None	Public safety. Discharge consists of potable water and approved firefighting chemicals. Intermittent and low volume in nature, therefore considered to have negligible impact on water quality.

APPENDIX G

JEFFERSON PARISH
LOUISIANA
DEPARTMENT OF ENVIRONMENTAL AFFAIRS

TIM P. COULON
PARISH PRESIDENT

MARNIE WINTER
DIRECTOR

January 31, 2003

Ms. Linda Korn Levy, Assistant Secretary
Office of Environmental Services
Louisiana Department of Environmental Quality
P.O. Box 82135
Baton Rouge, LA 70884-2135

Re: Submittal of the Jefferson Parish, Louisiana Household Hazardous Waste Program
Permit No. LAS000201, AI #95365

Dear Ms. Levy:

Under cover of this letter, we submit the Jefferson Parish, Louisiana, Household Hazardous Waste Program in compliance with the permit requirements of Part II.A.6.d. This program is being submitted to you in compliance with our extended deadline of February 1, 2003, per our letter to Michael Vince dated October 23, 2002.

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.

If you have any questions or need further information, please contact me at 736-6440.

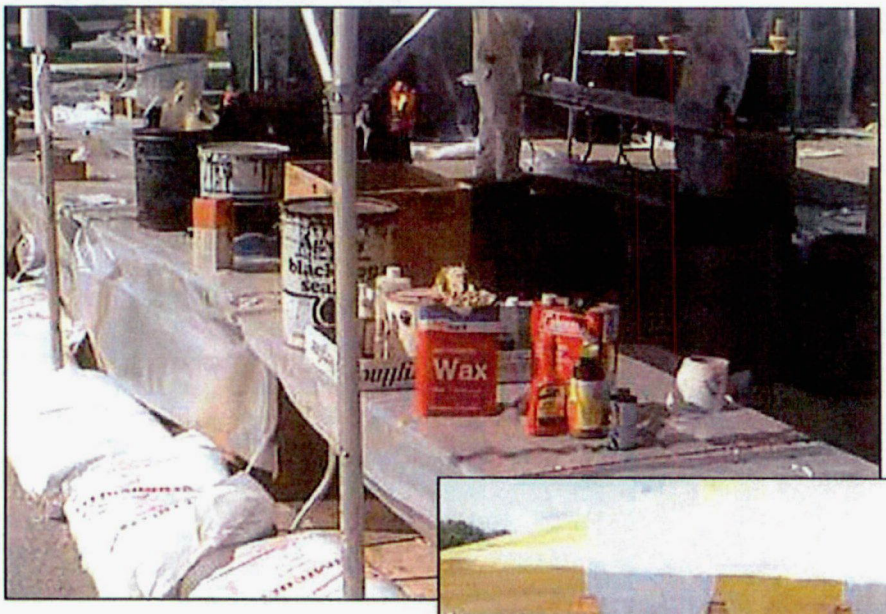
Sincerely,

Marnie Winter

Marnie Winter, Director
Department of Environmental Affairs

Attachment

cc: Hon. Tim Coulon, Parish President
Mr. Deano Bonano, Deputy CAA, Operations
Hon. Paul Johnston, City of Harahan
Hon. Louis Congemi, City of Kenner
Hon. Ronnie Harris, City of Gretna
Hon. Robert Billiot, City of Westwego
Ms. Darlene Bernard, LDEQ
Ms. Thea Lomax, USEPA





NPDES Municipal Separate Storm Sewer System (MS4)
Discharge Permit, Jefferson Parish, Louisiana

Household Hazardous Waste Program

February
2003

Household Hazardous Waste Program

1.1 Purpose

The purpose of this program is to meet the requirements of Part II.A.6.d of Jefferson Parish's Municipal Separate Storm Sewer System (MS4) permit issued by the United States Environmental Protection Agency (USEPA) Region VI. This permit has been created by the USEPA under the National Pollutant Discharge Elimination System (NPDES) to address the water quality issues associated with the storm water runoff from the drainage areas included in the MS4 permit.

In Part II.A.6.d of the permit, Jefferson Parish is charged with the development of a program to meet the following goals:

1. Prohibit the discharge or disposal of used motor vehicle fluids and household hazardous wastes; and the intentional disposal of collected quantities of grass clippings, leaf litter, and animal wastes into separate storm sewers.
2. Facilitate the proper disposal or recycling of used motor vehicle fluids (at a minimum, oil and antifreeze) and toxics from households (including paint, solvents, pesticides, herbicides, and other hazardous materials).

Such programs shall be readily available to all private residents and shall be publicized and promoted on a regular basis.

1.2 Existing Regulations

Jefferson Parish has in place several laws prohibiting the discharge into the storm drainage system of several of the items cited in numbers 1. and 2. of Part 1.1 above.

Section 7-28 of the Jefferson Parish Code of Ordinances (attached) requires the owner of an animal to clean up and dispose of in a sanitary manner, all excreta from their animal whether on private or public property.

Section 16-10 (attached) of the Jefferson Parish Code of Ordinances makes it unlawful for any person to dump, throw, place or otherwise dispose of cut grass, weeds, trees or tree limbs, trash, garbage, or other debris in any drainage ditch, canal or drainage catch basin or pedestrian walkway in Jefferson Parish. It also makes it unlawful for any person to dump, throw, place or otherwise dispose of cut grass, weeds, trees or tree limbs, trash, garbage or other debris on any public street, right-of-way or pedestrian walkway in Jefferson Parish by the use of a leaf blower, rake, broom or any other means unless the debris is thereafter removed from the street and containerized for composting or proper removal and disposal.

Section 16-10.2 of the Jefferson Parish Code of Ordinances (attached) prohibits the dumping of trash, debris, greases and oils, such as but not limited to cooking oil and fats, motor oil antifreeze, solvents, truck and automotive fluids, paint, paint thinners, and gasoline into catch basins, drainage culverts, lines canals or any body of water. There are fines of up to $5,000 for dumping any of these materials into the MS4.

Section 27-159(d)(3) of the Jefferson Parish Code of Ordinances states that "it shall be unlawful to discharge any waste materials directly into manholes, storm drains, cleanouts or sampling ports without the express written consent of the director."

Section 27-161 of the Jefferson Parish Code of Ordinances gives specific prohibitions and limitations of discharges into storm drainage system, which include:

Section 27-161 (b)(2) Any waste which constitutes a hazard to human or animal life in the storm drainage system or the stream or watercourse receiving the discharge from the storm drainage system.

Section 27-161(c)(1)	Oils and grease
27-161(c)(2)	Flammable mixtures
27-161(c)(3)	Noxious materials
27-161(c)(4)	Radioactive wastes
27-161(c)(5)	Solid or viscous waste
27-161(c)(6)	Toxic substances
27-161(c)(13)	Heavy metals

1.3 Existing Programs

1.3.1 Solid Waste Collection

To facilitate the proper disposal of the aforementioned solid wastes, Jefferson Parish collects grass and shrub clippings, leaf litter and animal wastes curbside as part of their twice weekly garbage collection. Additionally, they operate four (4) Citizen Trash Drop-off Sites that collect these wastes, along with other municipal solid waste.

1.3.2 Jefferson Parish Curbside Recycling Program

Jefferson's recycling program is one of the largest residential curbside recycling programs in the New Orleans metropolitan area. It was initiated in 1991 as a voluntary pilot project in East Jefferson and parish-wide implementation was completed in two years. Jefferson, through the use of a contracted recyclable hauler, offers once a week curbside collection. Approximately 918 tons of recyclables are collected each month. Recycling Trucks have two compartments in which to place separate recyclable materials. The following items are collected: aluminum and tin cans, glass food and beverage containers, newspaper, telephone books, catalogs & magazines, corrugated cardboard and #1 & #2 plastics.

1.3.3 Drop-off Recycle Sites for Waste Automotive Fluids, Tires, Batteries and Yard Waste

To facilitate the proper disposal and recycling of used motor vehicle fluids, Jefferson Parish operates drop-off recycling sites at two (2) trash drop-off sites, one on each side of the Mississippi River. These recycling sites, which have been in operation since the early 1990s, allow residents to drop-off used motor oil, antifreeze, gasoline, waste tires and automotive batteries for recycling. Residents of the Parish are allowed to dispose of up to five (5) gallons per day of used oil and antifreeze and two (2) gallons per day of gasoline. We have applied for a

$5,000 ABOP (Antifreeze, Batteries, Oil and Paint) grant from the Louisiana Department of Environmental Quality to add paint collection to our HHW program. These drop-off sites are available to all citizens of Jefferson Parish, including the municipalities. They operate during daylight hours, eight and one-half hours per day, six (6) days per week, Tuesday through Sunday. Availability of these sites is promoted regularly in newspaper ads, mail-outs, water bill inserts, and presentations to civic and business associations, schools, scout groups, etc. Residents may also drop-off non-hazardous solid waste, such as cut grass, tree limbs, white goods, etc. at these trash drop-off sites.

Jefferson Parish sponsors and publicizes its used motor oil, antifreeze, and gasoline recycling program. They also make available to the public information regarding the proper identification and disposal of other household hazardous wastes. This includes, but is not limited to, information brochures developed by Jefferson Parish or obtained from others that are distributed via utility bills, public service announcements or curbside recycling bins. The Department of Environmental Affairs participates in local fairs and festivals, during which these materials are distributed. They also give presentations on their programs to school and scout groups and civic organizations.

1.3.4 Educational Storm Drain Markers and Doorhangers

The Jefferson Parish Department of Environmental Affairs has a program wherein volunteers (scouts, civic organizations, schools, etc.) apply polyurethane markers to storm drain inlets and catch basins that warn citizens to "No Dumping Flows to Lake Pontchartrain" on the East Bank of the Parish and "No Dumping Flows to Coastal Wetlands" on the Westbank of the Parish. Both markers warn of a potential fine of up to $5,000 and include the telephone number of the Department of Environmental Affairs to report any suspicious dumping activities. A copy of these markers is attached.

This program reminds citizens that it is illegal to dispose of any materials in the storm sewer system, including HHW, grass clippings, leaves, pet wastes, etc.

In concert with the storm drain markers, we are augmenting this public awareness campaign by distributing educational doorhangers in the same neighborhoods where markers are being applied. The doorhangers instruct citizens on the proper disposal of wastes, provide alternatives to waste disposal and educate them on the consequences of improper disposal.

1.3.5 Residential Reuse, Recycle and Disposal Guide

To facilitate the disposal and/or recycling of household hazardous wastes, the Department of Environmental Affairs periodically publishes and distributes a *Residential Reuse, Recycle and Disposal Guide* (copy attached). This guide advises residents on the proper use and disposal of HHW and provides a listing of outlets for the proper disposal, reuse and recycling of HHW and other household recyclables. The HHW that the guide addresses include expired medications, nickel-cadmium batteries, used syringes, air conditioners and refrigerators, latex paint, oil-based paints and solvents, gasoline and diesel fuel, used motor oil and antifreeze, car and truck batteries, computer components and monitors, fluorescent lamps, mercury, and pesticides. This guide is distributed via by placement of one in every curbside recycling bin, mail-outs and presentations to civic, business school, and scout groups, and mail-outs in response to telephone

requests for the guide. The guides are available to all Jefferson Parish residents, including municipalities.

Disposal outlets included in the guide are the Parish's two (2) Drop-off Recycling Sites and local recyclers such as the Green Project, a local organization that accepts latex paint, unopened oil paint, stains, pant thinner, unopened caulk and paint stripper. The Parish is represented on the Board of Directors of the organization, which recycles paint and sells it inexpensively.

Jefferson Parish has the *Residential Reuse, Recycle and Disposal Guide* available on its website. This facilitates disposal options being more readily accessible to the general public. Currently, inquiries regarding the disposal/recycling of HHW are directed to the Department of Environmental Affairs. Depending on the particular waste, citizens are either informed of procedures necessary for approved disposal in the municipal garbage, the locations of available drop-off sites, or given contact information for those businesses known to receive such waste.

1.3.6 Nonpoint Source Pollution and Solutions Poster/Essay Contest

Beginning with the 1998-1999 school year, the Department of Environmental Affairs has sponsored an annual Nonpoint Source Pollution and Solutions Poster/Essay contest for students in the 3rd through 8th grades in all schools in Jefferson Parish. Students in Grades 3 through 5 submit a poster and students in Grades 6 through 8 submit an essay illustrating at least one source of nonpoint source pollution and how to prevent it. The goal of the contest is to educate the students, and their parents, on the importance of keeping household hazardous wastes, and other wastes, out of the storm drainage system. Much emphasis is placed on the importance of keeping waste oil, paint, pesticides and other chemicals out of the storm drainage system. Many local businesses sponsor the contest by providing funding for cash prizes and to subsidize awards and the awards banquet. The Awards Banquet features presentations to students, parents and faculty by representatives of the Louisiana Department of Environmental Quality, Louisiana Department of Natural Resources Coastal Management Division, Lake Pontchartrain Basin Foundation, and the Barataria Terrebonne Estuary Program on each agency's role in preventing nonpoint source pollution. The winning posters and essays are displayed in two (2) local malls, one on the East Bank and one on the Westbank, on a weekend close to Earth Day.

1.4 Collection Events

In 1995, Jefferson Parish held a collection event for all HHW. Local emergency response companies and volunteers operated the event and various disposal companies (Safety Kleen, International Petroleum) accepted and disposed of the materials collected.

In 1996, Jefferson Parish, in conjunction with the Louisiana Department of Agriculture and Forestry, sponsored a collection event for pesticides.

Jefferson Parish realizes the need for periodic HHW collection events. The cost of a household hazardous waste event for a parish the size of Jefferson is estimated to range anywhere from $160,000 to $450,000, depending on several variables such as the types of materials accepted, volunteer availability, site availability, participation rates, etc. Jefferson Parish is working towards identifying corporate sponsors for funding a collection event. We have applied for a federal Section 319 grant, in conjunction with the City of New Orleans, to fund a regional

collection event. Events will be held when sponsors or funding can be identified to defray the costs of the events.

All past HHW collection events have been for all residents of Jefferson Parish, including the municipalities. It is anticipated that any future events would also include residents from the municipalities.

(c) *Multiple occupancy building or yard.* It shall be unlawful for the owner or keeper of any dog to allow such dog to be at large in any multiple occupancy building or yard thereof occupied by two (2) or more families.

(d) *School grounds.* Owners shall not permit their dogs on any school ground when school is in session, or in any public recreation area when an organized activity is being conducted, unless the dog is controlled by a leash or similar device to prevent the dog from biting any person or animal.
(Code 1961, § 4-17(b), (c), (f), (g))

Sec. 7-22. Enticing animals off premises of owner or keeper prohibited.

It shall be unlawful for any person to release or entice any animal secured by the owner or keeper within his yard outside of the premises of such keeper or owner.
(Code 1961, § 4-16(a))

Sec. 7-23. Confinement of dogs and cats in heat.

Every female dog or cat in heat shall be confined so that the animal cannot come into contact with an unneutered male, except for planned breeding.
(Code 1961, § 4-17(i))

Sec. 7-24. Reserved.

Editor's note—Section 7.24, establishing regulations for the confinement and treatment of vicious animals, derived from Code 1961, § 4-16(f), was repealed by § VI of Ord. No. 17369, adopted Nov. 4, 1987.

Sec. 7-25. Keeping of exotic animals.

(a) No person shall keep any wild or exotic species of land animals, reptiles, or birds, warm or cold blooded that falls under Class I designated by the Jefferson Parish Animal Shelter's "Rules for Wild or Exotic Animals." A permit costing one hundred dollars ($100.00) must be obtained from the department of animal and pest control for all Class II species. Application procedures and requirement for such permit shall be in accordance with rules and regulations promulgated by the animal shelter advisory board until after it is determined, by inspection or otherwise, whether the keeping of such animals or birds is in violation of any of the provisions of this article or will constitute a nuisance. Under no circumstances will the keeping of poisonous snakes be allowed other than in licensed zoos. All pet shops must obtain a fifty dollar ($50.00) permit for the possession of Class III animals in accordance with rules and regulations promulgated by the animal shelter advisory board.

(b) The animal shelter department may issue a temporary permit for the keeping, care and protection of an infant wild animal native to this area which has been deemed to be homeless until such time as it may be safely released or permit issued for its keeping by the department as provided by subsection (a).

(c) Subsection (a) shall not be construed to apply to zoological parks, performing animal exhibitions or circuses.
(Code 1961, § 4-16(g); Ord. No. 18642, § 1, 12-2-92; Ord. No. 20257, § 1, 1-14-98)

Sec. 7-26. Reserved.

Editor's note—Section 7-26, authorizing the restraint, muzzling, confinement or destruction of animals by the director of the animal shelter, was repealed by § VI of Ord. No. 17369, adopted Nov. 4, 1987. The section was derived from Code 1961, § 4-17(a), and Ord. No. 16588, § I, adopted Sept. 11, 1985.

Sec. 7-27. Animals in restaurants and other businesses.

Animals shall not be permitted in restaurants or other places serving food, establishments selling food or edible products, or in any place of business when prohibited by the owner of same. This provision shall not apply to professionally-trained guide dogs for the disabled.
(Code 1961, § 4-17(h); Ord. No. 20257, § 4, 1-14-98)

Sec. 7-28. Clean-up and disposal of excreta.

If any part of a public street or square or the private property of a person other than the owner or keeper of an animal shall be soiled by the excreta of such animal, whether such nuisance shall take place in the presence of the owner or

keeper or not, the owner or keeper shall promptly remove such excreta and dispose of it in a sanitary manner.
(Code 1961, § 4-17(j))

Sec. 7-29. Operating funds.

The parish council shall provide annually for the operation of the animal shelter department an amount from the ad valorem taxes for the health unit for that year.
(Code 1961, § 4-12(d); Ord. No. 20257, § 6, 1-14-98)

Sec. 7-30. Fees and charges.

(a) *Shelter redemption fees and charges for dogs and cats:* Redemption fees for dogs and cats shall be as follows:

(1)	Licensed dog or cat, wearing current tag:	
	a. Boarding fee per day ..	$5.00
	b. Redemption fee	10.00
(2)	Licensed dog or cat not wearing tag:	
	a. Boarding fee per day ..	5.00
	b. Redemption fee	15.00
(3)	Unlicensed dog or cat:	
	a. Boarding fee.....	5.00
	b. Redemption fee (including rabies vaccination)	20.00

(b) *Additional redemption fees for subsequent impoundments:*

(1)	The additional redemption fees for additional impoundments occurring within three hundred sixty-five (365) days of a previous impoundment, both licensed and unlicensed dogs and cats, shall be as follows:	
	a. Second impoundment .	50.00
	b. Third impoundment...	100.00
	c. Fourth and subsequent impoundment.....	500.00
(2)	If redemption is allowed, the additional redemption fees for subsequent impoundments of dangerous animals shall be as follows:	
	a. Second impoundment .	250.00
	b. Third impoundment...	500.00

All redemption fees are in addition to the following shelter charges if applicable for vaccination and licensing. The per day fee includes any portion of any day.

(c) *Other shelter charges:* Animal shelter charges are as follows:

(1)	Rabies vaccination.....	5.00
(2)	Adoption fees:	
	a. Dogs, cats, puppies and kittens	50.00
	Includes $30.00 refundable sterilization deposit. To be refunded if private veterinarian certifies that they have performed sterilization. If shelter performs procedure, deposit is not refunded.	
	b. Goats and pigs.....	25.00
	c. Equine species, plus direct costs.....	10.00
	d. Other small animals ..	2.00
(3)	Rabies observation.....	75.00
	a. Boarding fee, per day after required 10 day observation period	5.00
(4)	License and tag.....	2.00

(d) *Permit fees:* No permit as provided for in Division 5 of this article shall be issued until the applicable fee, as follows, has been paid to the animal shelter department. All permit fees are on an annual basis and must be renewed prior to January first of each year. A fee for an initial application for a period of less than a full year

evidence presented to the court or other adjudicating officer indicates that the person cited had committed the offense.

(2) Once it is established that dumped, left, thrown or deposited litter was possessed by a particular person, firm, or corporation immediately before the act of dumping, there shall be a rebuttable presumption that the possessor committed the act of dumping, leaving, or depositing. This presumption shall not apply if the alleged possessor of said litter has a copy of the solid waste transporting identification number issued by the state to a third party with whom the alleged possessor had a contract with said third party to dispose of said litter as well as a copy of said contract. Under said circumstances said third party contractor shall be found responsible for any illegal disposal of said litter unless local state or federal laws do not relieve the generator of such waste from the responsibility for the proper disposal of said waste.

(3) When litter that has been dumped, left, thrown or deposited in violation of this article is discovered to contain any item(s), including but not limited to letters, bills, publication, or other writings display the name of a person or in any other manner indicates the ownership of said article(s), it shall be a rebuttable presumption that such person violated this article.

(4) If the throwing, dumping, or depositing of litter was done from a motor vehicle, boat or conveyance, except a bus or large passenger vehicle or a school bus, all as defined in L.R.S. 32:1, it shall be prima facia evidence that the throwing, dumping or depositing was done by the driver of the conveyance. Likewise, once it is established that thrown, dumped, or deposited litter was possessed by a specific person, firm, or corporation, immediately before the act of throwing, dumping or depositing, there shall be a rebuttable presumption that the possessor committed the act of throwing, dumping or depositing.

(c) The provisions of this article shall not apply to uncontaminated permissible fill materials dumped or scattered on private property in accordance with the regulations of the state department of environmental quality and with the permission of the owner of said private property.

(d) The offender may be cited for the offense by means of a citation, ticket, summons or any other means provided by law, and thereby ordered to appear before the appropriate adjudication officer, including but not limited to a justice of the peace of the parish sitting in the justices of the peace litter court, a judge of a parish court or a judge of the Twenty-Fourth Judicial District Court. In the alternative, an offender may plead guilty to the violation and pay the appropriate fine and court costs by mail.

(e) This section shall be enforced exclusively by Jefferson Parish Constables, Jefferson Parish Sheriff's Deputies or state or federal enforcement officials.

(f) This article shall apply to the parish and particularly to its contractors. All parish contracts for grass or weed cutting shall provide that prior to cutting the grass or weeds, the contractor shall collect and dispose of litter on the premises to be cut.

(g) No person shall drive or move any truck or other vehicle within the parish, unless such vehicle is constructed or loaded as to prevent any load, contents or litter from being blown or deposited upon any street, alley or other public place. Nor shall any person drive or move any vehicle or truck within the parish, the wheels or tires of which carry onto or deposit, mud, dirt, sticky substances, litter or foreign matter of any kind on any street, alley, or other public place.

(h) All of the justices of the peace of Jefferson Parish shall have concurrent jurisdiction in the justices of the peace litter court over the litter violations under this article occurring anywhere in unincorporated areas of Jefferson Parish. In addition, any of the constables of the Parish of Jefferson may issue summons and serve subpoenas for violations of this article occurring anywhere in unincorporated areas of the parish. However, the penalty that may be imposed by a

justice of the peace for a litter violation which is also prohibited by R.S. 30:2531.2 shall be limited to the range of fines allowed by that state statute. Persons found guilty of a litter violation in the justice of the peace litter court for a litter violation shall have the right of direct appeal to the Twenty-Fourth Judicial District Court by trial de novo. The appeal must be filed within ten (10) days of the date of the judgment and notice of the appeal must be given within the ten (10) day period to the justice of the peace who adjudicated the matter, to the Twenty-Fourth Judicial District Court and to the Jefferson Parish district attorney. The appeal from a decision of the district court shall be the same as provided by law for appeals of civil matters adjudicated by a district court. If the judgment is sustained on appeal, the defendant may be assessed additional court costs by the district court as authorized by law.
(Ord. No. 21083, § 1, 9-20-00)

Sec. 16-10. Littering in drainage ditches and on public streets.

(a) It shall be unlawful for any person to dump, throw, place or otherwise dispose of cut grass, weeds, trees or tree limbs, trash, garbage or other debris in any drainage ditch, canal or drainage catch basin or pedestrian walkway in Jefferson Parish.

(b) It shall be unlawful for any person to dump, throw, place or otherwise dispose of cut grass, weeds, trees or tree limbs, trash, garbage or other debris on any public street, right-of-way or pedestrian walkway in Jefferson Parish by the use of a leaf blower, rake, broom or any other means, unless such debris is immediately thereafter removed from the street and containerized for composting or for proper removal and disposal in accordance with the provisions of Chapter 16 of the Code of Ordinances.
(Ord. No. 21083, § 1, 9-20-00)

Sec. 16-10.1. Littering waterways.

It shall be illegal to allow the abandonment of any sunken boat, barge, vehicle, boat trailer, skiff, any watercraft or shopping cart in any waterway, canal or body of water. This section may be enforced only by Jefferson Parish Constables, Jefferson Parish Sheriff's Deputies, state or federal enforcement officials.
(Ord. No. 21083, § 1, 9-20-00)

Sec. 16-10.2. Dumping in catch basins, etc.; special fine.

(a) The dumping of trash, debris, greases and oils, such as but not limited to cooking oil and fats, motor oil, antifreeze, solvents, truck and automotive fluids, paint, paint thinners, and gasoline into catch basins, drainage culverts, lines, canals or any body of water is prohibited. This prohibition shall not apply to any activity permitted or authorized by a state or federal program.

(b) The fine for violation of part (a) above shall be a fine, as provided in L.R.S. 33:1243B(2), not to exceed five thousand dollars ($5,000.00).

(c) This section may be enforced only by parish department of environmental affairs officers, or by state or federal enforcement officials.
(Ord. No. 21083, § 1, 9-20-00)

Sec. 16-10.5. Unauthorized use of bulk waste containers.

(a) It shall be unlawful for any person to dump, throw or place trees, trash, garbage, junk or debris in any bulk container or other trash receptacle belonging to another and lawfully installed pursuant to section 16-4, except by specific permission of the owner of the premises.

(b) It shall be unlawful for any person to scavenge or rummage the contents of a bulk container or other trash receptacle belonging to another except by specific permission of the owner of the premises.

(c) This section may be enforced only by parish department of inspection and code enforcement officers.
(Ord. No. 21083, § 1, 9-20-00)

Sec. 16-11. Disposal by burning prohibited.

(a) No person shall kindle or set fire to any combustible material upon any public or private premises for the purpose of disposing of solid

Effluent: Wastewater discharged into the public sanitary sewerage system, the public storm drainage system, or any other receiving stream.

Effluent Limitation: A restriction or limitation on discharges of pollutants established by EPA under the Clean Water Act, as amended, and/or any other state regulations or law.

EPA: The United States Environmental Protection Agency.

Halogen: That class of inorganic chemicals which includes fluorine, chlorine, bromine and iodine.

Industrial Discharger: Any person who discharges, or causes or permits to be discharged, any industrial waste.

Industrial Waste: Liquid wastes resulting from industrial, manufacturing, trade or business establishments as distinct from domestic wastes.

Industry: Any individual, partnership or corporation engaged in the manufacture, packaging, processing or handling of an item of commerce for resale purposes within the parish or any such establishment outside the limits of the parish, whose discharges flow into the parish.

LWDPS (Louisiana Water Discharge Permit System): The state program for issuing, conditioning and/or denying permits for the discharge of pollutants into the waters of the state pursuant to the Louisiana Environmental Quality Act (LRS 30:1051 et seq., as amended).

Nonchemically Treated Cooling Water: Any water used for the process of cooling machinery, equipment or devices of any kind and which has not been chemically altered by or for that process, such as but not limited to the addition of algicides, fungicides and/or corrosion inhibitors.

NPDES (National Pollutant Discharge Elimination System): The federal program for issuing, conditioning and/or denying permits for the discharge of pollutants from point sources pursuant to section 402 of the Clean Water Act.

Parish: The Parish of Jefferson, State of Louisiana.

Person: Any individual, his heirs, executors, administrators or assigns, and includes firms, partnership or corporation, its or their successors or assigns. Singular includes plural; male includes female.

pH: The logarithm of the reciprocal of the weight of hydrogen ions in grams per liter of solution.

Private Sewage Disposal System: Any privately owned or operated devices, facilities, structures, equipment or works used for the purpose of transmission, storage, treatment, recycling, and reclamation of industrial and domestic waste.

Public Sewer: A sewer in which all owners of abutting properties have equal rights, and is controlled by the parish.

Receiving Stream: Any bayou, canal, stream, river, pond, lake or estuary into which a liquid waste ultimately flows, irrespective of intervening treatment or conveyance processes.

Sanitary Sewage: Liquid wastes consisting of discharges from sinks, lavatories, water closets, bathtubs, washing machines, dishwashers and residential garbage grinders.

Sanitary Sewerage System: Any devices, facilities, structures, equipment or works owned or used by the parish for the purpose of transmission, storage and treatment of sanitary sewage and any other compatible industrial and domestic waste, including intercepting sewers, outfall sewers, sewage collection systems, pumping, power, and other equipment, and their appurtenances; extensions, improvements, remodeling, additions, and alterations thereof.

Sanitary Sewer: Any sewer designed to carry sanitary sewage or compatible industrial wastes or a combination of both, and to which storm water, surface water and groundwater are not intentionally admitted.

Sewage: Any combination of the water-carried wastes from residences, business buildings, institutions and industrial establishments, together with such groundwater, surface water and storm water as may be adventitiously present. Sewage includes domestic waste and acceptable industrial waste.

Sewage Treatment Plant: Any arrangement of devices and structures used for treating sewage.

Sewer: Any pipe or other conduit outside a building for conveying sewage.

Shall is mandatory; *May* is permissive.

Storm Drain: Any sewer or natural or manmade drainage channel which carries storm and surface waters and drainage, but excludes sewage and industrial wastes, other than unpolluted cooling water, etc.

Storm Drainage System: The system of pipes, canals, pumping stations and other equipment owned or operated by the parish or connected thereto, and designed to convey unpolluted water such as storm water, rainwater, surface water, groundwater and roof runoff to a legal point of disposal, but does not include the mains or other components of the sanitary sewerage system or a private or public sewage treatment or disposal plant.

Suspended Solids: Solids that float on the surface of or are in suspension in water, sewage or other liquids, and which are removable by laboratory filtering.

Threshold Odor Number: Ratio of dilution of the sample of wastewater with odor-free water at which odor is just detectable.

Unsanitary: Contrary to sanitary principles; injurious to health.

Wastewater: The liquid and water discharged from dwellings, commercial buildings, industrial facilities, and institutions, together with any groundwater, surface water, and storm water that may be adventitiously present.

Other Terms: Terms not otherwise defined herein shall be as adopted in the latest edition of Standard Methods for the Examination of Water and Wastewater, published by the American Public Health Association, the American Water Works Association and the Water Pollution Control Federation. (Ord. No. 17098, § 2, 12-3-86)

Sec. 27-159. Basic requirements.

(a) *Unlawful Discharge:* Except as in compliance with this division, the discharge of any wastewater into the storm drainage system by any person shall be unlawful.

(b) *Domestic Waste Discharges:*

(1) Except as provided in paragraph (2), all discharges of domestic waste shall be made into the public sanitary sewerage system.

(2) Where a public sanitary sewer is not within three hundred (300) feet of the property line of the discharger, domestic waste shall be discharged either to a private sewage disposal system complying with the provisions of section 27-160 or to the sanitary sewerage system at the option of the discharger.

(c) *Industrial Waste Dischargers:* Discharges of industrial wastes shall be made to the sanitary sewerage system, the storm drainage system, or, with special permission of the director, to a private disposal system.

(d) *Further Prohibitions and Limitations:*

(1) *Prohibited discharges on property:* It shall be unlawful for any person to place, deposit or permit to be deposited in any unsanitary manner on public or private property within the parish or in any area under the jurisdiction of the parish any human or animal excrement, garbage, or other commercial or industrial wastes or waste liquids.

(2) *Prohibited discharges in natural outlets:* It shall be unlawful to discharge to any natural outlet within the parish or in any area under the jurisdiction of the parish any sewage or other polluted waters, except where suitable treatment has been provided in accordance with subsequent provisions of this division.

(3) *Prohibited waste disposal:* It shall be unlawful to transport any waste materials from one site to another site and subsequently discharge such materials into the public storm drainage system without the express written authorization of the director. Further, it shall be unlawful to discharge any waste materials directly into manholes, storm drains, cleanouts or sampling ports without the express written consent of the director.

(4) *Privies, similar facilities prohibited:* Except as hereinafter provided, it shall be unlawful to construct or maintain any privy, privy vault,

septic tank, cesspool or other facility intended or used for the disposal of sewage.

(5) *Duty of property owner:* The owner of all houses, buildings or properties used for human occupancy, employment, recreation or other purposes, situated within the parish, is hereby required at his expense to install suitable sewage disposal facilities. Such facilities shall be connected to the public sewer in accordance with the provisions of this division, provided that the public sewer is within three hundred (300) feet of the property line, in accordance with state laws, (LRS 33:4041—4049). If there is no public sewer within three hundred (300) feet of the property line at the time the owner applies for his building permit, the owner shall install a private sewage disposal system. If a public sewerage line becomes available within three hundred (300) feet of the property line, the owner shall connect to said sewerage line according to the requirements of the department of public utilities.

(6) *Protection against accidental discharges:* Each industrial user shall provide protection from accidental discharge of prohibited materials or other wastes regulated by this division. Facilities to prevent accidental discharge of prohibited materials shall be provided and maintained at the owner's or operator's expense. Detailed plans showing facilities and operating procedures to provide this protection shall be submitted to the director for review, and shall be approved by him before construction of the facility. Review and approval of such plans and operating procedures shall not relieve the industrial user from the responsibility to modify his facility as necessary to meet the requirements of the division.

(e) *Permits Required:*

(1) No discharge of industrial waste shall be made except pursuant to and in compliance with a permit issued therefor by the director pursuant to section 27-162.

(2) No discharge of domestic waste shall be made into any private sewage disposal system except in accordance with a permit issued pursuant to section 27-162.

(f) *Report of Discharge Violations:* The director shall report to appropriate parish, state and federal agencies any violations detected regarding disposal of harmful and dangerous wastes into the parish sewerage and drainage system. (Ord. No. 17098, § 3, 12-3-86)

Sec. 27-160. Private disposal systems.

(a) *Regulated:* Where a sewer line is available within three hundred (300) feet of the property line, private disposal of industrial waste is prohibited unless the director determines that reasonable grounds exist for permitting private disposal.

(b) *Permit:* In those cases where private disposal of industrial waste is permitted by the director, applicable requirements of this section shall be included in the permit issued to the discharger pursuant to section 27-162.

(c) *Requirements Applicable to All Private Sewage Disposal Systems:*

(1) *Permit:* Before commencing construction of a private sewage disposal system, the owner or disposer or prospective disposer shall obtain a written construction permit signed by the director. The application for such permit shall be made on a form furnished by the director, which the applicant shall supplement with plans, specifications and any other information or documents deemed necessary by the director. If the wastewater to be discharged is industrial waste for which a discharge permit is required pursuant to section 27-162, the permit process shall be governed by section 27-162 except as may be expressly provided otherwise by this section.

(2) *Inspection; approval required:* A discharge permit for a private sewage disposal system shall not become effective until the installation is completed to the satisfaction of the director. Authorized personnel of the director shall be allowed to inspect the work at any stage of construction. The applicant for the permit shall notify the director in writing when the work

(4) Cause the storm drainage system to violate any applicable federal or state water quality standard.

(5) Violate any of the specific prohibitions or limitations established by subsection (c).

(c) *Specific Prohibitions and Limitations:* No person shall discharge or cause or permit to be discharged to the storm drainage system any wastewater which contains any of the following:

(1) *Oils and grease:* Oils in such concentrations as to create a sheen on the surface; more than five (5) pounds per day of wax, grease or oil at a concentration of more than thirty (30) mg/l if emulsified.

(2) *Flammable mixtures:* Any flammable liquid, solid or gas.

(3) *Noxious materials:* Noxious or malodorous solids, liquids or gases which, either singly or by interaction with other wastes, are capable of creating a public nuisance or hazard to life. In no event shall the threshold odor number of any industrial waste exceed a value of two (2), or the color (true color) of any industrial waste exceed fifty (50) color units.

(4) *Radioactive wastes:* Radioactive wastes or isotopes of such half-life or concentrations that they do not comply with regulations or orders issued by the appropriate authority having control over their use or which exceed the standards of the Louisiana Department of Environmental Quality, Nuclear Energy Division, or which will or may cause damage or hazards to the system, to personnel operating the system, or to receiving waters or the biota therein.

(5) *Solid or viscous wastes:* Solid or viscous wastes which will or may obstruct the flow or otherwise interfere with the proper operation of the storm drainage system.

(6) *Toxic substances:* Any substance at concentrations considered or found to be toxic to aquatic, human or animal life. In no event shall any wastewater discharged into the system contain any substance in such concentration as has been or is declared to be toxic by the EPA pursuant to section 307(a) of the Clean Water Act.

(7) *Incompatible wastes:* Any materials which form coatings on the sides or deposits on the bottoms of the drainage system; any other material harmful to or incompatible with the drainage system.

(8) *pH:* A pH of less than 5.5 or greater than 9.0.

(9) *Temperature:* A temperature greater than one hundred thirty-five (135) degrees Fahrenheit (fifty-seven (57) degrees Celsius).

(10) *Suspended and dissolved solids:* Total dissolved solids (TDS) at a concentration greater than five thousand (5,000) mg/l; total suspended solids (TSS) at a concentration greater than fifty (50) mg/l.

(11) *BOD and COD:* BOD at a concentration greater than thirty (30) mg/l; COD at a concentration greater than two hundred fifty (250) mg/l.

(12) *Dissolved oxygen:* A dissolved oxygen concentration less than one (1) mg/l.

(13) *Heavy metals:* Any of the following elements at concentrations greater than those indicated opposite the element:

Element	*mg/l*
Arsenic	0.05
Cadmium	0.02
Chromium	0.10
Copper	0.5
Iron	15.0
Lead	0.10
Mercury	0.001
Nickel	0.5
Silver	0.05
Tin	1.0
Zinc	2.0

(14) *Other elements and substances:*

a. Pathogenic bacteria or the indicator organisms of pathogenic bacteria in quantities greater than the densities pre-

USED OIL, ANTIFREEZE, & GASOLINE ACCEPTED AT TRASH DROP-OFF SITES



Jefferson Parish Residents may dispose of limited amounts of used motor oil, antifreeze and Gasoline at the following sites:

6250 Lapalco Blvd., Marrero

912 David Drive, Metairie

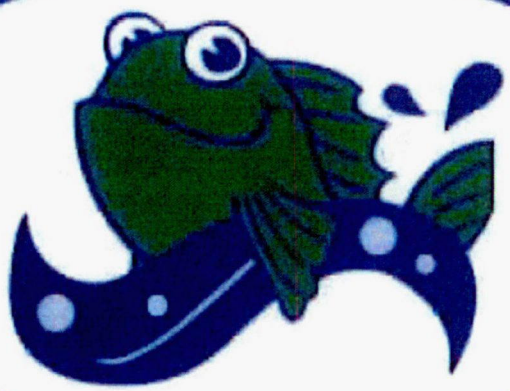
Tuesday-Sunday 9:00 a.m. to 5:30 p.m.
Daylight Savings Hours 10:00 am to 6:30 p.m.

Residents are limited to 5 gallons of used oil or antifreeze per week. We also accept small quantities of gasoline (2 gallons maximum) from residents. Gasoline should be placed in the used antifreeze container. *All residents using the trash drop off sites must show proof of parish residency in the form of a valid drivers license.*

State of Louisiana
Jefferson Parish

PN# JP-LP

NO DUMPING
UP TO $5,000 FINE

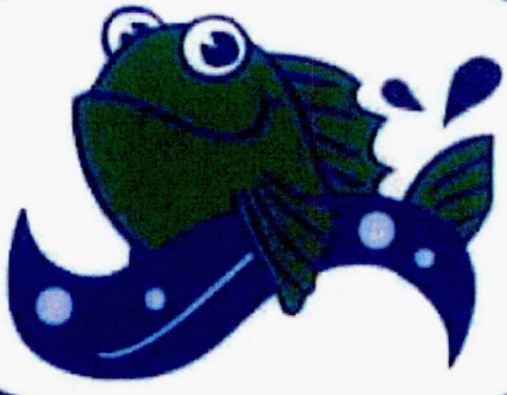


TO REPORT ANY SUSPICIOUS DUMPING ACTIVITIES, CALL 736-6440.

Flows To Lake Pontchartrain

PN# JP-CW

NO DUMPING
UP TO $5,000 FINE



TO REPORT ANY SUSPICIOUS DUMPING ACTIVITIES, CALL 736-6440.

Flows To Coastal Wetlands

NONPOINT SOURCE POLLUTION AND SOLUTIONS

POSTER CONTEST

Who can participate? All Jefferson Parish public, private and parochial school students in grades 3-5 may participate. The contest is set up as follows:

Competition	Grades
Poster Contest	**3, 4 and 5**

What are the prizes? Prizes will be awarded for 1st, 2nd and 3rd places in each grade level, Parish-wide.

1st Prize	**$100**
2nd & 3rd Prizes	**to be determined**

What are the details? Only one entry per child, please. Each entry should have the applicant's **Name, School and Grade** level clearly written on the back in the upper left corner, no larger than a (3" x 5") index card.

Requirements are as follows:

Topic:	**Nonpoint Source Storm Water Pollution and Solutions** It is anticipated that entries will depict or describe at least one source of nonpoint source pollution along with an appropriate solution.
Posters:	**Standard size** poster board (24" x 36"), white
Deadline:	**Must submit no later than** January 14, 2003
Where to Submit Entries:	Jefferson Parish Environmental Department 4901 Jefferson Highway, Suite E Jefferson, Louisiana 70123
For More Information on Non-Point Source Pollution	- Jefferson Parish Environmental: (504)736-4612 Storm Water Section or **http://www.jeffparish.net/departments/d-envi.html** - Louisiana Dept. of Environmental Quality: (225)765-0634 or **http://www.deq.state.la.us/assistance/educate/liquid5.htm** - U.S. Environmental Protection Agency: (1-800-887-6063) or **http://www.epa.gov/owow/nps**

Who is organizing this contest? Jefferson Parish, the Cities of Gretna, Harahan, Kenner & Westwego, & the state of Louisiana through the Louisiana Department of Transportation & Development are organizing this contest as a means of increasing public awareness of the issues related to municipal storm water pollution. These agencies are co-permittees to a Municipal Separate Storm Sewer System (MS4) permit issued by the US Environmental Protection Agency which requires that public awareness be increased as a means of pollution prevention.

Jeff collects old paint to cut hazardous waste

West Bank bureau

Jefferson Parish will collect household paint Saturday to reduce the amount of hazardous materials being dumped into landfills.

Residents may drop off liquid latex and oil-based paints and paint thinners from 9 a.m. to 3 p.m. in the north parking lot of the Yenni Building, 1221 Elmwood Park Blvd., Harahan.

"This is a first for Jefferson Parish," said Marnie Winter, the parish's environmental director. "This program will allow us to start reducing the largest component of our household hazardous waste stream: paint."

The move is an effort to cut the amount of hazardous waste being thrown out with residential garbage, Winter said.

All paint must be taken to the disposal site in original, labeled containers. Residents are asked not to mix paint.

The collection drive is for household paint only. Those attempting to drop off paint from businesses will be turned away.

Residents may dispose of empty paint cans and dried paint with their regular garbage.

All useable paint will be given to the Mid-City Green Paint Exchange Project, a non-profit group that recycles latex paint.

The event is sponsored by Jefferson Parish, the state Department of Environmental Quality and Safety Kleen Corp., which will recycle the paint.

What Goes in the Bin?

Aluminum and tin cans
- rinse all containers
- tops are acceptable
- labels may remain on all containers
- aluminum foil & pie pans are **NOT** accepted

Glass food and beverage containers
- rinse all containers
- remove tops
- labels may remain on all containers
- light bulbs, drinking glasses, & mirrors are **NOT** accepted

Corrugated cardboard
- flatten all boxes
- place alongside or under bin
- paperboard products such as cereal boxes, shoe boxes & egg cartons are **NOT** accepted

Newspaper
- remove plastic bag
- place in bin or in a paper bag alongside bin
- circulars are acceptable

Catalogs and magazines
- all direct mail, magazines & catalogs are acceptable
- junk mail, envelopes & other types of paper are **NOT** accepted

Telephone books
- place all telephone directories (white, yellow and purple) in the bin
- directories are accepted at any time

Plastics
- only plastics #1 and #2 accepted
- rinse all containers
- remove tops
- labels may remain on all containers
- The following plastics are **NOT** accepted:
- chemical containers (motor oil, paint, acids)
- plastic grocery bags (check with your local grocery store)
- stryrofoam egg cartons (check with nearby schools)
- packaging peanuts
- appliance protectants
- bubble paper



Questions?

Jefferson Parish Recycling Office 736-6104
Waste Management of Louisiana, Inc. 254-5353



JEFFERSON PARISH
CURBSIDE RECYCLING PROGRAM
GUIDELINES

Jefferson Parish provides weekly curbside recycling services to all residents in Unincorporated Jefferson. Please adhere to the following guidelines when recycling.

WHAT GOES INTO THE BIN?



Aluminum and tin cans
- rinse all containers
- tops are acceptable
- labels may remain on all containers



Glass food and beverage containers
- remove all tops
- rinse all containers
- **NOT accepted**:
  - light bulbs, drinking glasses, mirrors, or clay flower pots



Newspaper
- place in the bin or alongside, tied or in a paper bag (not plastic)
- remove plastic bag
- circulars are acceptable



Telephone Books
- place all telephone directories (white, yellow and purple) in the bin
- directories are accepted at any time



Catalogs & magazines
- magazines & catalogs are acceptable
- **NOT accepted**:
  - junk mail, envelopes & other types of paper products



Corrugated cardboard
- flatten all boxes
- place in, alongside, or under bin
- **NOT accepted**:
  - cereal boxes, shoe boxes & egg cartons



Plastics
- only plastics #1 & #2 are accepted
- rinse all containers
- remove tops
- labels may remain on all containers
- **NOT accepted**:
  - chemical containers (motor oil, paint, acids)
  - plastic grocery bags (check with your local grocery store)
  - styrofoam egg cartons (check with nearby schools)
  - packing peanuts (*call 1-800-828-2214)*

QUESTIONS?

Jefferson Parish Department of Environmental Affairs 736-6102

Bins should be placed curbside, on the Parish servitude immediately in front of one's own property. Recyclables should not be placed curbside for collection any sooner than 4:00 pm on the day preceding your regular collection day. Emptied bins must be removed from the curb by noon on the day immediately following the collection day.

JEFFERSON PARISH CURBSIDE RECYCLING PROGRAM GUIDELINES

Jefferson Parish provides weekly curbside recycling services to all residents in Unincorporated Jefferson. Please adhere to the following guidelines when recycling.

WHAT GOES INTO THE BIN?



Aluminum and tin cans

- rinse all containers
- tops are acceptable
- labels may remain on all containers



Glass food and beverage containers

- remove all tops
- rinse all containers
- **NOT accepted:** light bulbs, drinking glasses, mirrors, or clay flower pots



Newspaper

- place in the bin or alongside, tied or in a paper bag (not plastic)
- remove plastic bag
- circulars are acceptable



Telephone Books

- place all telephone directories (white, yellow and purple) in the bin
- directories are accepted at any time



Catalogs & magazines

- magazines & catalogs are acceptable
- **NOT accepted:** junk mail, envelopes & other types of paper products

Corrugated cardboard

- flatten all boxes
- place in, alongside, or under bin
- **NOT accepted:** cereal boxes, shoe boxes & egg cartons



Plastics

- only plastics #1 & #2 are accepted
- rinse all containers
- remove tops
- labels may remain on all containers



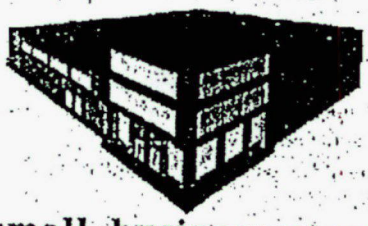
- **NOT accepted:**
  - # chemical containers (motor oil, paint, acids)
  - # plastic grocery bags (check with your local grocery store)
  - # Styrofoam egg cartons (check with nearby schools)
  - # Packing peanuts *CALL (1-800-828-2214)*

If you need a bin or have questions please call:

Jefferson Parish Department of Environmental Affairs 736-6104

Bins should be placed curbside, on the Parish servitude, immediately in front of one's own property. Recyclables should not be placed curbside for collection any sooner than 4:00 p.m. on the day preceding your regular collection day. Emptied bins must be removed from the curb by noon on the day immediately following the collection day.

ATTENTION
JEFFERSON PARISH
BUSINESS OWNERS AND OPERATORS



Guidelines for small businesses receiving curbside collection from the Parish's garbage collection contract:

- Businesses receiving curbside collection from the Parish's contracted waste hauler are limited to five (5) containers per collection day per business unit.
- Bulky waste, white goods and tires will not be removed from businesses. These materials may be brought to the Jefferson Parish Landfill for a fee.
- Businesses receiving curbside collection shall not set out garbage and trash curbside prior to 4:00 pm on the day preceding the regular collection day. Emptied containers shall be removed from the curbside by noon on the day following the regular collection day.

Businesses receiving solid waste collection through a private bulk waste container company must maintain their dumpsters in the condition described below:

- Containers shall be kept covered at all times except during placement or removal of contents.
- Containers shall not be filled so that the lid cannot fit properly.
- The area around each dumpster shall be kept clean.

General Solid Waste Guidelines for Businesses

The operators of all retail outlets, including, but not limited to, convenience stores, grocery stores, restaurants and cigarette outlets, shall have a durable plastic waste container not to exceed 40 gallons in front of, or near the entrance to, their business for the deposit by their customers of garbage, refuse and litter associated with the operation of said business.

The owners of outdoor malls, strip retail outlets that are not connected by enclosed covered walkway(s), shall be responsible for furnishing, emptying and maintaining at least one 40-gallon container for each 100 feet of store frontage in the mall.

FOR MORE INFORMATION, PLEASE CALL THE JEFFERSON PARISH DEPARTMENT OF ENVIRONMENTAL AFFAIRS AT 736-6102

APPENDIX H

ILLICITS DISCHARGE INSPECTION PROGRAM

CITY OF KENNER
MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT
LAS000201

Submitted to

THE ENVIRONMENTAL PROTECTION AGENCY
REGION VI

Prepared by

THE CITY OF KENNER

February 1999

CITY OF KENNER
ILLICITS DISCHARGE INSPECTION PROGRAM

Kenner is part of the Jefferson Parish storm sewer system. The system is distinguished by hundreds of miles of open canals in which most problems are easily seen. If something unusual (i.e. foam, color) is seen in a canal, it is usually reported to the City of Kenner - Department of Public Works by the public or City personnel, and it is investigated immediately in an attempt to locate the source and correct the problem. This system of responding to citizen and City employee notifications of potential problems in the storm drainage system is a very effective form of illicit discharge inspection (dry weather screening).

In addition to this program, City of Kenner - Public Works personnel will identify appropriate drainage sub-basins. The sub-basins selected shall be in areas not addressed in other parts of the Municipal Separate Storm Sewer System Permit and shall include residential, commercial, and industrial areas of sufficient size to be a substantial contributor of urban runoff. An initial windshield screening will be conducted during dry weather to look for evidence of potential dry weather pollution such as foam, turbidity, floatables, deposits or stains, sediment accumulation, unusual color, or the absence or abundance of vegetation at drainage outfalls and/or drainage canals and ditches in the selected sub-basin.

Kenner is intended to screen the entire Municipal Storm Sewer System at least once per five years. The screening practices will be started from the sub-basin where the City's wastewater pretreated facilities are located. The screening process will also be prioritized on the basis of magnitude and nature of the suspected discharge.

If no significant visual evidence of potential dry weather pollution is discovered during the windshield screening, then the next sub-basin will be screened. If significant visual evidence of potential dry weather pollution is discovered during the windshield screening, then a dry weather survey of the sub-basin will be conducted, using the illicit discharge inspection (dry weather survey) checklist.

The illicit discharge inspection (dry weather survey) will be used to identify potential sources of pollutants. Dry weather visual observations of pollutant sources such as erosion, wash-off from chemical storage areas, poor housekeeping in waste storage areas, etc. will be documented on the illicit discharge inspection (dry weather survey) checklist. If pollutant sources are readily apparent, recommended actions would also be noted on the field survey form and pictures taken to document the source. Recommendations and documentation would then be routed to the appropriate entity for action.

If the illicit discharge inspection (dry weather survey) uncovers what appears to be significant pollutant problems, but the source cannot be identified by the illicit discharge inspection (dry weather survey) data, then screening samples may be collected to further attempt to identify the source. An advanced follow-up activity, facility inspection, to

eliminate illicit discharges and improper disposal will be conducted. This inspection program may be conducted associated with pretreatment inspections of industrial users, health inspections, fire inspections, etc. Random inspections for facilities not normally visited by the City will also be conducted.

Assessment of the illicit discharge inspection (dry weather survey) program will be a process in which screening and survey methods will be evaluated periodically to determine the benefits of the screening process.

APPENDIX

DRAINAGE SUB-BASIN VISUAL OBSERVATION CHECKLIST & FLOW CHART

DRAINAGE SUB-BASIN VISUAL OBSERVATION CHECKLIST
CITY OF KENNER MS4
ILLICITS DISCHARGE INSPECTION PROGRAM

Instructions: Place an "X" in the appropriate box for each item. If any response requires an explanation, please explain in the observation/comments space. Additional comments should be attached on a separate sheet of paper.

Investigator:_____ Date:_____

Area:_____

Pipe(s)
Size Type Location

_____

_____

VISUAL SCREENING OF STORM SEWER OUTFALLS:

	YES	NO	NA	OBSERVATIONS/COMMENTS
Is water flowing from the pipe?	[ ]	[ ]	[ ]	_____
If so, please describe physical parameters of discharge:				
Color	[ ]	[ ]	[ ]	_____
Turbidity	[ ]	[ ]	[ ]	_____
Sheen	[ ]	[ ]	[ ]	_____
Foam	[ ]	[ ]	[ ]	_____
Floatables	[ ]	[ ]	[ ]	_____
Other	[ ]	[ ]	[ ]	_____
Does the vegetation around the outfall or in the canal show visual signs of pollutants?	[ ]	[ ]	[ ]	

Describe (i.e. algae, excessive growth, absence of vegetation, etc.):

_____

_____

_____

SUB-BASIN SURVEY:

INDUSTRIAL RUNOFF:

	YES	NO	NA	OBSERVATIONS/COMMENTS
Are there any industries that appear to be discharging or contributing polluted runoff to the storm sewer system?	[ ]	[ ]	[ ]	_____

List industries:

Name:	Address:
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

URBAN RUNOFF:

	YES	NO	NA	OBSERVATIONS/COMMENTS
Is the area free from litter?	[ ]	[ ]	[ ]	_____
Are all storage tanks in good operating condition? (free from cracks and not leaking)	[ ]	[ ]	[ ]	_____
Does the storm drainage system appear to be operating properly?	[ ]	[ ]	[ ]	_____
Is the area free from surface liquid contamination?	[ ]	[ ]	[ ]	_____
Is the area free from non-stormwater discharges?	[ ]	[ ]	[ ]	_____
Are covers on all outside trash containers to prevent rainfall from entering?	[ ]	[ ]	[ ]	_____
Are area gas stations free of oil and gas spills or leaks?	[ ]	[ ]	[ ]	_____

EROSION:

	YES	NO	NA	OBSERVATIONS/COMMENTS
Is there excessive sediment accumulation?	[ ]	[ ]	[ ]	_____
Are canal banks stable and vegetated?	[ ]	[ ]	[ ]	_____
Is nutria activity apparent?	[ ]	[ ]	[ ]	_____
Do area construction sites have sedimentation and erosion controls? (silt fences, hay bales, etc.)	[ ]	[ ]	[ ]	_____
Are all nonpaved areas vegetated and free from erosion potential?	[ ]	[ ]	[ ]	_____

SEWER SYSTEM AND INDIVIDUAL SEPTIC SYSTEMS:

	YES	NO	NA	OBSERVATIONS/COMMENTS
Are there visible signs of of sanitary sewer overflows?	[ ]	[ ]	[ ]	_____
Are septic system discharge points free from odor and septic conditions?	[ ]	[ ]	[ ]	_____

RECOMMENDED ACTION:

_____

_____

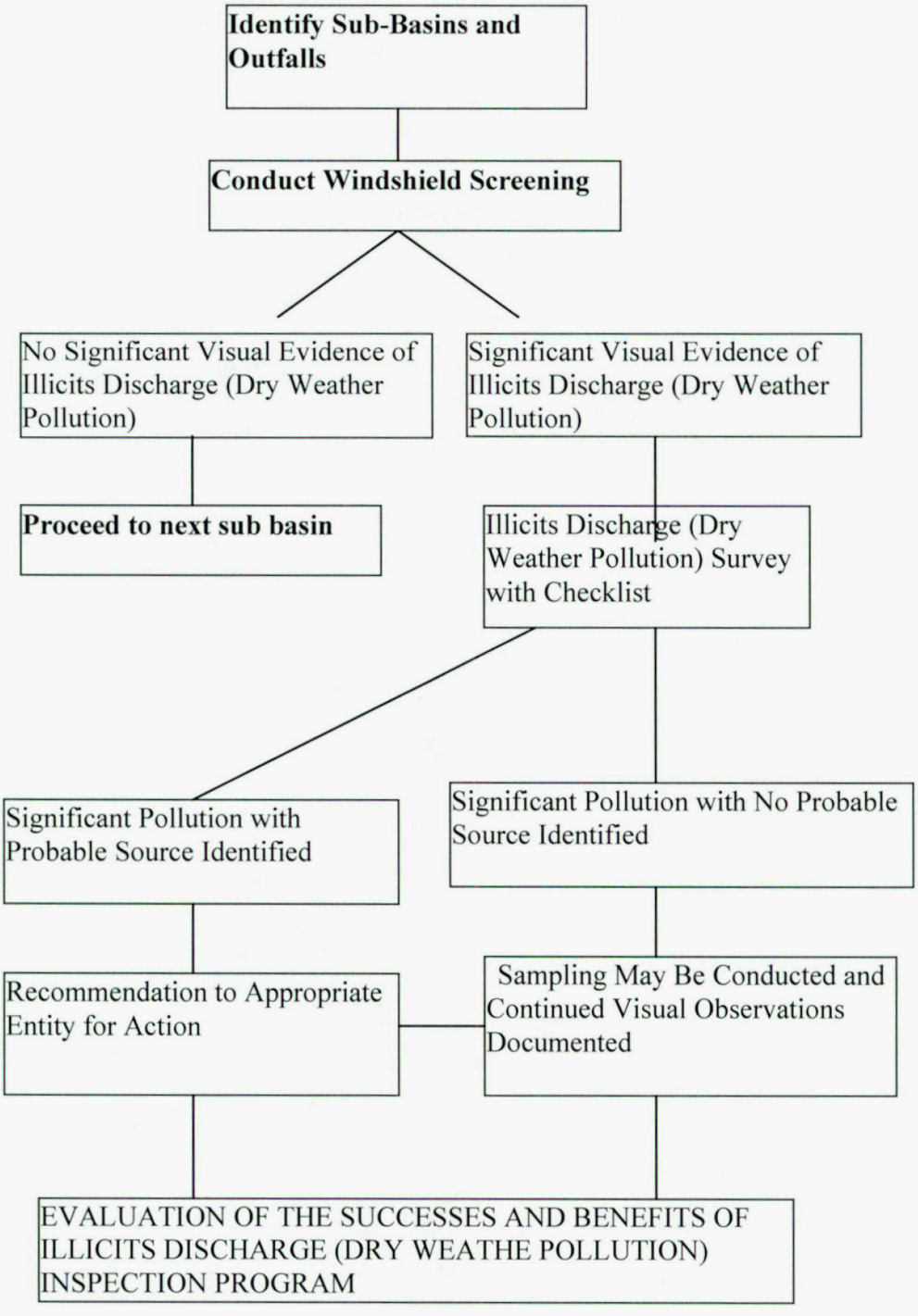
_____

_____

_____

	YES	NO	NA	OBSERVATIONS/COMMENTS
PHOTOS TAKEN:	[ ]	[ ]	[ ]	_____

City of Kenner Illicits Discharge Inspection Procedures Flow Chart



APPENDIX I

CITY OF KENNER

LIST OF INDUSTRIAL & HIGH RISK (I&HR) FACILITIES

	Facility Name	Address	City	State	Zip	TRI Facility	NPDES Permit	NPDES Permit Type
1	Aircraft Service International Inc	New Orleans International Airport	Kenner	LA	70141		LAR05N236	Gen-LAR05-Multi-Sector
2	All Scrap Metals LLC	7 Veterans Memorial Hwy	Kenner	LA	70062		LAR05M783	Gen-LAR05-Multi-Sector
3	Atlantic Aviation Services	200 Crofton Rd	Kenner	LA	70062		LAR05N560	Gen-LAR05-Multi-Sector
4	Belle Chasse Marine Transportation Inc - Ama Launch Station	153 W Third St	Kenner	LA	70062		LAG531132	Gen-LAG53-Sanitary Class I
5	Best Chevrolet Inc	2600 Veterans Memorial Blvd	Kenner	LA	70062		LAG470096	Gen-LAG47-Auto Repair/Dealers
6	Budget Rent A Car System #2801	900 Airline Hwy Service Rd B	Kenner	LA	70062		LAR05M055	Gen-LAR05-Multi-Sector
7	Doctor Pipe Inc	34 E Third St	Kenner	LA	70062		LAR05N506	Gen-LAR05-Multi-Sector
8	Freeport McMoran Aviation Terminal	200 Middle Access Rd	Kenner	LA	70062		LAR05M056	Gen-LAR05-Multi-Sector
9	Jobbers Oil Transport Co Inc	814 Kenner Ave	Kenner	LA	70062		LAR05P151	Gen-LAR05-Multi-Sector
10	Kenner City of - Kenner WWTP #3	1 W 30th St	Kenner	LA	70065		LA0066800 LAR05M174	Indiv-Major-Sanitary Gen-LAR05-Multi-Sector
11	Kolb Grading LLC - North Terminal Louis Armstrong New Orleans International Airport	900 Airline Dr	Kenner	LA	70062		LAR10L364	Gen-LAR10-Construction
12	LADOTD - Kenner Maintenance Unit	166 W Third St	Kenner	LA	70062		LAR05N315 LAG750791	Gen-LAR05-Multi-Sector Gen-LAG75-Exterior Vehicle Wash
13	Louis Armstrong New Orleans International Airport	900 Airline Hwy	Kenner	LA	70062		LAR05M023	Gen-LAR05-Multi-Sector
14	Motiva Enterprises LLC - Kenner Terminal	143 Firehouse Dr	Kenner	LA	70062	X	LAG480385	Gen-LAG48-Light Commercial
15	Pellerin Milnor Corp	700 Jackson St	Kenner	LA	70062		LAR05N532	Gen-LAR05-Multi-Sector
16	Southwest Airlines	900 Airline Hwy Concourse B	Kenner	LA	70141		LAR05M059	Gen-LAR05-Multi-Sector
17	State Machinery	160 W Airline Hwy	Kenner	LA	70063		LAR05P030	Gen-LAR05-Multi-Sector
18	United Airlines	900 Airline Hwy Concourse C	Kenner	LA	70141		LAR05M045	Gen-LAR05-Multi-Sector
19	United Parcel Service Inc (UPS)	200 Crofton Rd	Kenner	LA	70123		LAR05M145	Gen-LAR05-Multi-Sector
20	US Air	900 Airline Hwy Concourse A	Kenner	LA	70141		LAR05M044	Gen-LAR05-Multi-Sector
21	US Postal Service - Kenner Station	2300 Williams Blvd	Kenner	LA	70062		LAR05P736	Gen-LAR05-Multi-Sector
22	US Postal Service - North Kenner Station	390 W Esplanade Ave	Kenner	LA	70065		LAR05P735	Gen-LAR05-Multi-Sector
23	W Lake Pontchartrain E Block 41 Central Facility	1 Mi N of	Kenner	LA	70000		LAG33A703	Gen-LAG33-Coastal

INSPECTION CHECKLIST
CITY OF KENNER MS4
INDUSTRIAL & HIGH RISK (I&HR) INSPECTION PROGRAM

Instructions: Place an "X" in the appropriate box for each item. If any response requires an explanation, please explain in the observation/comments space. Additional comments should be attached on a separate sheet of paper.

Investigator:_____ Date:_____

Facility Name:_____ Responsible Person:_____

VISUAL SCREENING FOR POTENTIAL STORM SEWER CONTAMINATION:

	YES	NO	N/A	OBSERVATIONS/COMMENTS
Are any raw or waste materials presently exposed or are likely to be exposed to storm water?	[ ]	[ ]	[ ]	_____
Are any final or intermediate products presently exposed or are likely to be exposed to storm water?	[ ]	[ ]	[ ]	_____
Are any by-products presently exposed or are likely to be exposed to storm water?	[ ]	[ ]	[ ]	_____
Are any material handling equipment or activities presently exposed or are likely to be exposed to storm water?	[ ]	[ ]	[ ]	_____
Are any industrial machinery or operations presently exposed or are likely to be exposed to storm water?	[ ]	[ ]	[ ]	_____
Are any significant materials from past industrial activity presently exposed or are likely to be exposed to storm water?	[ ]	[ ]	[ ]	_____

Other observations:

_____

RECOMMENDED ACTION:

_____

	YES	NO	N/A	OBSERVATIONS/COMMENTS
PHOTOS TAKEN:	[ ]	[ ]	[ ]	_____

APPENDIX J

CONSTRUCTION SITE INSPECTION PROGRAM

CITY OF KENNER
MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT
LAS000201

Submitted to

THE ENVIRONMENTAL PROTECTION AGENCY
REGION VI

Prepared by

THE CITY OF KENNER

October 10, 1998

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APPENDIX

A. Environmental & Development Building Permit Plan Review Form

B. Notice of Intent (NOI) And Notice of Termination (NOT) Forms

C. City of Kenner Construction Pollution Prevention Plan NPDES General Permit Application Form And Weekly Inspection Check List Form

D. EPA Booklet "Storm Water Management for Construction Activities: Developing Pollution Prevention Plans and Best Management Practices, Summary Guidance"

E. Construction Site Inspection Report Form

SECTION 1
INTRODUCTION

This Construction Site Inspection (CSI) Program has been prepared in accordance with the National Pollutant Discharge Elimination System (NPDES) Permit requirements. This CSI Program has been prepared to assist in the notification procedures and training of the City of Kenner staff in the inspection of construction sites disturbing five (5) or more acres of land. This section provides background information on the regulatory aspects of controlling storm water pollution from construction sites as well as general requirements of the CSI Program as determined by the final NPDES Permit issued to the City of Kenner Municipal Separate Storm Sewer System (MS4).

1.1 BACKGROUND

A final NPDES Permit, No. LAS000201, was issued to Jefferson Parish, Louisiana Department of Transportation and Development-District 02, City of Gretna, City of Harahan, City of Kenner, and City of Westwego to discharge from all portions of the Jefferson Parish MS4 to waters of the United States in accordance with the Storm Water Management Program (SWMP). The final NPDES permit was issued by the United States Environmental Protection Agency (USEPA) on January 17, 1997, and became effective on March 1, 1997.

The NPDES MS4 Permit requires Jefferson Parish and the incorporated Cities of Gretna, Harahan, Kenner, and Westwego to develop, revise, and implement a comprehensive SWMP. The SWMP shall include administrative, non-structural, and structural practices to reduce the discharge of pollutants from the Municipal Separate Storm Sewer System to the Maximum Extent Practicable (MEP).

One of the requirements of the SWMP is the development and implementation of a Construction Site Inspection Program by each permittee. The purpose of this CSI Program is to identify procedures and practices by the City of Kenner to address potential pollutants generated by construction sites.

Furthermore, Part II-Section A.9 "Construction Site Runoff" of the permit identifies the criteria for the development of the Construction Site Inspection Program as follows:

"9. Construction Site Runoff: A program to reduce the discharge of pollutants from construction sites shall be implemented. This program shall include:

a. requirements for the use and maintenance of appropriate structural and nonstructural best

management practices to reduce pollutants discharged to the Municipal Separate Storm Sewer System during the time construction is underway;

b. inspection of construction sites and enforcement of control measures (in accordance with priorities and procedures established in the Storm Water Management Program);

c. appropriate education and training measures for construction site operators; and

d. notification of appropriate building permit applicants of their potential responsibilities under the NPDES permitting program for construction site runoff."

1.2 PURPOSE

One of the most important factors to reduce the amount of pollutants entering the storm water drainage system from construction projects is the development of a good pollution prevention plan. During the development of this plan, the different alternatives available to control erosion and sediments from entering the storm water drainage system are evaluated. The City of Kenner has developed this Construction Site Inspection Program to address construction projects disturbing five (5) or more acres of land.

1.3 CITY OF KENNER JURISDICTION

The City of Kenner is responsible for the inspection of construction sites within the City of Kenner.

SECTION 2
NOTIFICATION PROCEDURES

This section addresses the notification procedure for developers with construction sites that disturb five (5) or more acres of land. These construction sites require storm water permit and implementation of Best Management Practices (BMPs). Separate notification procedures are discussed for City public works and private projects.

2.1 CITY OF KENNER PROJECTS

The responsibility for obtaining the proper permit documentation for all City projects remains with the Department(s) initiating the construction project. The Department(s) responsible for new construction projects is (are) required to make contractors, of projects with a common plan of development of five (5) acres or greater, aware of the requirement to obtain coverage under the Construction Sites General Permit. If a storm water permit is deemed necessary during the planning phase, then a Notice of Intent (NOI) and a Notice of Termination (NOT) will be submitted to the Louisiana Department of Environmental Quality (LDEQ) at the address below, with a copy sent to the Code Enforcement Department prior to any clearing and grubbing activities. A Storm Water Pollution Prevention Plan (SWPPP) is developed and implemented to maintain compliance during the construction phase of the project. The Inspection and Code Enforcement (I&CE) Department is available to assist in the development of the SWPPP.

The Notice of Intent Form shall be submitted to the:

Louisiana Department of Environmental Quality
General Permits Unit
P.O. Box 82215
Baton Rouge, Louisiana 70884-2215

2.1.1 Storm Water Pollution Prevention Plan Development

The department(s) responsible for a new construction project will make the determination to either develop the SWPPP internally or to include it as part of the contract with its design consultant.

Upon completion of the SWPPP by either the City of Kenner or its consultant, it is included in the contract documents during the bid phase of the project. The contract documents shall also state the Contractor's responsibility to implement and document the SWPPP throughout the duration of the construction phase.

2.2 PRIVATE PROJECTS

A Building Permit is required for all developers/constructors prior to commencing construction activities. The City of Kenner utilizes building permits as the primary source of information to the applicant in determining the required permits (e.g., storm water permit). The I&EC Department provides an application package to each applicant including permit requirements.

The I&EC Department will include an Environmental & Development Control Building Permit Review Form, included as Appendix A, a set of NOI forms (Appendix B), a City of Kenner construction pollution prevention plan form (Appendix C), and a copy of the EPA booklet- "Storm Water Management For Construction Activities: Developing Pollution Prevention Plans and Best Management Practices, Summary Guidance" (Appendix D) for the private development of five (5) acres or greater. The I&EC Department personnel will also explain the process of SWPPP development and offer to review the draft SWPPP to provide comments and/or suggestions.

The I&EC Department will not issue a building permit (certificate of occupancy) until receiving approval from all departments involved in the review process.

During the building permit review period, the I&EC Department personnel notify the applicants of the requirement to submit an NOI and NOT to the LDEQ (with a copy to the I&EC Department), and develop and implement a SWPPP.

SECTION 3
INSPECTION AND ENFORCEMENT PROCEDURES

The Construction Site Inspection Program for storm water pollution control is administered and implemented by the I&EC Department. During the building permit review process, the I&EC Department distributes a list of suggested BMP's to the applicant. However, the I&EC Department personnel do not indicate to the contractor or consultant specific control measures. Upon the applicant's request, the I&EC Department personnel may provide alternatives available to control the contamination of storm water runoff.

Many of the practices and measures required for the pollution prevention plan represent feasible management practices and housekeeping procedures at construction sites. Storm water management controls, erosion and sediment controls, and inspection and maintenance have all been used to mitigate impacts from construction projects. In order to develop the most effective plan within a reasonable cost, the various alternatives available must be considered for construction sites individually, tailoring the construction site SWPPP to the needs and requirements of the individual site.

3.1 INSPECTION PROCEDURES

The I&EC Department personnel complete the construction site inspection report during each inspection visit. A copy of the Inspection Report Form is included in Appendix E for all developments five (5) acres or greater. This checklist identifies the most common sources of construction site pollution.

During the initial construction site inspection, the inspector meets with the construction project superintendent, the individual in charge of the site, who will identity the person(s) responsible for the implementation and maintenance of construction site BMPs. Additionally, the I&EC Department personnel and the person(s) in charge of the stormwater pollution prevention plan confirm the following information:

* Total area to be disturbed by the construction project;
* Construction timing and phasing;
* Sources of potential storm water contamination (e.g., storage areas);
* Best Management Practices used at the site; NPDES permit; and
* Outfall location and receiving waters

After completing the interview with the designated person(s), a site tour and inspection is conducted by the I&EC Department representative. The I&EC Department representative will identity any deficiencies or recommend additional practices, either structural or non-structural, which could reduce the amount of pollutants that could enter the storm drainage system.

The I&EC Department representative focuses primarily on sediment and erosion control practices and the proper storage and use of chemical products. During the initial visit, I&EC Department representative emphasizes that sediment and floatable items must be prevented from entering the storm drainage system. Construction site entrances are also identified and inspected for evidence of mud being tracked into the street. All existing and newly installed drainage infrastructure is inspected for sufficient protection. The I&EC Department representative inspects the solid waste collection area, site housekeeping, and the storage of oil-based and other products with the potential to enter the drainage system (e.g., cement mixer washout, concrete curing compound, muriatic acid, solvents, etc.).

During this initial site inspection, the inspector acquires the information requested on the checklist; identifies and photographically documents areas where BMPs may be needed; and when necessary, gives the superintendent a deadline for installing additional measures (e.g., specific areas that the inspector has identified where sediment or pollutants are leaving the project site and entering the drainage system or the street).

The I&EC Department inspector makes periodic inspection visits to the site to determine whether BMPs have been implemented and working properly.

3.2 ENFORCEMENT PROCEDURES

The City of Kenner is currently working towards the development of an enforcement mechanism to require site operators to install and maintain erosion and sediment control plans. In the interim, the City of Kenner is accepting SWPPP developed for the Louisiana Department of Environmental Quality as sufficient control measures. Any construction project disturbing five (5) or more acres of land is covered by state regulations.

SECTION 4
RECOMMENDED BEST MANAGEMENT PRACTICES

Erosion, by the action of water and wind, is a natural process in which soil and rock material is loosened and removed. Soil erosion and sediment controls are measures that are used to reduce the amount of soil particles that are carried off a land surface and deposited in a receiving water. The soil erosion and sediment control measures should:

* Minimize the amount of disturbed soil.
* Prevent runoff from off-site areas from flowing across disturbed areas.
* Slow down the runoff flowing across the site.
* Remove sediment from on-site runoff before it leaves the site.

One of the best erosion and sediment controls is to minimize the amount of disturbed soil on the construction site. Minimizing the disturbed area will also decrease the amount of controls needed to remove the sediment from the runoff

4.1 STABILIZATION PRACTICES

Preserving existing vegetation and re-vegetating disturbed soil as soon as possible is the most effective way to control erosion. The vegetative cover reduces erosion in four ways:

* by shielding the soil surface
* by improving the soil's water storage capacity
* by slowing the storm water runoff velocity
* by physically holding the soil in place with plant roots

There are two types of stabilization: temporarily stabilization and permanent stabilization. These two types are discussed below.

4.1.1 Temporary Stabilization

One of the alternatives for temporary stabilization of disturbed soils at construction sites chosen by the contractor could be by temporary seeding such areas. Temporary seeding means growing a short-term vegetative cover on disturbed soil areas that may be in danger of erosion. This practice uses fast-growing grasses whose root systems hold down the soils. However, straw mulch or plastic/geo-textile fabrics could also be used.

Temporary stabilization shall be performed on areas which have been disturbed by construction and which are likely to be re-disturbed, but not for several weeks or more top soil stockpiles and disturbed portions of the construction site, where construction activity temporarily ceases for at

least 14 days, shall be stabilized no later than 7 days from the last construction activity in the area.

4.1.2 Permanent Stabilization

Disturbed soils on the site where construction activities permanently cease shall be stabilized with permanent seed or any other permanent landscaping chosen by the contractor no later than 7 days after the last construction activity. The permanent seed shall consist of grasses or as deemed appropriated by the superintendent or as specified in the Contract Documents. If deemed possible, the preservation of existing vegetation will be maintained to minimize the impact of construction activities on the Site.

4.2 STRUCTURAL CONTROLS

Structural practices are used in sediment and erosion control to divert storm water flow away from exposed areas, convey runoff and prevent sediments from moving off site. Structural controls, such as silt fences, serve two purposes on the construction site; the first purpose is to prevent run-on to the construction site from undisturbed areas; and the second purpose is to prevent and/or slow down run-off from the construction site.

4.2.1 Silt Fences

A silt fence is a temporary measure consisting of posts for structural support with perforated filter fabric. The fence is installed along the down slope perimeter of the construction site to trap sediment on the uphill side.

4.2.2 Earth Dike

An earth dike is a berm of stabilized soil constructed for diversion of off-site runoff Earth dikes prevent off-site runoff from entering the construction site and reduce the amount of potential contaminated runoff.

4.3 NON-STRUCTURAL CONTROLS

Best Management Practices also include non-structural procedures that help to eliminate or reduce pollutant loading in storm water runoff. Through management techniques and practices, it is possible to improve control of potential pollutants and reduce the number of releases to the storm water system. During construction activities, the following BMPs shall minimize the risk of spills or other accidental exposure of materials and substances to storm water runoff. The following good housekeeping practices could be followed on-site during the construction project,

when applicable.

4.3.1 Pesticide and Herbicide Management

Storage procedures shall include:

* Maintaining protected storage area from weather elements.
* Securing storage area (i.e., locked gate).
* Keeping lids tightly closed.
* Maintaining storage areas cool and dry.
* Transferring material into a properly labeled container in case of a leak or damaged container.
* Inspecting containers periodically for leaks or deterioration.
* Lining storage area with plastic sheeting.

General disposal procedures shall include:

* Dispose through a licensed waste management firm or treatment, storage, and disposal company (TSD).
* Plan ahead so as to minimize the amount of product to be disposed. Whenever possible, all product will be used completely prior to container disposal.
* Triple rinse containers before disposal. Rinsate shall be placed in the spray tank at time of mixing. DO NOT DISPOSED OF RINSATE INTO STORM DRAIN.

4.3.2 Petroleum Products Management

All on-site vehicles shall be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage.

Storage procedures shall include:

* Lining the storage area with a double layer of plastic sheeting or similar material.

* Creating an impervious berm around the perimeter of the storage tank with a capacity of 110 percent of the volume of the container.

* Keeping all products clearly labeled.

* Keeping tank(s) off the ground.

* Communicate spill procedures. Trained spill response personnel will be on-site or on call at all times.

* Keeping materials for spill cleanups on-site and easily available. Spills shall be cleaned up immediately and the contaminated material properly disposed.

4.3.3 Construction Chemical Management

A good Construction Chemical Management should include the following:

* Plan ahead, buy and use only what is needed. Leftovers need to be stored, reused, recycled or disposed of in a safe environmental manner.

* Hazardous products will be labeled properly. Material Safety Data Sheets will be available.

* Products will be kept in original containers. If the product needs to be transferred to another container, use the proper container and follow handling instructions for the specific product. Make sure to re-label the container.

* During storage, corrosive liquids will be kept away from flammable liquids.

4.3.4 Solid Waste Management

As with material storage, material disposal operations pose a potential threat for storm water contamination. The following good housekeeping practices shall be followed regarding solid waste control.

* Dumpster areas shall be clean.

* Storage units shall be intact without obvious damage or leaks.

* Storage units shall have lids or covers that will be placed over the containers prior to rainfall.

* Provide waste collection before containers overflow.

4.3.5 Truck Washouts

Trucks hauling concrete shall not be allowed to wash out or discharge surplus concrete or drum wash water on the site. Only under emergency circumstances will trucks be allowed to dispose of surplus concrete. Under these circumstances, the concrete shall be disposed of in an area where the concrete wash can harden, be broken up, and then be disposed of in dumpsters. The location of this area will not be subject to surface water runoff.

4.4 WASTE DISPOSAL PRACTICES

Material disposal operations pose a potential threat for storm water contamination. As a result, good management and proper disposal of building materials, and other construction site wastes are important parts of pollution prevention. There could be three types of waste materials at the construction site as described below.

4.4.1 Construction Waste

All construction waste shall be collected and stored in a closed and secured metal dumpster. A licensed solid waste management company shall provide the dumpster and be responsible for hauling the construction waste to a licensed solid waste disposal facility.

The following steps shall be taken to ensure proper disposal of construction wastes:

* Select a designated waste collection area on-site:

* Provide an adequate number of containers with lids or covers that can be placed over the container prior to rainfall;

* Arrange for waste collection before containers overflow;

* If a container does overflow, provide cleanup immediately:

* No construction waste will be buried on-site under any circumstances; and

* No hazardous waste materials will be disposed in the construction waste dumpster.

4.4.2 Hazardous Waste

A variety of wastes such as paints, cleaning solvents, and concrete curing compounds and additives encountered at construction sites are classified as hazardous wastes. A" hazardous waste materials shall be disposed of in a proper manner as specified by applicable state and federal regulations or by the manufacturers of such products.

4.4.3 Sanitary Waste

A licensed sanitary waste management contractor shall collect all sanitary waste from any portable units at the construction site as needed.

4.5 OFF-SITE VEHICLE TRACKING

All construction entrances shall be stabilized (e.g., gravel bed, temporary pavement) to help reduce vehicles tracking sediments off-site. Dump trucks hauling material from the construction site shall be properly covered. These control measures will also minimize dust generation.

SECTION 5
PERSONNEL TRAINING

5.1 PERSONNEL TRAINING

The I&CE Department periodically conducts training for their personnel that perform construction site inspections. The training program addresses:

* Pollution Control Laws and Regulations;
* Construction Site Run-off Pollution Prevention Practices; and
* Development of Storm Water Pollution Prevention Plans.

SECTION 6
RECORD KEEPING

6.1 RECORD KEEPING

It is important to document the inspection of pollution prevention measures at construction projects. Copies of the inspection reports and SWPPPs shall be kept by the Code Enforcement Department until final stabilization of the construction project, and the Notice of Termination has been filed. Other events, which should be documented and kept on record, include significant changes in on-site activities and significant storm water pollution events (e.g., spills, failure of BMPs, etc.).

In addition, the contractor is required to maintain a copy of the SWPPP on-site at all times.

APPENDIX A

ENVIRONMENTAL AND DEVELOPMENT CONTROL
BUILDING PERMIT PLAN REVIEW FORM

CITY OF KENNER
ENVIRONMENTAL AND DEVELOPMENT CONTROL
BUILDING PERMIT PLAN REVIEW FORM
(For All Construction Sites 5.0 Acres or Larger)

1. Name and address of (proposed) business or construction site:

_____

_____

_____

2. Name of authorized person(s) to contact regarding questions about this business: _____

   Title: _____ Phone: _____

3. Standard Industrial Classification (SIC) Code _____

4. Type of Business (check all that apply)

[ ] Manufacturer	[ ] Grocery/Supermarket
[ ] Machine Shop	[ ] Convenience Store
[ ] Auto Repair Shop	[ ] Retail Store
[ ] Service Station	[ ] Shopping Center
[ ] Car Wash	[ ] Funeral Home
[ ] Laundromat	[ ] Hair Salon/Barbershop
[ ] Food Processor	[ ] Nail Salon
[ ] Restaurant/Food Service	[ ] Business Office
[ ] Bakery	[ ] Hotel/Motel
[ ] Hospital	[ ] Nursing Home
[ ] Dental Office	[ ] School/Church
[ ] Medical Office	[ ] Warehouse
[ ] Veterinarian Office	[ ] Other (specify) _____

5. This is (check all that apply):
   - [ ] New construction less than five (5) acres
   - [ ] New construction five (5) acres or greater
   - [ ] Renovation to Existing Building
   - [ ] Addition to Existing Building
   - [ ]Multi-Unit Building

6. Check any of the following treatment devices to be employed on-site:

[ ] Grease Trap	[ ] Floor drain screens
[ ] Oil/water separator	[ ] Septic tank
[ ] Sedimentation/grit trap	[ ] Silver recovery unit
[ ] Sewerage treatment plant	[ ] Other (specify) _____

7. If new construction, check any of the following treatment/containment methods to be employed:

[ ] Drainage culvert covers	[ ] Silt fence
[ ] Hay bales	[ ] Detention pond
[ ] Other (specify) _____	

8. _____ Check here if hazardous materials will be stored on site

9. _____ Check here if hazardous wastes will be generated
Hazardous Waste Generator Number _____

10. Please give a thorough, detailed description of operations, including the source(s) of any wastewater entering the sanitary sewerage system or the storm drainage system, and the source of any other emissions to air, land, water, etc. from the facility:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Other documentation such as, permit applications, notices of intent, other departmental approvals and blueprints may be required in support of this form. A permit to discharge into the sewerage and/or drainage system(s) may be required from the City of Kenner Public Works Department and Department of Wastewater Operations prior to commencement of operations.

Construction sites of five (5) acres or larger must file a Notice of Intent (NOI) with the U. S. Environmental Protection Agency (EPA), to be covered under an NPDES General Permit for the discharge of stormwater from a construction site, at least two (2) days prior to the commencement of construction activities (such as site clearing or grading). A stormwater Prevention Plan must be developed for each construction site covered by this permit.

If you need assistance or have any questions, contact the City of Kenner Inspection and Code Enforcement Department at (504) 468-7200.

DO NOT WRITE BELOW THIS LINE (FOR OFFICE USE ONLY)

_____ Requires inspection by pretreatment program
_____ Requires inspection by stormwater management program
_____ Meets criteria for Food Service Operation
Put on ESC Date:_____
_____ Requires letter to determine if Food Service Operation
_____ Requires no further follow-up

Determination made by: _____ Date: _____

APPENDIX B

NOTICE OF INTENT (NOI)
AND
NOTICE OF TERMINATION (NOT) FORMS

NPDES FORM 3510-9	EPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 NOTICE OF INTENT (NOI) FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER AN NPDES GENERAL PERMIT	Form Approved. OMB No. 2040-0004

Submission of this Notice of Intent (NOI) constitutes notice that the operator identified in Section II of this form requests authorization to discharge pursuant to the NPDES Construction General Permit (CGP) permit number identified in Section I of this form. Submission of this NOI also constitutes notice that the operator identified in Section II of this form meets the eligibility requirements of Parts 1.1 and 1.2 of the CGP for the project identified in Section III of this form. Permit coverage is required prior to commencement of construction activity until you are eligible to terminate coverage as detailed in Part 8 of the CGP. To obtain authorization, you must submit a complete and accurate NOI form. Discharges are not authorized if your NOI is incomplete or inaccurate or if you were never eligible for permit coverage. Refer to the instructions at the end of this form.

I. Approval to Use Paper NOI Form

Have you been given approval from the Regional Office to use this paper NOI form*? ☐ YES ☐ NO

If yes, provide the reason you need to use this paper form, the name of the EPA Regional Office staff person who approved your use of this form, and the date of approval:

Reason for using paper form:

Name of EPA staff person:

Date approval obtained: ___ / ___ / ____

*** Note: You are required to obtain approval from the applicable Regional Office prior to using this paper NOI form.**

II. Permit Information

Tracking Number (EPA Use Only):

Permit Number: (see Appendix B of the CGP for the list of eligible permit numbers)

III. Operator Information

Name:

Phone: - - Ext. Fax (optional): - -

E-mail:

IRS Employer Identification Number (EIN): –

Point of Contact:

First Name, Middle Initial, Last Name:

Mailing Address:

Street:

City: State: Zip Code: -

NOI Preparer (Complete if NOI was prepared by someone other than the certifier):

Prepared by:

First Name, Middle Initial, Last Name:

Organization:

Phone: - - Ext. Fax (optional): - -

E-mail:

IV. Project/Site Information

Project/Site Name:

Project/Site Address:

Street/Location:

City: State: Zip Code: -

County or similar government subdivision:

For the project/site for you are seeking permit coverage, provide the following information:

Latitude/Longitude (Use one of three possible formats, and specify method):

Latitude 1. ___ ___° ___ ___' ___ ___" N (degrees, minutes, seconds)
2. ___ ___° ___ ___. ___ ___' N (degrees, minutes, decimal)
3. ___ ___. ___ ___ ___ ___° N (degrees decimal)

Longitude 1. ___ ___ ___° ___ ___' ___ ___" W (degrees, minutes, seconds)
2. ___ ___ ___° ___ ___. ___ ___' W (degrees, minutes, decimal)
3. ___ ___ ___. ___ ___ ___ ___° W (degrees decimal)

Latitude/Longitude Data Source: ☐ U.S.G.S. topographic map ☐ EPA web site ☐ GPS ☐ Other: _____

If you used a U.S.G.S. topographic map, what was the scale? _____

Horizontal Reference Datum: ☐ NAD 27 ☐ NAD 83 or WGS 84 ☐ Unknown

Is your project/site located in Indian Country lands, or located on a property of religious or cultural significance to an Indian tribe? ☐ YES ☐ NO

If yes, provide the name of the Indian tribe associated with the area of Indian country (including name of Indian reservation, if applicable), or if not in Indian country, provide the name of the Indian tribe associated with the property: _____

Are you requesting coverage under this NOI as a "federal operator" as defined in Appendix A? ☐ YES ☐ NO

Estimated Project Start Date: / / Estimated Project Completion Date: / /

Estimated Area to be Disturbed (to the nearest quarter acre): .

Have earth-disturbing activities commenced on your project/site? ☐ YES ☐ NO

If yes, is your project an "emergency-related project? ☐ YES ☐ NO

Have stormwater discharges from your project/site been covered previously under an NPDES permit? ☐ YES ☐ NO

If yes, provide the Tracking Number if you had coverage under EPA's CGP or the NPDES permit number if you had coverage under an EPA individual permit:

V. Discharge Information

Does your project/site discharge stormwater into a Municipal Separate Storm Sewer System (MS4)? ☐ YES ☐ NO

Are there any surface waters within 50 feet of your project's earth disturbances? ☐ YES ☐ NO

Receiving Waters and Wetlands Information: (Attach a separate list if necessary)

Provide the name(s) of the first surface water that received stormwater directly from your site and/or from the MS4:	Provide the names of any impaired waters to which you discharge and the pollutant(s) for which they are impaired		Provide the names of any waters to which you discharge for which there is an EPA approved or established TMDL, the name of the TMDL, and the pollutant(s) for which there is a TMDL		
	Surface water name:	Pollutant(s) causing the impairment:	Surface water name:	TMDL name:	Pollutant(s) for which there is a TMDL:

Impaired Waters

Describe the methods you used to complete the above table:

Are any of the surface waters to which you discharge designated by the state or tribal authority under its antidegradation policy as a Tier 2 (or Tier 2.5) water (water quality exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water) or as a Tier 3 water (Outstanding Natural Resource Water)? (See Appendix F).

☐ YES ☐ NO

If yes, name(s) of receiving water(s) and its designation (Tier 2, Tier 2.5 or Tier 3):

_____

VI. Chemical Treatment Information

Will you use polymers, flocculants, or other treatment chemicals at your construction site? ☐ YES ☐ NO

If yes, will you use cationic treatment chemicals at your construction site*? ☐ YES ☐ NO

If yes, have you been authorized to use cationic treatment chemicals by your applicable EPA Regional Office in advance of filing your NOI*?
☐ YES ☐ NO

If you have been authorized to use cationic treatment chemicals by your applicable EPA Regional Office, attach a copy of your authorization letter and include documentation of the appropriate controls and implementation procedures designed to ensure that your use of cationic treatment chemicals will not lead to a violation of water quality standards.

Please indicate the treatment chemicals that you will use:

* Note: You are ineligible for coverage under this permit unless you notify your applicable EPA Regional Office in advance and the EPA office authorizes coverage under this permit after you have included appropriate controls and implementation procedures designed to ensure that your use of cationic treatment chemicals will not lead to a violation of water quality standards.

VII. Stormwater Pollution Prevention Plan (SWPPP) Information

Has the SWPPP been prepared in advance of filing this NOI? ☐ YES ☐ NO

SWPPP Contact Information:

First Name, Middle Initial Last Name:

Organization Name:

Phone: - - Ext. Fax (optional): - -

E-mail:

VIII. Endangered Species Protection

Using the instructions in Appendix D of the CGP, under which criterion listed in Appendix D are you eligible for coverage under this permit (only check 1 box)?

☐ A ☐ B ☐ C ☐ D ☐ E ☐ F

Provide a brief summary of the basis for criterion selection listed in Appendix D (e.g., communication with U.S. Fish and Wildlife Service or National Marine Fisheries Service, specific study):

If you select criterion B, provide the Tracking Number from the other operator's notification of authorization under this permit:

If you select criterion C, you must attach a copy of your site map (see Part 7.2.6 of the permit), and you must answer the following questions:

What federally-listed species or federally-designated critical habitat are located in your "action area":

_____

What is the distance between your site and the listed species or critical habitat (miles):

_____

If you select criterion D, E, or F, attach copies of any letters or other communications between you and the U.S. Fish and Wildlife Service or National Marine Fisheries Service.

IX. Historic Preservation

Are you installing any stormwater controls as described in Appendix E that require subsurface earth disturbance? (Appendix E, Step 1) ☐ YES ☐ NO

If yes, have prior surveys or evaluations conducted on the site have already determined historic properties do not exist, or that prior disturbances have precluded the existence of historic properties? (Appendix E, Step 2) ☐ YES ☐ NO

If no, have you determined that your installation of subsurface earth-disturbing stormwater controls will have no effect on historic properties? (Appendix E, Step 3) ☐ YES ☐ NO

If no, did the SHPO, THPO, or other tribal representative (whichever applies) respond to you within the 15 calendar days to indicate whether the subsurface earth disturbances caused by the installation of stormwater controls affect historic properties? (Appendix E, Step 4) ☐ YES ☐ NO

If yes, describe the nature of their response:

- ☐ Written indication that adverse effects to historic properties from the installation of stormwater controls can be mitigated by agreed upon actions
- ☐ No agreement has been reached regarding measures to mitigate effects to historic properties from the installation of stormwater controls
- ☐ Other:

X. Certification Information

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 gathered and evaluated 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.

First Name, Middle Initial, Last Name: _____ _____ _____

Title: _____

Signature: _____ Date: ___/___/_____

Email: _____

Instructions for Completing EPA Form 3510-9

Notice of Intent (NOI) for Storm Water Discharges Associated with Construction Activity Under an NPDES General Permit

NPDES Form Date (2/16) This Form Replaces Form 3510-9 (11/08) Form Approved OMB No. 2040-0004

Who Must File an NOI Form

Under the provisions of the Clean Water Act, as amended (33 U.S.C. 1251 et. seq.; the Act), federal law prohibits stormwater discharges from certain construction activities to waters of the U.S. unless that discharge is covered under a National Pollutant Discharge Elimination System (NPDES) permit. Operator of construction sites where one or more acres are disturbed, smaller sites that are part of a larger common plan of development or sale where there is a cumulative disturbance of at least one acre, or any other site specifically designated by the Director, must submit an NOI to obtain coverage under an NPDES general permit. Each person, firm, public organization, or any other entity that meets either of the following criteria must file this form: (1) they have operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or (2) they have day-to-day operational control of those activities at the project necessary to ensure compliance with the permit conditions. If you have questions about whether you need a NPDES stormwater permit, or if you need information to determine whether EPA or your state agency is the permitting authority, refer to www.epa.gov/npdes/stormwater/cgp or telephone EPA's NOI Processing Center at (866) 352-7755.

Completing the Form

Obtain and read a copy of the 2012 Construction General Permit, viewable at www.epa.gov/npdes/stormwater/cgp. To complete this form, type or print uppercase letters, in the appropriate areas only. Please place each character between the marks (abbreviate if necessary to stay within the number of characters allowed for each item). Use one space for breaks between words, but not for punctuation marks unless they are needed to clarify your response. If you have any questions on this form, refer to www.epa.gov/npdes/stormwater/cgp or telephone EPA's NOI Processing Center at (866) 352-7755. Please submit the original document with signature in ink - do not send a photocopied signature.

Section I. Approval to Use Paper NOI Form

You must indicate whether you have been given approval by the EPA Regional Office to use a paper NOI. Note that you are not authorized to use this paper NOI form unless the Regional Office has approved its use. Verbal approval from the Regional Office is sufficient. Where you have obtained approval to use this form, indicate the reason you need to use this form, the name of the EPA Regional Office staff person who provided approval for use of this form, and the date that approval was provided. See www.epa.gov/npdes/stormwater/contacts for a list of EPA Regional Office contacts.

Section II. Permit Number

Provide the number of the permit under which you are applying for coverage (see Appendix B of the general permit for the list of eligible permit numbers).

Section III. Operator Information

Provide the legal name of the person, firm, public organization, or any other entity that operates the project described in this application. Refer to Appendix A of the permit for the definition of "operator". Provide the employer identification number (EIN from the Internal Revenue Service; IRS), also commonly referred to as your taxpayer ID. If the applicant does not have an EIN enter "NA" in the space provided. Also provide a point of contact, the operator's mailing address, telephone number, fax number (optional) and e-mail address (to be notified via e-mail of NOI approval when available). Correspondence for the NOI will be sent to this address.

If the NOI was prepared by someone other than the certifier (for example, if the NOI was prepared by the facility SWPPP contact or a consultant for the certifier's signature), include the full name, organization, phone number and email address of the NOI preparer.

Section IV. Project/Site Information

Enter the official or legal name and complete street address, including city, state, zip code, and county or similar government subdivision of the project or site. If the project or site lacks a street address, indicate the general location of the site (e.g., Intersection of State Highways 61 and 34). Complete site information must be provided for permit coverage to be granted.

Provide the latitude and longitude of your facility either in degrees, minutes, seconds; degrees, minutes, decimal; or degrees decimal format. The latitude and longitude of your facility can be determined in several different ways, including through the use of global positioning system (GPS) receivers, U.S. Geological Survey (U.S.G.S.) topographic or quadrangle maps, and EPA's web-based siting tools, among others. Refer to www.epa.gov/npdes/stormwater/cgp for further guidance on the use of these methodologies. For consistency, EPA requests that measurements be taken from the approximate center of the construction site. Applicants must specify which method they used to determine latitude and longitude. If a U.S.G.S. topographic map is used, applicants are required to specify the scale of the map used. If known, enter the horizontal reference datum for your latitude and longitude. The horizontal reference datum used on USGS topographic maps is shown on the bottom left corner of USGS topographic maps; it is also available for GPS receivers. If you use EPA's web siting tool, or if you are unsure of the horizontal reference datum for your site, please check the "unknown" box.

Indicate whether the project is in Indian country lands or located on a property of religious or cultural significance to an Indian tribe, and if so, provide the name of the Indian tribe associated with the area of Indian country (including name of Indian reservation, if applicable), or if not in Indian country, provide the name of the Indian tribe associated with the property.

Indicate whether you are seeking coverage under this permit as a "federal operator" as defined in Appendix A.

Enter the estimated construction start and completion dates using four digits for the year (i.e., 10/06/2012). Indicate to the nearest quarter acre the estimated area to be disturbed.

Indicate whether earth-disturbing activities have already commenced on your project/site. If earth-disturbing activities have commenced on your site because stormwater discharges from the site have been previously covered under a NPDES permit, you must provide the CGP Tracking Number or the NPDES permit number if coverage was under an individual permit.

Notice of Intent (NOI) for Storm Water Discharges Associated with Construction Activity Under an NPDES General Permit

NPDES Form Date (2/16) This Form Replaces Form 3510-9 (11/08) Form Approved OMB No. 2040-0004

Section V. Discharge Information

Indicate whether discharges from the site will enter into a municipal separate storm sewer system (MS4), as defined in Appendix A.

Also, indicate whether any surface waters (as defined in Appendix A) exist either on or within 50 feet from your site. Note that if "yes", you are required to comply with the requirement in Part 2.1.2.1 of the permit to provide natural buffers or equivalent sediment controls.

You must specify the names of any surface waters that receive stormwater directly from your site and/or from the MS4 to which you discharge. You must also specify the names of any surface waters that you discharge to that are listed as "impaired" as defined in Appendix A, including any waters for which there is an approved or established TMDL, and the pollutants for which the water is impaired or for which there is a TMDL. This information will be used to determine if the site discharges to an impaired waterbody, which triggers additional requirements in Part 3.2.2 of the permit. Applicants must specify which method they used to determine whether or not their site discharges to impaired waters. Also, if a TMDL has been approved or established, identify the title or reference of the TMDL document.

Indicate whether discharges from the site will enter into a surface water that is designated as a Tier 2, Tier 2.5, or Tier 3 water. A list of Tier 2, 2.5, and 3 waters is provided as Appendix F. If the answer is "yes", name all waters designated as Tier 2, Tier 2.5, or Tier 3 to which the site will discharge.

Section VI. Chemical Treatment Information

Indicate whether the site will use polymers, flocculants, or other treatment chemicals. Indicate whether the site will employ cationic treatment chemicals. If the answer is "yes" to either question, indicate which chemical(s) you will use. Note that you are not eligible for coverage under this permit to use cationic treatment chemicals unless you notify your applicable EPA Regional Office in advance and the EPA office authorizes coverage under this permit after you have included appropriate controls and implementation procedures designed to ensure that your use of cationic treatment chemicals will not lead to a violation of water quality standards. If you have been authorized to use cationic treatment chemicals by your applicable EPA Regional Office, attach a copy of your authorization letter and include documentation of the appropriate controls and implementation procedures designed to ensure that your use of cationic treatment chemicals will not lead to a violation of water quality standards. Examples of cationic treatment chemicals include, but are not limited to, cationic polyacrylamide (C-PAM), PolyDADMAC (POLYDIALLYLDIMETHYLAMMONIUM CHLORIDE), and chitosan.

Section VII. Stormwater Pollution Prevention Plan (SWPPP) Information

All sites eligible for coverage under this permit are required to prepare a SWPPP in advance of filing the NOI, in accordance with Part 7. Indicate whether the SWPPP has been prepared in advance of filing the NOI.

Indicate the street, city, state, and zip code where the SWPPP can be found. Indicate the contact information (name, organization, phone, fax (optional), and email) for the person who developed the SWPPP for this project.

Section VIII. Endangered Species Information

Using the instructions in Appendix D, indicate under which criterion (i.e., A, B, C, D, E, or F) of the permit the applicant is eligible with regard to protection of federally listed endangered and threatened species and designated critical habitat. A description of the basis for the criterion selected must also be provided.

If criterion B is selected, provide the Tracking Number for the other operator who had previously certified their eligibility under criterion A, C, D, E, or F. The Tracking Number was assigned when the operator received coverage under this permit, and is included in the notice of authorization.

If criterion C is selected, you must attach copies of your site map. See Part 7.2.6 of the permit for information about what is required to be in your site map. You must also specify the federally-listed species or federally-designated critical habitat that are located in the "action area" of the project, and provide the distance between the construction site and any listed endangered species or their critical habitat.

If criterion D, E, or F is selected, attach copies of any communications between you and the U.S. Fish and Wildlife Service and National Marine Fisheries Service.

Section IX. Historic Preservation

Use the instructions in Appendix E to complete the questions on the NOI form regarding historic preservation.

Section X. Certification Information

All applications, including NOIs, must be signed as follows:

For a corporation: By a responsible corporate officer. For the purpose of this Section, a responsible corporate officer means:

(i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

For a partnership or sole proprietorship: By a general partner or the proprietor, respectively; or

For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this Part, a principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of EPA). Include the name and title of the person signing the form and the date of signing. An unsigned or

undated NOI form will not be considered eligible for permit coverage.

Modifying Your NOI

If after submitting your NOI you need to correct or update any fields on this NOI form, you may do so by submitting a paper modification form, which you can obtain at the following link: http://www.epa.gov/npdes/pubs/cgp_modify.pdf

Paperwork Reduction Act Notice

Public reporting burden for this application is estimated to average 3.7 hours. This estimate includes time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. Send comments regarding the burden estimate, any other aspect of the collection of information, or suggestions for improving this form, including any suggestions which may increase or reduce this burden to: Chief, Information Policy Branch 2136, J.S. Environmental Protection, Agency, 1200 Pennsylvania Avenue, NW, Washington, D.C. 20460. Include the OMB control number on any correspondence. Do not send the completed form to this address.

Submitting Your Form

Submit your NOI form by mail to one of the following addresses:

For Regular U.S. Mail Delivery:
Stormwater Notice Processing Center
Mail Code 4203M
U.S. EPA
1200 Pennsylvania Avenue, NW
Washington, DC 20460

For Overnight/Express Mail Delivery:
Stormwater Notice Processing Center
EPA East Building - Room 7420
U.S. EPA
1201 Constitution Avenue, NW
Washington, DC 20004

Visit this website for instructions on how to submit electronically:
www.epa.gov/npdes/stormwater/cgpenoi

This Form Replaces Previous Form 2040-0086 (Please See Instructions Before Completing This Form)

NPDES FORM 3510-7

EPA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460
NOTICE OF TERMINATION (NOT) OF COVERAGE UNDER A NPDES GENERAL PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY

Form Approved.
OMB No. 2040-0086

Submission of this Notice of Termination (NOT) constitutes notice that the party identified in Section B of this form is no longer authorized to discharge stormwater associated with industrial activity under the NPDES program for the facility identified in Section C of this form. All necessary information must be included on this form. Refer to the instructions at the end of this form.

A. Permit Number:

1. NPDES Permit Tracking Number:

2. Reason for Termination (check one only):
   - a. ☐ You transferred operational control to another operator.
   - b. ☐ You no longer have a stormwater discharge associated with industrial activity subject to regulation under the NPDES program, and you have already implemented necessary sediment and erosion controls as required by Part 2.1.2.5.
   - c. ☐ You are a Sector G, H, or J facility and you have met the applicable termination requirements.
   - d. ☐ You obtained coverage under an alternative NPDES permit.

B. Facility Operator Information

1. Name:

2. IRS Employer Identification Number (EIN): –

3. Mailing Address:

a. Street:

b. City: c. State: d. Zip Code: -

e. Phone: - - f. Fax (optional): - - g. E-mail: _____

C. Facility Information

1. Facility Name:

2. Location Address:

a. Street

b. City:

c. County or similar government subdivision: d. State: e. Zip Code: -

D. Certifier Name and Title

I certify under penalty of law that I have met at least one of the reasons for terminating permit coverage listed in Section A.2 above. I understand that by submitting this Notice of Termination, I am no longer authorized to discharge stormwater associated with industrial activity under this general permit, and that discharging pollutants in stormwater associated with industrial activity to waters of the United States is unlawful under the Clean Water Act where the discharge is not authorized by a NPDES permit. I also understand that the submittal of this Notice of Termination does not release an operator from liability for any violations of this permit or the Clean Water Act.

Print Name:

Title:

Signature: _____ Date:

E-mail: _____

Instructions for Completing the Notice of Termination for Stormwater Discharges Associated with INDUSTRIAL ACTIVITY under the Multi-Sector General Permit (MSGP)

Who May File Notice of Termination (NOT) Form

Permittees currently covered by EPA's NPDES Stormwater Multi-Sector General Permit may submit a Notice of Termination (NOT) form. You must submit an NOT within 30 days after one or more of the following conditions have been met:

- a new owner or operator has assumed responsibility for the facility; or
- you have ceased operations at the facility and there are not or no longer will be discharges of stormwater associated with industrial activity from the facility, and you have already implemented necessary sediment and erosion controls as required by Part 2.1.2.5;
- you are a Sector G, H, or J facility and you have met the applicable termination requirements; or
- you have obtained coverage under an individual or alternative general permit for all discharges required to be covered by an NPDES permit.

See the MSGP Part 1.4 for more information.

Where to File NOT form

EPA encourages you to complete the NOT form online, via the Internet. The Electronic Notice of Intent System (eNOI) is found at www.epa.gov/npdes/eNOI. If you cannot access the electronic system, you must send the NOT to the address listed below.

NOTs sent regular mail:
Stormwater Notice of Termination (4203M)
USEPA
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460

NOTs sent overnight/express
Stormwater Notice of Termination
US EPA East Building, Rm 7420
1201 Constitution Avenue, NW
Washington, D.C. 20004
(202) 564-9545

Completing the Form

To complete this form, type or print in uppercase letters in the appropriate areas only. Please make sure you complete all questions. Make sure you make a photocopy for your records before you send the completed original form to the address above. Please use ink when you sign the original document – DO NOT send copies. If you have any questions about this form, you may call the EPA's Stormwater Notice Processing Center at (866) 352-7755.

Section A. Permit Information

1. Enter the NPDES tracking number assigned by EPA's Stormwater Notice Processing Center to the facility. If you do not know the tracking number, you can find the tracking number assigned to your previous NOI on EPA's NOI Search website (www.epa.gov/npdes/noisearch).

2. Indicate your reason for submitting this Notice of Termination by checking the appropriate box (see MSGP Part 1.4 for more information).

Section B. Facility Operator Information

1. Give the legal name of the person, firm, public organization, or any other entity that operates the facility described in this application. The operator of the facility is the legal entity which controls the facility's operation, rather than the plant or site manager. Do not use a colloquial name.

2-3. Enter the facility operator's IRS Employer Identification Number (also know as the tax payer ID number). Enter the complete mailing address, email address and telephone number of the operator. This address will be used for any future correspondence between EPA and the facility operator.

Section C. Facility Information

1-2. Enter the facility's official or legal name and complete address, including city, county or similar government subdivision, state, and ZIP code.

Section D. Certification

Certification statement and signature (see Section B.11 of Appendix B of the MSGP for more information). Enter certifier's printed name, title and email address. Sign and date the form. Federal statutes provide for severe penalties for submitting false information on this application form. Federal regulations require this application to be signed as follows:

For a corporation: by a responsible corporate officer, which means: (i) president, secretary, treasurer, or vice-president of the corporation in charge of the principal business function, or any other person who performs similar policy or decision making functions, or (ii) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

For a partnership or sole proprietorship: by a general partner or the proprietor; or

For a municipality State, Federal, or other facility: by either a principal executive office or ranking elected official.

Paperwork Reduction Act Notice

Public reporting burden for this application is estimated to average 0.5 hours per application, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate, any other aspect of the collection of information, or suggestions for improving this form, inclucing any suggestions which may increase or reduce this burden to: Director, Office of Environmental Information Services, Collection Services Division (2823), USEPA, 1200 Pennsylvania Avenue, NW, Washington, DC 20460. Include the OMB control number of this form on any correspondence. Do not send the completed NOT form to this address.

APPENDIX C

CITY OF KENNER
CONSTRUCTION POLLUTION PREVENTION PLAN
NPDES GENERAL PERMIT APPLICATION FORM
AND WEEKLY INSPECTION CHECK LIST FORM

CITY OF KENNER
CONSTRUCTION POLLUTION PREVENTION PLAN
NPDES GENERAL PERMIT

SITE DESCRIPTION

Project Name and Location: (Latitude/Longitude or Address):		City of Kenner Department Name:	
		Project No.:	

DESCRIPTION OF NATURE OF CONSTRUCTION ACTIVITY:

SEQUENCE OF MAJOR CONSTRUCTION ACTIVITIES:

1.	7.
2.	8.
3.	9.
4.	10.
5.	11.
6.	12.

Estimated Final Runoff Coefficient (Post-Construction)	C =	Existing Soil Types at Site	
Name of Receiving Water Body: (Use DEQ Water Quality Segments)			

Attach Site Map Indicating:

- ☐ Drainage Patterns
- ☐ Approximate Slopes after Grading
- ☐ Areas of Soil Disturbed
- ☐ Outline of Areas not Disturbed
- ☐ Location of Structural and Non-Structural Controls
- ☐ Location of Stabilization Practices
- ☐ Surface Waters
- ☐ Stormwater Discharge Points

A COPY OF THIS PLAN MUST BE KEPT ON CONSTRUCTION SITE

CITY OF KENNER
CONSTRUCTION POLLUTION PREVENTION PLAN
NPDES GENERAL PERMIT

SITE DESCRIPTION

Project Name:

Project No.:

EROSION AND SEDIMENT CONTROLS

STABILIZATION PRACTICES: Check those that apply and briefly discuss schedule of implementation.

- ☐ Temporary Seeding
- ☐ Permanent Seeding
- ☐ Tree Protection
- ☐ Mulching
- ☐ Geotextile
- ☐ Preserve Mature Vegetation
- ☐ Sod
- ☐ Vegetative Buffer Strip
- ☐ Other _____

Schedules:

BEGIN ALL STABILIZATION WITHIN 14 DAYS OF DISTURBED EARTH

STRUCTURAL PRACTICES: Check those that apply and briefly discuss.

- ☐ Silt Fence
- ☐ Check Dam
- ☐ Storm Drain Inlet Protection
- ☐ Temp. Sediment Basin
- ☐ Earth Dike
- ☐ Subsurface Drains
- ☐ Rock Outlet Protection
- ☐ Permanent Sediment Basin
- ☐ Drainage Swale
- ☐ Pipe Slope Drain
- ☐ Reinforced Soil Retaining System
- ☐ Sediment Trap
- ☐ Level Spreader
- ☐ Gabions

DESCRIBE EACH BRIEFLY:

•Sediment Basin (3600 CF/Acre) or Equivalent Required for All Sites >10 Acres Disturbed Earth.
•Silt Fence Required on all Side Slopes or Downslope Boundaries.

A COPY OF THIS PLAN MUST BE KEPT ON CONSTRUCTION SITE.

CITY OF KENNER
CONSTRUCTION POLLUTION PREVENTION PLAN
NPDES GENERAL PERMIT

CONTROLS

Project Name:	Project No.:

STORMWATER MANAGEMENT

Describe Stormwater Management Measures installed during construction to control pollutants after construction completed. Measures may include:

- ☐ Stormwater Detention Structures
- ☐ Stormwater Retention Structures
- ☐ Flow Attenuation by Natural Vegetation
- ☐ Velocity Dissipation Devices

A COPY OF THIS PLAN MUST BE KEPT ON CONSTRUCTION SITE.

CITY OF KENNER
CONSTRUCTION POLLUTION PREVENTION PLAN
NPDES GENERAL PERMIT

CONTROLS

Project Name:	Project No.:

OTHER CONTROLS

WASTE DISPOSAL:
Describe Anticipated Waste Material and Disposal Method.

Describe Anticipated Hazardous Wastes and Disposal Method.

Describe Method for Sanitary Waste Disposal.

VEHICLE TRACKING: Describe method for minimization of off-site vehicle sediment and dust

COMPLIANCE WITH STATE AND LOCAL PLANS:
This plan was developed in accordance with Parish requirements for stormwater management established in the Stormwater Management Plan. There are no other applicable State or Federal requirements for sediment and erosion control plans (or permits), or stormwater management site plans (or permits).

A COPY OF THIS PLAN MUST BE KEPT ON CONSTRUCTION SITE

CITY OF KENNER
CONSTRUCTION POLLUTION PREVENTION PLAN
NPDES GENERAL PERMIT

MAINTENANCE/INSPECTION PROCEDURES

Project Name:	Project No.:

CHECK APPROPRIATE MAINTENANCE AND INSPECTION PROCEDURES (cross out those that do not apply):

- ☐ Less than _____ acres of the site will be denuded at one time.
- ☐ All control measures will be inspected at least once each week and following any storm event of 0.5 inches or greater.
- ☐ All measures will be maintained in good working order; if a repair is necessary, it will be initiated within 24 hours of report.
- ☐ Built up sediment will be removed from silt fence when it has reached one-third the height of the fence.
- ☐ Silt fence will be inspected for depth of sediment, tears, to see if the fabric is securely attached to the fence posts, and to see that the fence posts are firmly in the ground.
- ☐ The sediment basin will be inspected for depth of sediment, and built up sediment will be removed when it reaches 10 percent of the design capacity or at the end of the job.
- ☐ Temporary and permanent seeding and planting will be inspected for bare spots, washouts, and healthy growth.
- ☐ A maintenance inspection report will be made after each inspection. A copy of the report form to be completed by the inspector is attached.
- ☐ Owner will be responsible for inspections and filling out the inspection and maintenance report. Contractor will be responsible for maintenance and repair activities.
- ☐ Others:

_____

_____

NONSTORMWATER DISCHARGES

It is expected that the following nonstormwater discharges will occur from the site during the construction period:

- ☐ Water from water line flushings.
- ☐ Pavement wash waters (where no spills or leaks of toxic or hazardous materials have occurred).
- ☐ Uncontaminated groundwater (from dewatering excavation).

A COPY OF THIS PLAN MUST BE KEPT ON CONSTRUCTION SITE

CITY OF KENNER
CONSTRUCTION POLLUTION PREVENTION PLAN
NPDES GENERAL PERMIT

INVENTORY FOR POLLUTION PREVENTION PLAN

Project Name:	Project No.:

The materials or substances listed below are expected to be present on site during construction:

- ☐ Concrete
- ☐ Detergents
- ☐ Paints (enamel and latex)
- ☐ Metal Studs
- ☐ Concrete
- ☐ Tar
- ☐ Others _____

- ☐ Fertilizers
- ☐ Petroleum Based Products
- ☐ Cleaning Solvents
- ☐ Wood
- ☐ Masonry Block
- ☐ Roofing Shingles
- ☐ Pesticides
- ☐ Herbicides
- ☐ Others _____

SPILL PREVENTION

Material Management Practices

The following are the material management practices that will be used to reduce the risk of spills or other accidental exposure of materials and substances to stormwater runoff:

Good Housekeeping:

The following good housekeeping practices will be followed on site during the construction project:

- ☐ An effort will be made to store only enough product required to do the job.
- ☐ All materials stored on site will be stored in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure.
- ☐ Products will be kept in their original containers with the original manufacturer's label.
- ☐ Substances will not be mixed with one another unless recommended by the manufacturer.
- ☐ Whenever possible, all of a product will be used up before disposing of the container.
- ☐ Manufacturer's recommendations for proper use and disposal will be followed.
- ☐ The site superintendent will inspect daily to ensure proper use and disposal of materials on site.

A COPY OF THIS PLAN MUST BE KEPT ON CONSTRUCTION SITE.

CITY OF KENNER
CONSTRUCTION POLLUTION PREVENTION PLAN
NPDES GENERAL PERMIT

SPILL PREVENTION (continued)

Project Name:	Project No.:

Hazardous Products:

These practices are used to reduce the risks associated with hazardous materials:

- ☐ Products will be kept in original containers unless they are not resealable.
- ☐ Original labels and material safety data will be retained; they contain important product information.
- ☐ If surplus product must be disposed of, manufacturers' or local and State recommended methods for proper disposal will be followed.

Product Specific Practices

The following product specific practices will be followed on site:

Petroleum Products:

All on site vehicles will be monitored for leaks and receive regular preventive maintenance to reduce the change of leakage. Petroleum products will be stored in tightly sealed containers which are clearly labeled. Any asphalt substances used on site will be applied according to the manufacturer's recommendations.

Fertilizers:

Fertilizers used will be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer will be worked into the soil to limit exposure to stormwater. Storage will be in a covered shed. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills.

Paints:

All containers will be tightly sealed and stored when not required for use. Excess paint will not be discharged to the storm sewer system but will be properly disposed of according to manufacturers' instructions or State and local regulations.

Concrete Trucks:

The washout from a concrete truck should be disposed of into:

- A designated area which will later be backfilled: a slurry pit.
- An area where the concrete wash can harden, be broken up, and then put in the dumpster.
- A location which is not subject to surface water runoff, and more than 50 feet away from a storm drain, open ditch, or receiving water.

CITY OF KENNER
CONSTRUCTION POLLUTION PREVENTION PLAN
NPDES GENERAL PERMIT

SPILL CONTROL PRACTICES

Project Name:	Project No.:

In addition to the good housekeeping and material management practices discussed in the previous sections of this plan, the following practices will be followed for spill prevention and cleanup:

- Manufacturers' recommended methods for spill cleanup will be clearly posted and site personnel will be made aware of the procedures and the location of the information and cleanup supplies.
- Materials and equipment necessary for spill cleanup will be kept in the material storage area on site. Equipment and materials will include but not be limited to brooms, dust pans, mops, rags, gloves, goggles, kitty litter, sand, sawdust, and plastic and metal trash containers specifically for this purpose.
- All spills will be cleaned up immediately after discovery.
- The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- Spills of toxic or hazardous material will be reported to the appropriate State or local government agency, regardless of the size.
- The spill prevention plan will be adjusted to include measures to prevent this type of spill from reoccurring and how to clean up the spill if there is another one. A description of the spill, what caused it, and the cleanup measures will also be included.
- The site superintendent (Name _____), responsible for the day-to-day site operations, will be the spill prevention and cleanup coordinator. He will designate at least three other site personnel who will receive spill prevention and cleanup training. These individuals will each become responsible for a particular phase of prevention and cleanup. The names of responsible spill personnel will be posted in the material storage area and in the office trailer on site.

POLLUTION PREVENTION PLAN CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under by direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated 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.

Signed: _____

Dated: _____

A COPY OF THIS PLAN MUST BE KEPT ON CONSTRUCTION SITE

CITY OF KENNER
CONSTRUCTION POLLUTION PREVENTION PLAN
NPDES GENERAL PERMIT

CONTRACTOR'S CERTIFICATION

Project Name:	Project No..

I certify under penalty of law that I understand the terms and conditions of the general National Pollutant Discharge Elimination System (NPDES) permit that authorizes the stormwater discharges associated with industrial activity from the construction site identified as part of this certification.

Signature	Company Name	Responsible for
By: _____ Title: _____ Date: _____ By: _____ Title: _____ Date: _____ By: _____ Title: _____ Date: _____ By: _____ Title: _____ Date: _____		General Contractor

A COPY OF THIS PLAN MUST BE KEPT ON CONSTRUCTION SITE

Form 1

CITY OF KENNER
CONSTRUCTION POLLUTION PREVENTION PLAN
NPDES GENERAL PERMIT

WEEKLY VISUAL INSPECTION CHECKLIST

Instructions: Complete this record for each weekly inspection. Place an X in the appropriate box for each item. If any response requires an explanation, do so in the Observations/Comments space. Additional comments should be included at the bottom of this form or attached on a separate sheet of paper.

Facility Name: _____ Date: _____

Location: _____ Inspector: _____

Days Since Last Rainfall: _____ Amount of Last Rainfall: _____ inches

Best Management Practices (BMPs) to be followed at this facility include the items indicated by each box marked with an X.

Silt Fence	☐	Check Dams	☐	Vehicle Tracking Control	☐
Seeding	☐	Hay Bales	☐	Sediment Basins	☐
Sod	☐	Inlet Protection	☐		
Earth Dikes	☐				
Sediment Trap	☐				
Other: _____	☐				

Weekly Visual Inspection Results:

	YES	NO	NA	OBSERVATIONS/COMMENTS
[1] Does it appear that the BMPs applicable to the site (listed above) are being followed? If not, describe areas of noncompliance.	☐	☐	☐	
[2] Are materials stored outside exposed to stormwater?	☐	☐	☐	
[3] Are stabilization practices being followed?	☐	☐	☐	
[4] Are listed structural controls performing properly?	☐	☐	☐	
[5] Are waste disposal methods practiced?	☐	☐	☐	
[6] Are on-site chemicals and materials properly stored to eliminate exposure to stormwater?	☐	☐	☐	
[7] Are off-site vehicle tracking measures practiced?	☐	☐	☐	
[8] Is area free of litter?	☐	☐	☐	
[9] Are there any drums or other containers open in which precipitation could enter?	☐	☐	☐	
[10] Does it appear that excessive amounts of fertilizers, pesticides, herbicides, or fungicides have been used?	☐	☐	☐	
[11] Do the impervious areas of the facility, such as parking garage, streets, etc. need to be street swept?	☐	☐	☐	
[12] Does all mechanical equipment on the facility grounds appear to be in good shape with no visible signs of leakage?	☐	☐	☐	
[13] Are there any visible problems with any of the four drainage structures?	☐	☐	☐	
[14] Are waste storage areas clean and well maintained?	☐	☐	☐	
[15] Are there areas of erosion that need to be addressed?	☐	☐	☐	

Additional Comments: _____

Form 2

CITY OF KENNER
CONSTRUCTION POLLUTION PREVENTION PLAN
NPDES GENERAL PERMIT

SWPPP INSPECTION AND RESPONSE RECORD

Facility Name: _____ Date: _____

Location: _____ Inspector: _____

Date	Performed By	Observations	Actions Taken

Form 3

CITY OF KENNER
CONSTRUCTION POLLUTION PREVENTION PLAN
NPDES GENERAL PERMIT

PLAN REVIEW FORM

A thorough review of the SWPPP was performed and any necessary revisions were made or are currently being made.

Facility Name: _____ Date: _____

Location: _____ Inspector: _____

Date of Review	Signature of Person Reviewing the Plans	Signature of Second Person Reviewing the Plans

APPENDIX D

**STORM WATER MANAGEMENT FOR CONSTRUCTION ACTIVITIES:
DEVELOPING POLLUTION PREVENTION PLANS AND
BEST MANAGEMENT PRACTICES – SUMMARY GUIDANCE
EPA MANUAL**

United States
Environmental Protection
Agency

Office of Water
(EN-336)

EPA 833-R-92-001
October 1992

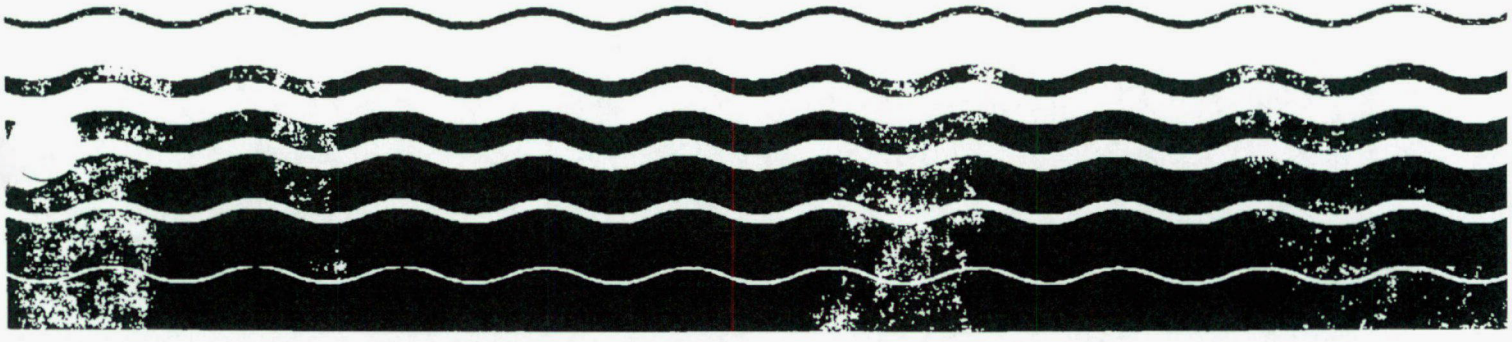
EPA

Storm Water Management For Construction Activities

Developing Pollution Prevention Plans And Best Management Practices

SUMMARY GUIDANCE

★1992★
THE YEAR OF
CLEAN WATER
Celebration + Commitment



FOREWORD

This booklet provides summary guidance on the development of storm water pollution prevention plans and identification of appropriate Best Management Practices (BMPs) for for construction activities. It provides technical assistance and support for construction activities subject to pollution prevention requirements established under National Pollutant Discharge Elimination System (NPDES) permits for storm water point source discharges.

EPA's storm water program significantly expands the scope and application of the existing NPDES permit system for municipal and industrial process wastewater discharges. It emphasizes pollution prevention and reflects a heavy reliance on BMPs to reduce pollutant loadings and improve water quality. This booklet provides summary guidance in both of these areas.

The document summarized here was issued in support of EPA regulations and policy initiatives involving the development and implementation of a National storm water program. The document is Agency guidance only. It does not establish or affect legal rights or obligations. Agency decisions in any particular case will be made applying the laws and regulations on the basis of specific facts when permits are issued or regulations promulgated.

The document and this booklet will be revised and expanded periodically to reflect additional pollution prevention information and data on treatment effectiveness of BMPs. Comments from users will be welcomed. Send comments to U.S. EPA, Office of Wastewater Enforcement and Compliance, 401 M Street, SW, Mail Code EN-336, Washington, DC 20460.

Construction Guidance Executive Summary

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Construction Guidance Executive Summary

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A Brief Guide to Requirements for Developing and Implementing Pollution Prevention Plans for Construction Activities

Storm water runoff is part of the natural hydrologic cycle. However, human activities, particularly urbanization, can alter natural drainage patterns and add pollutants to the rainwater and snowmelt that run off the earth's surface and enter our Nation's rivers, lakes, streams, and coastal waters. In fact, recent studies have shown that storm water runoff is a major source of pollutants impairing our sport and commercial fisheries, restricting swimming, and affecting the navigability of many of our Nation's waters.

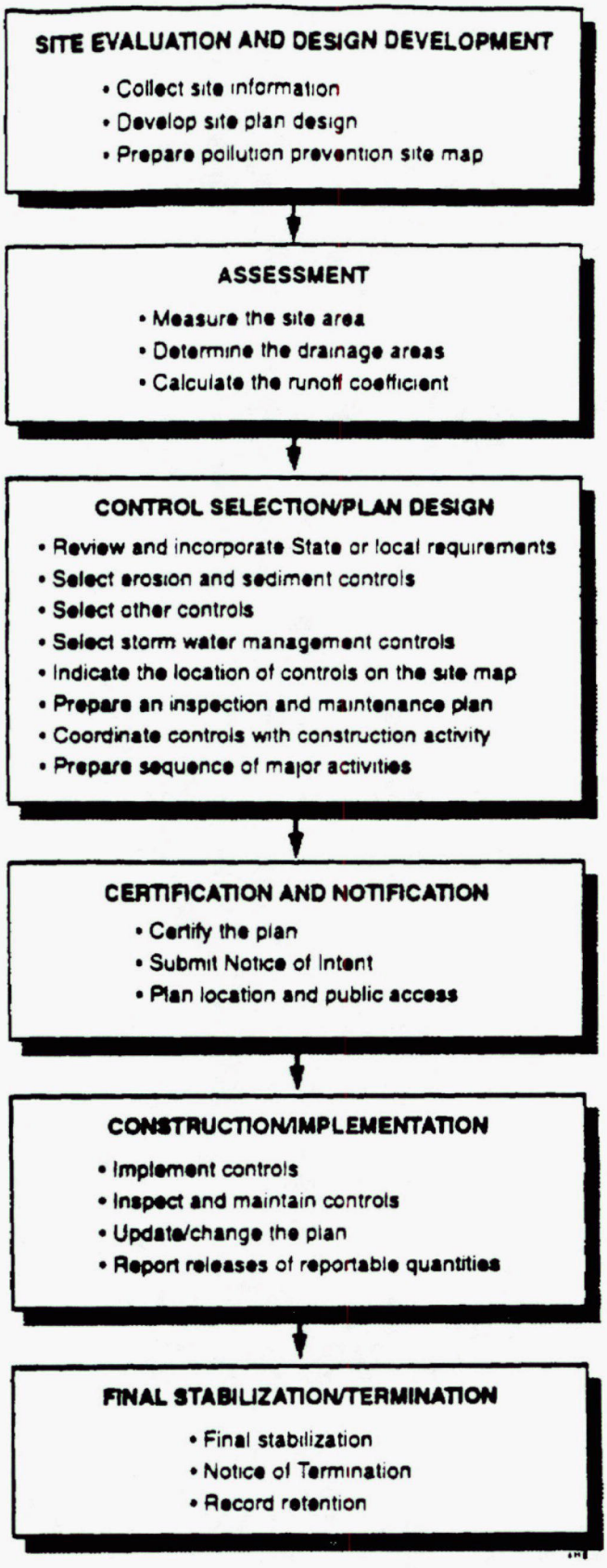
Recognizing the importance of this problem, Congress directed the U.S. Environmental Protection Agency (EPA) to develop a Federal program under the Clean Water Act to regulate certain high priority storm water sources. The issuance of storm water discharge permits under the National Pollutant Discharge Elimination System (NPDES) is a major part of the Agency's efforts to restore and maintain the Nation's water quality. Discharges of storm water runoff from construction sites which disturb 5 or more acres of land must now be covered by an NPDES permit. To deal with the thousands of construction projects which are now required to be covered by storm water permits, EPA strongly encourages the use of general permits. Under the NPDES program, a general permit authorizes discharges from a number of sources. To specifically address storm water discharges from construction sites located in the States and territories that have not been delegated NPDES permitting authority, EPA issued **NPDES General Permits for Storm Water Discharges from Construction Sites** in the September 9 and September 25, 1992, Federal Register. (A complete list of these States and territories to which EPA's permits apply may be found on page 17 of this document.)

The purpose of this document is to describe the steps which must be completed in order for a construction site to comply with the pollution prevention plan requirements contained in EPA's general permits. A detailed manual on how to develop and implement your pollution prevention plan is available from the National Technical Information Service (NTIS). The manual, titled *Storm Water Management for Construction Activities: Developing Pollution Prevention Plans and Best Management Practices*, provides much more specific information than this brief guide. Instructions for ordering the detailed manual and a listing of other references that you may find useful can be found on page 17 of this guide. It is important to note that permit requirements will vary from State to State and permit to permit; therefore, you should read your permit carefully.

Overview Of Pollution Prevention Plan Requirements

Under the *NPDES General Permits for Storm Water Discharges From Construction Sites*, EPA requires the development and implementation of a pollution prevention plan. A pollution prevention plan for construction is designed to reduce pollution at the construction site, before it can cause environmental problems. Many of the practices and measures required for the pollution prevention plan represent standard operating procedure at many construction sites. Storm water management controls, erosion and sediment controls, inspection and maintenance have all been used at a number of construction projects.

This guide is organized according to the phases of the pollution prevention planning and implementation process. A set of checklists and a model plan at the end of the document are provided to further clarify requirements. As shown on the chart on the following page, pollution prevention planning requirements have been organized to provide you with a step-by-step process for ensuring that pollutants are not making their way into the storm water discharges from your site. The six major phases of the process are (1) site evaluation and design development, (2) assessment, (3) control selection and plan design, (4) certification and notification, (5) construction/implementation, and (6) final stabilization/termination. In addition, all permit holders must meet a number of general requirements.



SIX PHASES FOR DEVELOPING AND IMPLEMENTING CONSTRUCTION STORM WATER POLLUTION PREVENTION PLANS

Site Evaluation and Design Development Phase

The first phase in a preparing a Storm Water Pollution Prevention Plan for a construction project is to define the characteristics of the site and the type of construction that will be occurring. This phase is broken down into four requirements: (A) collect site information, (B) develop site design, (C) describe construction activity, and (D) prepare pollution prevention site map.

(A) Collect Site Information

Prior to design, it is necessary to collect information about the existing conditions at the construction site. The EPA General Permits require that the Pollution Prevention Plan include the following information:

- **Existing soils information**—Where information exists which describes the soils at the construction site, this data must be included in the pollution prevention plan. Soils data may include soil type, depth of the soil layer, soil texture, infiltration (percolation rate), or whether the soils are susceptible to erosion. Sources of soils information could include soil borings or other geotechnical investigations. Soil Conservation Service (SCS) soil surveys may also be used, and SCS surveys typically indicate whether a soil is erodible.

- **Existing runoff water quality**—If storm water runoff from the proposed construction site has been sampled and analyzed for the presence of any pollutant (e.g., total suspended solids), then the results of the analyses must be included in the pollution prevention plan. In most cases, existing runoff water quality data are not available for a specific site, particularly an undeveloped site. However, if the construction site is on or adjacent to an existing industrial facility, that facility may have collected runoff water quality data to satisfy another permit. If there are no existing data on the quality of runoff from the site, then it is not necessary to collect or analyze storm water samples for the Construction General Permit. Runoff water quality data may sometimes be available from your State or local government, e.g., the local municipal separate storm sewer authority. You may also be able to obtain runoff water quality information from the U.S. Geological Survey (USGS), State, or local watershed protection agencies.

- **Location of surface waters on the construction site**—If the construction site includes or is adjacent to surface waters then the location and extent of the surface waters must be determined so that they may be indicated on the pollution prevention site map. Surface waters include lakes, rivers, streams (both perennial and intermittent), and wetlands.

- **Name of receiving water**—Identify the name and location of the body of water, e.g., stream, creek, run, wetland, river, lake, bay, ocean, that will receive the runoff from the construction site. If the receiving water is a tributary include the name of the ultimate receiving body of water if possible. If the site drains into a Municipal Separate Storm Sewer System, identify the system and indicate the receiving water to which the system discharges. This information is usually available from county, State, or USGS maps.

(B) Develop Site Plan Design

Once the information on the existing site conditions is collected, it is possible to develop a site plan design. In addition to the goals and objectives for the facilities being constructed, the designers should also consider objectives which will limit the amount of pollution in storm water runoff from the construction site, such as:

- Disturb the smallest area possible.

- Avoid disturbance of sensitive areas such as:
  - Steep and/or unstable slopes
  - Surface waters, including wetlands
  - Areas with soils susceptible to erosion
  - Existing drainage channels.

- Identify areas to be preserved or left as open space.

(C) Describe Construction Activity

In preparing your plan, you must (1) describe the purpose or goal of the construction project (e.g., a single family residential development, a multistory office building, or a highway interchange) and (2) list the soil disturbing activities necessary to complete the project. (Soil disturbing activities might include clearing, excavation and stockpiling, rough grading, final or finish grading, preparation for seeding or planting, excavation of trenches, demolition, etc.).

(D) Prepare Pollution Prevention Site Map

The final step of the site evaluation and design development phase is to combine the information collected into a comprehensive pollution prevention site map. The starting point for the pollution prevention site map should be the site plan prepared for the construction design. The map for the construction site should be drawn to scale with topography. The scale of the map should be small enough so that you can easily distinguish important features such as drainage swales and control measures that will be added later. In addition to the location of surface waters, the following information must be included on the site map:

- **Slopes after grading**—Indicate what the location and steepness of slopes will be after grading.

- **Disturbed areas**—Indicate the areas of soil disturbing activities or the total area of the site where soil will be disturbed. Also draw an outline of areas that will not be disturbed.

- **Drainage patterns/discharge points**—Indicate the drainage patterns of the site after the major grading activities and the location of the points where storm water will discharge from the site.

  - To illustrate the drainage pattern of the site, use topographic contour lines or arrows to indicate the direction runoff will flow.

  - Show the location of swales or channels. If there is a new or proposed underground storm drain system on the site, this should be indicated on the Storm Water Pollution Prevention Plan site map as well.

ASSESSMENT PHASE

Once the characteristics of the site and the construction have been defined, the next phase in developing a Storm Water Pollution Prevention Plan is to measure the size of the land disturbance and estimate the impact the project will have on storm water runoff from the site based on information collected in Phase 1. Three things should be done to assess the project: (A) measure the site area, (B) measure the drainage areas, and (C) calculate the runoff coefficient.

(A) Measure the Site Area

The General Permit requires that you indicate in the Storm Water Pollution Prevention Plan estimates of the total site area and the area that will be disturbed. The total site area estimate must represent the size of the parcel of property or right of way on which the construction is occurring. The disturbed area estimate must represent the portion of the total site area which will be disturbed over the course of the construction project. These values can be measured from the pollution prevention site map which is drawn to scale.

(B) Determine the Drainage Areas

Although the size of each drainage area for each point where concentrated flow will leave the site is not required to be included in the pollution prevention plan, this information will help you select and design the sediment control and storm water management measures for your project in the next phase of the plan. Drainage areas are portions of the site where runoff will flow in one particular direction or to a particular discharge point. Use the drainage patterns indicated on the site map to determine the drainage areas.

(C) Calculate the Runoff Coefficient

The General Permit requires that you estimate the runoff coefficient of the site after construction is complete. The runoff coefficient is an estimate of the fraction of total rainfall that will appear as runoff. For example, the "c" value of lawn area is 0.2, which indicates that only 20 percent of the water that falls on grassed areas will end up as surface runoff. In contrast, the "c" value of a paved area can be 0.9 or higher, indicating that 90 percent of the rain falling on this type of surface will run off. Runoff coefficients for sites with more than one land use are estimated by calculating a weighted average (based upon area) of the runoff coefficients for each land use. Table 1 lists runoff coefficients for various land uses.

TABLE 1. TYPICAL "C" VALUES (ASCE 1960)

Description of Area	Runoff Coefficients
Business	
Downtown Areas	0.70-0.95
Neighborhood Areas	0.50-0.70
Residential	
Single-family areas	0.30-0.50
Multiunits, detached	0.40-0.60
Multiunits, attached	0.60-0.75
Residential (suburban)	0.25-0.40
Apartment dwelling areas	0.50-0.70
Industrial	
Light Areas	0.50-0.80
Heavy areas	0.60-0.90
Parks, cemeteries	0.10-0.25
Playgrounds	0.20-0.35
Railroad yard areas	0.20-0.40
Unimproved areas	0.10-0.30
Streets	
Asphalt	0.70-0.95
Concrete	0.80-0.95
Brick	0.70-0.85
Drives and walks	0.75-0.85
Roofs	0.75-0.95
Lawns - course textured soil (greater than 85% sand)	
Slope: Flat, 2%	0.05-0.10
Average, 2-7%	0.10-0.15
Steep, 7%	0.15-0.20
Lawns - fine textured soil (greater than 40% clay)	
Slope: Flat, 2%	0.13-0.17
Average, 2-7%	0.18-0.22
Steep, 7%	0.25-0.35

CONTROL SELECTION/PLAN DESIGN PHASE

After you have collected the information and made measurements, the next phase is to design a plan to prevent and control pollution of storm water runoff from your construction site. To complete the Storm Water Pollution Prevention Plan, (A) review and incorporate State and local requirements, (B) select erosion and sediment controls, (C) select other controls, (D) select storm water management controls, (E) indicate the location of controls in the site map, (F) prepare an inspection and maintenance plan, (G) prepare a description of controls, and (H) prepare a sequence of major activities. The following subsections explain how the controls you select should be described in the Storm Water Pollution Prevention Plan.

(A) Review and Incorporate State and Local Requirements

If the construction site is located in a State or municipality which implements its own separate storm water management or erosion and sediment control programs, then the pollution prevention plan prepared for compliance with EPA's NPDES General Permit must also comply with the State or local requirements. Therefore, prior to designing the pollution prevention plan, you must first determine what requirements, if any, exist for sediment and erosion site plans, site permits or storm water management site plans, or site permits. Where these requirements do exist, then they must be carefully reviewed and incorporated into the plan design.

Consideration of State and local requirements in the plan design phase is necessary because the permit requires that the permittee provide a certification that the pollution prevention plan reflects the requirements applicable to protecting surface water resources in sediment and erosion site plans or permits, or storm water management site plans or site permits approved by State or local officials.

(B) Select Erosion and Sediment Controls

The Storm Water Pollution Prevention Plan must include a description of the measures to be used for erosion and sediment controls throughout the construction project. These controls include stabilization measures for disturbed areas and structural controls to divert runoff and remove sediment. Erosion and sediment controls are implemented during the construction period to prevent and/or control the loss of soil from the construction site into the receiving waters. Your selection of the most appropriate erosion and sediment controls depends on a number of factors, but is most dependent on site conditions. The information collected in the site evaluation, design and assessment phases is used to select controls. Some controls are discussed below:

- **Stabilization**—Under the EPA's General Permit disturbed areas of the construction site that will not be redisturbed for 21 days or more must be stabilized by the 14th day after the last disturbance. Stabilization measures include the following:

  - **Temporary seeding**—Temporary seeding is the planting of fast-growing grasses to hold down the soils in disturbed areas so that they are less apt to be carried offsite by storm water runoff or wind.

  - **Permanent seeding**—Permanent seeding is the use of permanent vegetation (grass, trees, or shrubs) to stabilize the soil by holding soil particles in place.

  - **Mulching**—Mulching is the placement of material such as hay, grass, woodchips, straw, or gravel on the soil surface to cover and hold in place disturbed soils. (Mulching often accompanies seeding.)

The EPA General Permit requires that the pollution prevention plan include structural practices to divert flows away from disturbed areas, to store flows, or to limit the discharge of pollutants from the site. The following is a list of some of the practices which may be used.

- Structural control measures

  - Earth Dike—An earth dike is a mound of stabilized soil which is constructed to divert runoff. Earth dikes may be used to either divert uncontaminated runoff away from disturbed areas or to divert contaminated runoff into a sediment basin or sediment trap.

  - Silt fence—A silt fence is a temporary measure consisting of posts with filter fabric stretched across the posts and sometimes with a wire support fence. The fence is installed along the downslope or sideslope perimeter of a disturbed area. Runoff passes through the openings in the fabric, while sediment is trapped on the uphill side.

  - Sediment trap—A sediment trap is formed by excavating a pond or by placing an earthen embankment across a low area or drainage swale. It has an outlet or spillway made of large stones or aggregate. The trap retains the runoff long enough to allow the silt to settle out.

  - Sediment basin—A sediment basin is a settling pond with a controlled water release structure, e.g., a riser and pipe outlet with a gravel filter, which slows the release of runoff. The basin detains sediment-laden runoff from larger drainage areas long enough for most of the sediment to settle out.

The EPA General Permit requires that, where it is attainable, a temporary or permanent sediment basin be installed in any drainage location where more than 10 acres in the upstream drainage area are disturbed at one time. The sediment basin must provide at least 3,600 cubic feet of storage for every acre of land which it drains (flows from upland areas that are undisturbed may be diverted around the basin). For drainage locations with 10 or fewer disturbed acres, sediment traps, filter fences, or equivalent measures must be installed along the downhill boundary of the construction site.

(C) Select Other Controls

In addition to erosion and sediment controls, the Pollution Prevention Plan for your project must address the other potential pollutant sources that may exist on a construction site. These controls include proper disposal of construction site waste disposal, compliance with applicable State or local waste disposal, sanitary sewer or septic system regulations, control of offsite vehicle tracking, and control of allowable non-storm water discharges, as explained in the following bullets:

- Ensure proper disposal of construction site waste materials.

- Treat or dispose of sanitary wastes that are generated onsite in accordance with State or local requirements. Contact the local government or State regulatory agency.

- Prevent offsite tracking of sediments and generation of dust. Stabilized construction entrances or vehicle washing racks should be installed at locations where vehicles leave the site. Where dust may be a problem, implement dust control measures such as irrigation.

- Identify and prevent contamination of non-storm water discharges. Where non-storm water discharges allowed by the General Permit exist, they must be identified and steps must be taken to prevent contamination of these discharges.

(D) Select Storm Water Management Controls

Storm water management controls are constructed to prevent or control pollution of storm water after the construction is completed. The General Permit requires that the pollution prevention plan include a description of the measures that will be installed to control pollutants in storm water after construction is complete. For sites in which the development results in runoff flows that are higher than pre-construction levels, the pollution prevention plan must include a technical explanation of why a particular storm water management measure was selected. These controls include, but are not limited to, one or more of the following:

- **Retention pond**—A pond that holds runoff in a reservoir without release except by means of evaporation, infiltration, or emergency bypass.
- **Detention pond**—A pond that holds or detains runoff in a basin for a limited time releasing it slowly to allow most of the sediments to drop out.
- **Infiltration measures**—Measures that allow the percolation of water though the ground surface into subsurface soil. Specific measures include infiltration trenches, basins, and dry wells.
- **Vegetated swales and natural depressions**—Grass-lined ditches or depressions that transport runoff, filter sediments from the runoff, and enhance infiltration of the runoff.

Selection of the most appropriate storm water management measures depends upon a number of factors associated with site conditions. EPA expects that most sites can employ measures to remove 80 percent of the total suspended solids from post-construction runoff. When you select storm water management measures for a development project, consider the impacts of these measures on other environmental media (e.g., land, air, and ground water).

In addition to pollutant removal, the storm water management portion of the plan must address velocity dissipation at discharge locations. Development usually means an increase in speed with which the site will drain because of the addition of paved areas, storm sewers, curbs, gutters, etc. The General Permit requires that velocity dissipation devices be placed along the length of any outfall where the discharge from the developed area may erode the channel. The potential for erosion is primarily dependent upon the velocity of the storm water discharge and the type of material that lines the channel. One velocity dissipation device is riprap outlet protection, which is stone or riprap placed at the discharge point to reduce the speed of concentrated storm water flows.

(E) Indicate the Location of Controls on the Site Map

Pollution prevention measures must be shown on the pollution prevention site map, including the location of each measure used for erosion and sediment control, storm water management, and other controls. When this has been done, the site map is ready to be included in the Pollution Prevention Plan. Note: It may not be feasible to indicate some controls on the site map, e.g., waste control measures.

(F) Prepare an Inspection and Maintenance Plan

After the Storm Water Pollution Prevention Plan is prepared and the necessary controls are installed, you will be responsible for inspecting and maintaining them. The General Permit requires that you prepare a description of the procedures to maintain the pollution prevention measures onsite. An inspection and maintenance checklist for each of the control measures proposed for the construction site should be included in the Storm Water Pollution Prevention Plan prior to starting construction.

(G) Prepare a Description of Controls

Once you have finished planning your construction activities and selected the controls, make a list of each type of control you plan to use on the site. Include a description of each control, describe its purpose, and explain why it is appropriate in this location. The description should also include specific information about the control such as size, required materials, and methods of installation/use. Read your permit carefully to ensure that your plan includes all of the required controls.

(H) Prepare a Sequence of Major Activities

You must prepare a sequence of major activities that includes the installation of all the controls, earth disturbing activities, all stabilization activities, and the maintenance required for the controls. The sequence should clearly indicate the order in which each of the activities described takes place. Several general principles are helpful in developing the sequence of major activities:

- Install downslope and sideslope perimeter controls before the land disturbing activity occurs.
- Do not disturb an area until it is necessary for construction to proceed.
- Cover or stabilize disturbed areas as soon as possible.
- Time construction activities to limit impact from seasonal climate changes or weather events.
- Delay construction of infiltration measures until the end of the construction project when upstream drainage areas have been stabilized.
- Do not remove temporary perimeter controls until after all upstream areas are finally stabilized.

Certification and Notification Phase

Once the site description and controls portion of the Storm Water Pollution Prevention Plan have been prepared, you now must (A) certify the pollution prevention plan and (B) submit a Notice of Intent to the appropriate agency. The checklist provided at the end of this document will be very useful in evaluating whether all the required items are included in your Storm Water Pollution Prevention Plan prior to certifying the plan or submitting a Notice of Intent.

(A) Certify the Pollution Prevention Plan

Once a pollution prevention plan is prepared, the EPA General Permit requires that the plan be certified. The plan should identify an **Authorized representative** for each operator to sign the plan. The authorized representative must be someone at or near the top of the management chain, such as the president, vice president, or a general partner, who has been delegated the authority to sign and certify this type of document. In signing the plan, the authorized representative certifies that the information is true and assumes liability for the plan. Note that Section 309 of the Clean Water Act provides for significant penalties where information is false or the permittee violates, either knowingly or negligently, permit requirements.

In addition to the party or parties considered to be operators, construction activities often have a number of different short-term contractors and subcontractors coming onsite during each phase of the project development. The EPA General Permit requires that the contractors and subcontractors responsible for implementing measures in the Pollution Prevention Plan be listed in the plan with the measures for which they are responsible and that they sign a certification statement that they understand the permit requirements.

(B) Submit a Notice of Intent

The General Permit for Storm Water Discharges Associated with Industrial Activity from Construction Activities requires that you submit a Notice of Intent (NOI) at least 2 days before construction activities begin. The NOI is essentially an application and contains important information about your site, including site location, owner information, operator (general contractor) information, receiving water(s), existing NPDES Permit Number (if any), an indication of existing quantitative data, and a brief description of the project.

EPA has developed a one-page form to be used by industrial facilities and construction activities when they submit NOIs. This form indicates all the information that you are required to provide and must be used in order for the NOI to be processed correctly. NOIs for the EPA General Permit will be submitted directly to EPA's central processing center at the following address:

Storm Water Notice of Intent
P.O. Box 1215
Newington, VA 22122

Each party or each of the parties who have day-to-day responsibilities for site operations, and each party or each of the parties who have control over the designs and specifications necessary to ensure compliance with plan requirements and permit conditions, must submit an NOI. It is anticipated that there will be projects where more than one entity (e.g., the owner, developer, or general contractor) will need to submit

an NOI so that both of the requirements for an operator are met. In this case, those persons will become co-permittees.

Deadlines—There are different deadlines for submitting NOIs depending on whether the construction starts before or after October 1, 1992.

- **Before October 1, 1992**—For construction activities that have started before October 1, 1992, and plan to continue beyond this date, the NOI must be submitted on or before October 1, 1992.
- **After October 1, 1992**—If construction will not begin until after October 1, 1992, an NOI must be postmarked at least 2 days before construction begins.
- The Storm Water Pollution Prevention Plan must be completed prior to the submittal of an NOI.

Construction/ Implementation Phase

Once you have prepared a Storm Water Pollution Prevention Plan and filed a Notice of Intent, you may start construction of the project as early as 2 days after the NOI is postmarked. However, you have not yet met all requirements of your permit. You must now do the things that you said you would do in the Storm Water Pollution Prevention Plan: (A) implement the controls, (B) inspect and maintain the controls, (C) maintain records of construction activities, (D) update/change the plan to keep it current, (E) take proper action when there is a reportable quantity spill, and (F) have plans accessible.

(A) Implement Controls

The first action that should be taken is to construct or perform the controls that were selected for the Storm Water Pollution Prevention Plan. The controls should be constructed or applied in accordance with State or local specifications. If there are no State or local specifications for control measures, then the controls should be constructed in accordance with good engineering practices. The controls must be constructed in the order indicated in the sequence of major activities. Stabilization measures must be applied within the timeframe specified in the permit.

To ensure that controls are adequately implemented, it is important that the work crews who install the measures are experienced and/or adequately trained. Improperly installed controls can have little or no effect and may actually increase the pollution of storm water. It is also important that all other workers on the construction site be made aware of the controls so that they do not inadvertently disturb or remove them.

(B) Inspect and Maintain Controls

As discussed previously, inspection and maintenance of the protective measures that are part of this plan are as important to pollution prevention as proper planning, design/selection, and installation.

- **Inspection**—The EPA General Permit requires inspection every 7 days or within 24 hours of a storm of 0.5 inches or more in depth. All disturbed areas of the site, areas for material storage, locations where vehicles enter or exit the site, and all of the erosion and sediment controls that were identified as part of the plan must be inspected. Controls must be in good operating condition until the area they protect has been completely stabilized and the construction activity is complete.

- **Maintenance/repairs**—The inspector must record any damages or deficiencies in the control measures on an inspection report form provided for this purpose. These reports document the inspection of the pollution prevention measures. These same forms can be used to request maintenance and repair and to prove that inspection and maintenance were performed. The operator should correct damage or deficiencies as soon as practicable after the inspection but in no case later than 7 days after the inspection. Any changes that may be required to correct deficiencies in the Storm Water Pollution Prevention Plan should also be made as soon as practicable after the inspection but in no case later than 7 days after the inspection.

(C) Maintain Records of Construction Activities

In addition to the inspection and maintenance reports, the operator should keep records of the construction activity on the site. In particular, the operator should keep a record of the following information:

- The dates when major grading activities occur in a particular area.
- The dates when construction activities cease in an area, temporarily or permanently.
- The dates when an area is stabilized, temporarily or permanently.

These records can be used to make sure that areas where there is no construction activity will be stabilized within the required timeframe.

(D) Update/Change the Plan

For a construction activity to be in full compliance with its NPDES storm water permit, and for the Storm Water Pollution Prevention Plan to be effective, the plan must accurately reflect site features and operations. When it does not, the plan must be changed. The plan must also be changed if the operator observes that it is not effective in minimizing pollutant discharge from the site.

If, at any time during the effective period of the permit, the permitting authority finds that the plan does not meet one or more of the minimum standards established by the General Permit, the permitting authority will notify the permittee of required changes necessary to bring the plan up to standard.

(E) Report Releases of Reportable Quantities

Because construction activities may handle certain hazardous substances over the course of the project, spills of these substances in amounts that equal or exceed Reportable Quantity (RQ) levels are a possibility. EPA has issued regulations that define what reportable quantity levels are for oil and hazardous substances. These regulations are found at 40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302. If there is a RQ release during the construction period, then you must take the following steps:

- Notify the National Response Center immediately at (800) 424-8802; in Washington, D.C., call (202) 426-2675.
- Within 14 days, submit a written description of the release to the EPA Regional office providing the date and circumstances of the release and the steps to be taken to prevent another release.
- Modify the pollution prevention plan to include the information listed above.

(F) Provide for Plan Location and Access

The General Permit has specific requirements regarding plan location and access.

- Plan location—A copy of the Pollution Prevention Plan must be kept at the construction site from the time construction begins until the site is finally stabilized.
- Retention of records—Retention of records requires that copies of the Storm Water Pollution Prevention Plan and all other reports required by the permit, as well as all of the data used to complete the NOI be retained for 3 years after the completion of final site stabilization.

- **Access**—Although plans and associated records are not necessarily required to be submitted to the Director, these documents must be made available upon request to the Director, or any State or local agency who is approving erosion and sediment control plans, or storm water management plans. If site storm water runoff is discharged to a municipal separate storm sewer system, the plans must be made available upon request to the municipal operator of the system.

FINAL STABILIZATION/ TERMINATION PHASE

Operators of a construction site must continue to comply with permit conditions until: (1) they no longer meet the definition of an operator of a construction site; or (2) the construction activity is complete, all disturbed soils have been finally stabilized, and temporary erosion and sediment controls have been or will be removed. A permittee should submit a Notice of Termination (NOT) to inform EPA that he/she is no longer an operator of a construction activity.

Final stabilization—Final stabilization is defined by the EPA General Permit as meaning that all soil disturbing activities at the site have been completed, and that a uniform perennial vegetative cover with a density of 70 percent of the cover for unpaved areas not covered by permanent structures has been established or equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed.

Notice of Termination—The NOT is a one-page form which should be completed and submitted to EPA when a site has been finally stabilized or when an operator of a construction activity changes. Information to be included on the NOT includes the location of the construction site; the name, address, and telephone number of the operator terminating coverage; the NPDES general permit number; an indication of why coverage under the permit should be terminated for the operator; and a signed certification statement.

Note that when there is a change in operators of a construction activity, then the new operator must submit an NOI to be covered by the permit at least 2 days before the change in operator.

NOT's should be mailed to the following address:

Storm Water Notice of Termination
P.O. Box 1185
Newington, Virginia 22122

Record Retention—Following the termination of construction activities the permittees must keep a copy of the Storm Water Pollution Prevention Plan and records of all the data used to complete the Notice of Intent for a period of at least three years following final stabilization. The record retention period may be extended by EPA's request.

Other References

In addition to this summary, other documents are available to assist in the preparation and implementation of pollution prevention plans. These documents include a copy of Storm Water Management for Construction Activities, Developing Pollution Prevention Plans and Best Management Practices (EPA 832-R-92-005, September 1992), which is available from the National Technical Information Service (NTIS Order No. PB 922 359 51 at (703) 487-4650).

Other information and guidance available from EPA's National Storm Water Hotline (EPA's National Storm Water Hotline number - (703) 821-4823) includes:

- Draft - Sediment and Erosion Control; an Inventory of Current Practices (EPA, OWEC, April 20, 1990)
- Draft - Construction Site Storm Water Discharge Control; an Inventory of Current Practices (Kamber Engineering, June 26, 1991)

You may also obtain copies of the EPA General Permits which apply to your construction site:

- September 9, 1992, Federal Register (57 FR 41176) - Final NPDES General Permits for Storm Water Discharges from Construction Sites; Notice
  - Applicability:

    For the States of Alaska, Arizona, Idaho, Louisiana, Maine, New Hampshire, New Mexico, Oklahoma, South Dakota and Texas; for the Commonwealth of Puerto Rico; for Indian lands located in Alaska, California, Colorado (including the Ute Mountain Reservation in Colorado), Florida (two tribes), Idaho, Louisiana, Maine, Massachusetts, Mississippi, Montana, New Hampshire, New Mexico, Nevada, North Carolina, North Dakota, Oklahoma, Texas, Utah, Washington and Wyoming; for Federal facilities in Colorado and Washington; and for the territories of Johnston Atoll, and Midway and Wake Island.
- September 25, 1992, Federal Register (57 FR 44412) - Final NPDES General Permits for Storm Water Discharges from Construction Sites; Notice
  - Applicability:

    For the States of Florida and Massachusetts; for American Samoa and Guam; for the District of Columbia; for Indian lands located in New York; and for Federal facilities in Delaware.

Also, please contact your State or local Storm Water Management or Sediment and Erosion Control permit or plan reviewers for local requirements and additional information.

EPA CONSTRUCTION GENERAL PERMIT REQUIREMENTS PRECONSTRUCTION CHECKLIST

Storm Water Pollution Prevention Plans

1. A site description, including:
   - ☐ The nature of the activity
   - ☐ Intended sequence of major construction activities
   - ☐ The total area of the site
   - ☐ The area of the site that is expected to undergo excavation
   - ☐ The runoff coefficient of the site after construction is complete
   - ☐ Existing soil or storm water data
   - ☐ A site map with:
     - ☐ Drainage patterns
     - ☐ Approximate slopes after major grading
     - ☐ Area of soil disturbance
     - ☐ Outline of areas which will not be disturbed
     - ☐ Location of major structural and non-structural controls
     - ☐ Areas where stabilization practices are expected to occur
     - ☐ Surface waters
     - ☐ Storm water discharge locations
   - ☐ The name of the receiving water(s)
2. A description of controls:
   - 2.1 Erosion and sediment controls, including:
     - ☐ Stabilization practices for all areas disturbed by construction
     - ☐ Structural practices for all drainage/discharge locations
   - 2.2 Storm water management controls, including:
     - ☐ Measures used to control pollutants occurring in storm water discharges after construction activities are complete
     - ☐ Velocity dissipation devices to provide nonerosive flow conditions from the discharge point along the length of any outfall channel
   - 2.3 Other controls including:
     - ☐ Waste disposal practices which prevent discharge of solid materials to waters of the U.S.
     - ☐ Measures to minimize offsite tracking of sediments by construction vehicles
     - ☐ Measures to ensure compliance with State or local waste disposal, sanitary sewer, or septic system regulations
   - 2.4 ☐ Description of the timing during the construction when measures will be implemented
3. ☐ State or local requirements incorporated into the plans
4. ☐ Inspection and maintenance procedures for control measures identified in the plan
5. ☐ Identification of allowable non-storm water discharges and pollution prevention measures
6. ☐ Contractor certification
7. ☐ Plan certification

EPA CONSTRUCTION GENERAL PERMIT CHECKLIST

Storm Water Pollution Prevention Plan
Construction/Implementation Checklist

1. Maintain Records of Construction Activities, including:
   - ☐ Dates when major grading activities occur
   - ☐ Dates when construction activities temporarily cease on a portion of the site
   - ☐ Dates when construction activities permanently cease on a portion of the site
   - ☐ Dates when stabilization measures are initiated on the site
2. Prepare Inspection Reports summarizing:
   - ☐ Name of inspector
   - ☐ Qualifications of inspector
   - ☐ Measures/areas inspected
   - ☐ Observed conditions
   - ☐ Changes necessary to the SWPPP
3. Report Releases of Reportable Quantities of Oil or Hazardous Materials (if they occur):
   - ☐ Notify National Response Center 800/424-8802 immediately
   - ☐ Notify permitting authority in writing within 14 days
   - ☐ Modify the pollution prevention plan to include:
     - the date of release
     - circumstances leading to the release
     - steps taken to prevent reoccurrence of the release
4. Modify Pollution Prevention Plan as necessary to:
   - ☐ Comply with minimum permit requirements when notified by EPA that the plan does not comply
   - ☐ Address a change in design, construction operation or maintenance which has an effect on the potential for discharge of pollutants
   - ☐ Prevent reoccurrence of reportable quantity releases of a hazardous material or oil

EPA CONSTRUCTION GENERAL PERMIT CHECKLIST

Storm Water Pollution Prevention Plan
Final Stabilization/Termination Checklist

1.	☐	All soil disturbing activities are complete
2.	☐	Temporary erosion and sediment control measures have been removed or will be removed at an appropriate time
3.	☐	All areas of the construction site not otherwise covered by a permanent pavement or structure have been stabilized with a uniform perennial vegetative cover with a density of 70% or equivalent measures have been employed

POLLUTION PREVENTION PLAN FOR STORM WATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES
EROSION AND SEDIMENT CONTROL SELECTION CHECKLIST

INSTRUCTIONS: THIS CHECKLIST LISTS THE MINIMUM SEDIMENT EROSION CONTROL REQUIREMENTS UNDER THE USEPA GENERAL PERMIT. CHECK [✓] EACH ITEM AND FILL IN THE BLANKS BELOW TO EVALUATE COMPLIANCE FOR EACH DRAINAGE AREA AND LOCATION. NOTE: THIS CHECKLIST WAS PREPARED FOR THE USEPA GENERAL PERMIT. REQUIREMENTS FOR STATE GENERAL PERMITS MAY VARY.

Stabilization Practices

☐ Stabilization will be initiated on all disturbed areas where construction activity will not occur for a period of more than 21 calendar days by the 14th day after construction activity has permanently or temporarily ceased.

Stabilization measures to be used include:

- ☐ Temporary Seeding
- ☐ Permanent Seeding
- ☐ Mulching
- ☐ Sod Stabilization
- ☐ Geotextiles
- ☐ Other _____

Structural Practices

☐ Flows from upstream areas will be diverted from exposed soils to the degree attainable. Measures to be used include:

- ☐ Earth Dike
- ☐ Drainage Swale
- ☐ Interceptor Dike and Swale
- ☐ Pipe Slope Drain
- ☐ Other _____

Drainage locations serving less than 10 disturbed acres	Drainage locations serving 10 or more disturbed acres
☐ Sediment controls will be installed	☐ A Sediment Basin will be installed
Sediment controls include:	☐ A Sediment Basin is not attainable on the site; therefore, the following sediment controls will be installed:
☐ Sediment Basin	☐ Sediment Trap
☐ Sediment Trap	☐ Silt Fence or equivalent controls along the sideslope and downslope boundaries
☐ Silt Fence or equivalent controls along all sideslope and downslope boundaries	

Sediment Basin Runoff Storage Calculation

_____ acres area draining to the sediment basin

X

3,600 cubic feet of storage/acre

=

_____ cubic feet of storage required for the basin.

HOMERVILLE APARTMENTS
CONSTRUCTION POLLUTION PREVENTION PLAN

SITE DESCRIPTION

Project Name and Location: (Latitude, Longitude, or Address)	Homerville Apartments 21 Broadview Avenue Center City, ANY State 00000	Owner Name and Address:	Quality Associates 11 Main Street Center City, ANY State 00000

Description: (Purpose and Types of Soil Disturbing Activities)

This project will consist of three low-rise, attached apartment buildings with adjacent parking facilities.

Soil disturbing activities will include: clearing and grubbing; installing a stabilized construction entrance, perimeter, and other erosion and sediment controls; grading; excavation for the sedimentation pond, storm sewer, utilities, and building foundations; construction of curb and gutter, road, and parking areas; and preparation for final planting and seeding.

Runoff Coefficient:	The final coefficient of runoff for the site will be c = 0.5.
Site Area:	The site is approximately 11.0 acres of which 9.8 acres will be disturbed by construction activities.

Sequence of Major Activities

The order of activities will be as follows:

1. Install stabilized construction entrance
2. Clear and grub for earth dike and sediment basin
3. Install earth dike
4. Construct sedimentation basin
5. Continue clearing and grading
6. Pile topsoil
7. Stabilize denuded areas and stockpiles within 14 days of last construction activity in that area
8. Install utilities, storm sewer, curb and gutter
9. Apply stone to parking area and road
10. Construct apartment buildings
11. Complete grading and install permanent seeding and plantings
12. Complete final paving
13. Remove accumulated sediment from basin.
14. When all construction activity is complete and the site is stabilized, remove earth dike and reseed any areas disturbed by their removal.

Name of Receiving Waters:	The entire site will drain into Rocky Creek which is approximately one hundred yards from the site.

CONTROLS

Erosion and Sediment Controls

Stabilization Practices

Temporary Stabilization - Top soil stock piles and disturbed portions of the site where construction activity temporarily ceases for at least 21 days will be stabilized with temporary seed and mulch no later than 14 days from the last construction activity in that area. The temporary seed shall be Rye (grain) applied at the rate of 120 pounds per acre. Prior to seeding, 2,000 pounds of ground agricultural limestone and 1,000 pounds of 10-10-10 fertilizer shall be applied to each acre to be stabilized. After seeding, each area shall be mulched with 4,000 pounds per acre of straw. The straw mulch is to be tacked into place by a disk with blades set nearly straight. Areas of the site which are to be paved will be temporarily stabilized by applying geotextile and stone sub-base until bituminous pavement can be applied.

Permanent Stabilization - Disturbed portions of the site where construction activities permanently ceases shall be stabilized with permanent seed no later than 14 days after the last construction activity. The permanent seed mix shall consist of 80 lbs/acre tall fescue, and 40 lbs/acre kobe lespedeza. Prior to seeding, 4,000 pounds of ground agricultural limestone and 2,000 pounds of 10-10-10 fertilizer shall be applied to each acre to be stabilized. After seeding, each area shall be mulched with 4,000 pounds per acre of straw. The straw mulch is to be tacked into place by a disk with blades set nearly straight.

CONTROLS (Continued)

Structural Practices

Earth Dike - will be constructed along the uphill perimeter (north) of the site. A portion of the dike will divert runon around the construction site. The remaining portion of the dike will collect runoff from the disturbed area and direct the runoff to the sediment basin.

Sediment Basin - will be constructed at the common drainage location on the south side of the construction site. The basin will be formed by constructing an embankment across an existing gully and excavating a storage pond with a volume of 36,000 cubic feet (0.82) acre feet. The basin will drain through a corrugated metal riser and outlet pipe to a rip rap outlet apron. Once construction activities are nearly complete, the accumulated sediment will be removed from the basin.

Storm Water Management

Storm water drainage will be provided by curb and gutter, storm sewer and catch basin, for the developed areas. The areas which are not developed will be graded at less that 0.5:1 and have permanent seeding or plantings. Two acres of the site will remain untouched and in its natural State. When construction is complete the entire site will drain to a wet detention basin. The wet detention basin will be in the location of the temporary sediment basin. When upslope areas are stabilized, the accumulated sediment will be removed from the sediment basin, and the areas on the sides of the basin will be planted with vegetation. The wet detention pond is designed with a permanent pool volume of 0.82 (acre-feet). This is equivalent to one inch of runoff for the entire drainage area. It is expected that this wet detention pond design will result in an 80 percent removal of total suspended solids from the site's storm water runoff. The pond has been designed by a professional engineer to keep peak flow rates from the two and ten year/24 hour storms at their pre-development rates. The outlet of the detention basin will be stabilized by a riprap apron.

OTHER CONTROLS

Waste Disposal:

Waste Materials

All waste materials will be collected and stored in a securely lidded metal dumpster rented from the ADF Waste Management Company, which is a licensed solid waste management company in Center City. The dumpster will meet all local Center City and any State solid waste management regulations. All trash and construction debris from the site will be deposited in the dumpster. The dumpster will be emptied a minimum of twice per week or more often if necessary, and the trash will be hauled to the Center City Dump. No construction waste materials will be buried onsite. All personnel will be instructed regarding the correct procedure for waste disposal. Notices stating these practices will be posted in the office trailer and Mr. Doe, the individual who manages the day-to-day site operations, will be responsible for seeing that these procedures are followed.

Hazardous Waste

All hazardous waste materials will be disposed of in the manner specified by local or State regulation or by the manufacturer. Site personnel will be instructed in these practices and Mr. Doe, the individual who manages day-to-day site operations, will be responsible for seeing that these practices are followed.

Sanitary Waste

All sanitary waste will be collected from the portable units a minimum of three times per week by the TIDEE Company, a licensed Center City sanitary waste management contractor, as required by local regulation.

Offsite Vehicle Tracking:

A stabilized construction entrance has been provided to help reduce vehicle tracking of sediments. The paved street adjacent to the site entrance will be swept daily to remove any excess mud, dirt or rock tracked from the site. Dump trucks hauling material from the construction site will be covered with a tarpaulin.

TIMING OF CONTROLS/MEASURES

As indicated in the Sequence of Major Activities, the earth dike, stabilized construction entrance and sedime basin will be constructed prior to clearing or grading of any other portions of the site. Areas where construction activity temporarily ceases for more than 21 days will be stabilized with a temporary seed and mulch within 14 days of the last disturbance. Once construction activity ceases permanently in an area, that area will be stabilized with permanent seed and mulch. After the entire site is stabilized, the accumulated sediment will be removed from the trap and the earth dike will be removed.

CERTIFICATION OF COMPLIANCE WITH FEDERAL, State, AND LOCAL REGULATIONS

The storm water pollution prevention plan reflects Center City requirements for storm water management and erosion and sediment control, as established in Center City ordinance 5-188. To ensure compliance, this plan was prepared in accordance with the Center City Storm Water Management, Erosion and Sediment Control Handbook, published by the Center City Department of Planning, Storm Water Management Section. There are no other applicable State or Federal requirements for sediment and erosion site plans (or permits), or storm water management site plans (or permits).

MAINTENANCE/INSPECTION PROCEDURES

Erosion and Sediment Control Inspection and Maintenance Practices

These are the inspection and maintenance practices that will be used to maintain erosion and sediment controls.

- Less than one half of the site will be denuded at one time.
- All control measures will be inspected at least once each week and following any storm event of 0.5 inches or greater.
- All measures will be maintained in good working order; if a repair is necessary, it will be initiated within 24 hours of report.
- Built up sediment will be removed from silt fence when it has reached one-third the height of the fenc
- Silt fence will be inspected for depth of sediment, tears, to see if the fabric is securely attached to the fence posts, and to see that the fence posts are firmly in the ground.
- The sediment basin will be inspected for depth of sediment, and built up sediment will be removed when it reaches 10 percent of the design capacity or at the end of the job.
- Diversion dike will be inspected and any breaches promptly repaired.
- Temporary and permanent seeding and planting will be inspected for bare spots, washouts, and healthy growth.
- A maintenance inspection report will be made after each inspection. A copy of the report form to be completed by the inspector is attached.
- Mr. Doe, site superintendent, will select three individuals who will be responsible for inspections, maintenance and repair activities, and filling out the inspection and maintenance report.
- Personnel selected for inspection and maintenance responsibilities will receive training from Mr. Doe. They will be trained in all the inspection and maintenance practices necessary for keeping the erosion and sediment controls used onsite in good working order.

MAINTENANCE/INSPECTION PROCEDURES (Continued)
Non-Storm Water Discharges
It is expected that the following non-storm water discharges will occur from the site during the construction period: • Water from water line flushings. • Pavement wash waters (where no spills or leaks of toxic or hazardous materials have occurred). • Uncontaminated groundwater (from dewatering excavation). All non-storm water discharges will be directed to the sediment basin prior to discharge.

INVENTORY FOR POLLUTION PREVENTION PLAN

The materials or substances listed below are expected to be present onsite during construction:

- Concrete
- Detergents
- Paints (enamel and latex)
- Metal Studs
- Concrete
- Tar
- Fertilizers
- Petroleum Based Products
- Cleaning Solvents
- Wood
- Masonry Block
- Roofing Shingles.

SPILL PREVENTION

Material Management Practices

The following are the material management practices that will be used to reduce the risk of spills or other accidental exposure of materials and substances to storm water runoff.

Good Housekeeping:

The following good housekeeping practices will be followed onsite during the construction project.

- An effort will be made to store only enough product required to do the job
- All materials stored onsite will be stored in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure
- Products will be kept in their original containers with the original manufacturer's label
- Substances will not be mixed with one another unless recommended by the manufacturer
- Whenever possible, all of a product will be used up before disposing of the container
- Manufacturers' recommendations for proper use and disposal will be followed
- The site superintendent will inspect daily to ensure proper use and disposal of materials onsite.

Hazardous Products:

These practices are used to reduce the risks associated with hazardous materials.

- Products will be kept in original containers unless they are not resealable
- Original labels and material safety data will be retained; they contain important product information
- If surplus product must be disposed of, manufacturers' or local and State recommended methods for proper disposal will be followed.

SPILL PREVENTION (Continued)

Product Specific Practices

The following product specific practices will be followed onsite:

Petroleum Products:

All onsite vehicles will be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers which are clearly labeled. Any asphalt substances used onsite will be applied according to the manufacturer's recommendations.

Fertilizers:

Fertilizers used will be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer will be worked into the soil to limit exposure to storm water. Storage will be in a covered shed. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills.

Paints:

All containers will be tightly sealed and stored when not required for use. Excess paint will not be discharged to the storm sewer system but will be properly disposed of according to manufacturers' instructions or State and local regulations.

Concrete Trucks:

Concrete trucks will not be allowed to wash out or discharge surplus concrete or drum wash water on the site.

Spill Control Practices

In addition to the good housekeeping and material management practices discussed in the previous sections of this plan, the following practices will be followed for spill prevention and cleanup:

- Manufacturers' recommended methods for spill cleanup will be clearly posted and site personnel will be made aware of the procedures and the location of the information and cleanup supplies.
- Materials and equipment necessary for spill cleanup will be kept in the material storage area onsite. Equipment and materials will include but not be limited to brooms, dust pans, mops, rags, gloves, goggles, kitty litter, sand, sawdust, and plastic and metal trash containers specifically for this purpose.
- All spills will be cleaned up immediately after discovery.
- The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- Spills of toxic or hazardous material will be reported to the appropriate State or local government agency, regardless of the size.
- The spill prevention plan will be adjusted to include measures to prevent this type of spill from reoccurring and how to clean up the spill if there is another one. A description of the spill, what caused it, and the cleanup measures will also be included.
- Mr. Doe, the site superintendent responsible for the day-to-day site operations, will be the spill prevention and cleanup coordinator. He will designate at least three other site personnel who will receive spill prevention and cleanup training. These individuals will each become responsible for a particular phase of prevention and cleanup. The names of responsible spill personnel will be posted in the material storage area and in the office trailer onsite.

POLLUTION PREVENTION PLAN 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 gathered and evaluated 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.

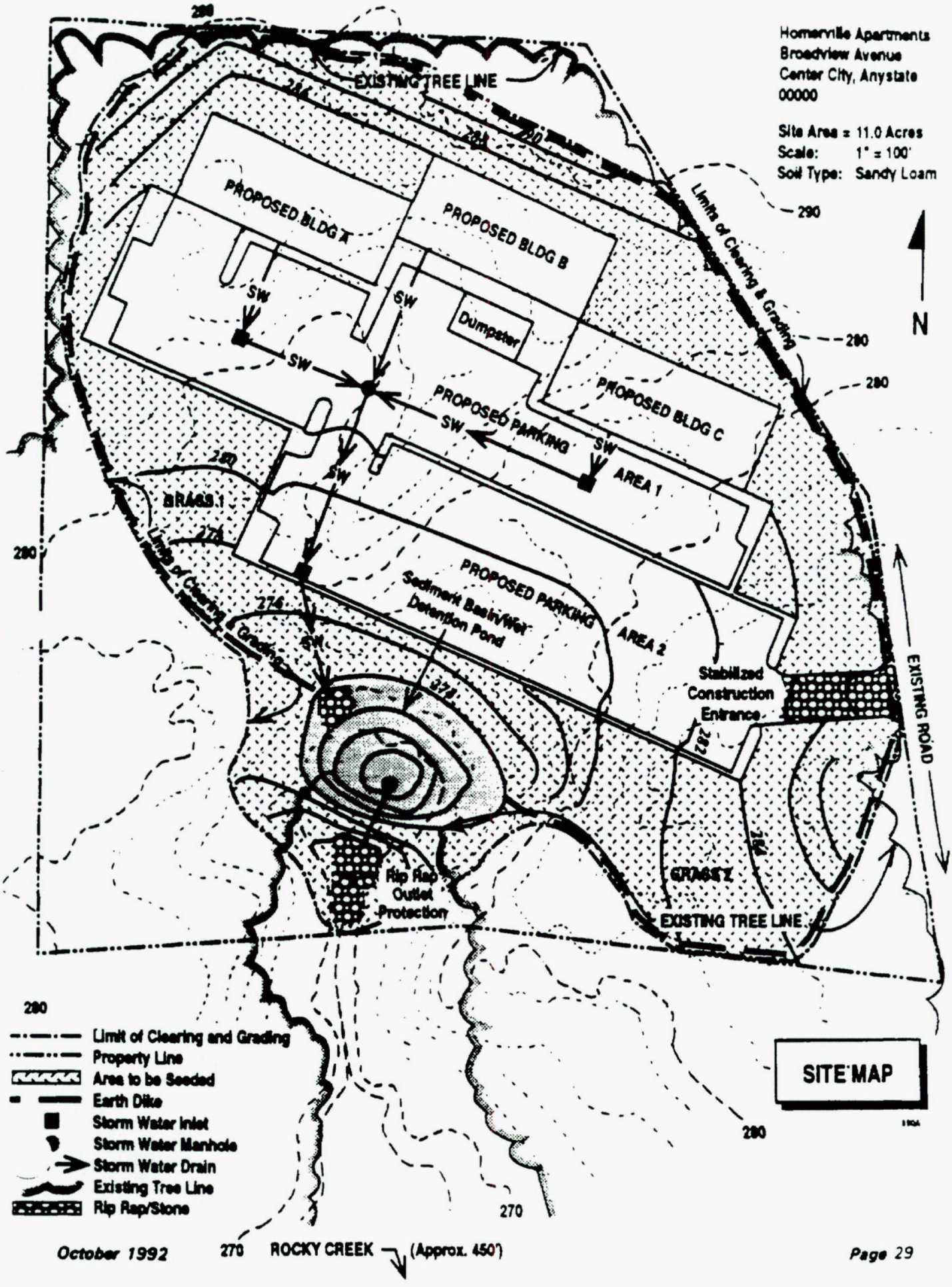
Signed:_____
John R. Quality,
President
Quality Associates

Date:_____

CONTRACTOR'S CERTIFICATION

I certify under penalty of law that I understand the terms and conditions of the general National Pollutant Discharge Elimination System (NPDES) permit that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

Signature	For	Responsible for
_____ Joseph Contractor, President Date:_____	Center City Const., Inc. 21 Elm Street Center City, Any State 00000 (123) 399-8765	General Contractor
_____ John Planter Vice President of Construction Date:_____	Green Grass, Inc. 4233 Center Road Outerville, Any State 00001 (123) 823-5678	Temporary and Permanent Stabilization
_____ Jim Kay, President Date:_____	Dirt Movers, Inc. 523 Lincoln Ave. Outerville, Any State 00001 (123) 823-8921	Stabilized Construction Entrance, Earth Dikes, Sediment Basin


Homerville Apartments
Broadview Avenue
Center City, Anystate
00000
Site Area = 11.0 Acres
Scale: 1" = 100'
Soil Type: Sandy Loam
N
EXISTING TREE LINE
PROPOSED BLDG A
PROPOSED BLDG B
PROPOSED BLDG C
Dumpster
PROPOSED PARKING
AREA 1
AREA 2
Limits of Clearing & Grading
SW
GRASS 1
GRASS 2
Sediment Basin/Wet Detention Pond
Stabilized Construction Entrance
Rip Rap Outlet Protection
EXISTING ROAD
290
280
270
Limit of Clearing and Grading
Property Line
Area to be Seeded
Earth Dike
Storm Water Inlet
Storm Water Manhole
Storm Water Drain
Existing Tree Line
Rip Rap/Stone
SITE MAP
ROCKY CREEK (Approx. 450')

HOMERVILLE APARTMENTS

STORM WATER POLLUTION PREVENTION PLAN

INSPECTION AND MAINTENANCE REPORT FORM

TO BE COMPLETED EVERY 7 DAYS AND WITHIN 24 HOURS OF
A RAINFALL EVENT OF 0.5 INCHES OR MORE

INSPECTOR: _____ DATE: _____

INSPECTOR'S QUALIFICATIONS:

_____

_____

_____

_____

DAYS SINCE LAST RAINFALL: _____ AMOUNT OF LAST RAINFALL _____ INCHES

STABILIZATION MEASURES

AREA	DATE SINCE LAST DISTURBED	DATE OF NEXT DISTURBANCE	STABILIZED? (YES/NO)	STABILIZED WITH	CONDITION
BLDG. A					
BLDG. B					
BLDG. C					
PRKNG. 1					
PRKNG. 2					
GRASS 1					
GRASS 2					

STABILIZATION REQUIRED:

_____

_____

_____

_____

TO BE PERFORMED BY: _____ ON OR BEFORE: _____

HOMERVILLE APARTMENTS

STORM WATER POLLUTION PREVENTION PLAN

INSPECTION AND MAINTENANCE REPORT FORM

STRUCTURAL CONTROLS

DATE: _____

EARTH DIKE:

FROM	TO	IS DIKE STABILIZED?	IS THERE EVIDENCE OF WASHOUT OR OVER-TOPPING?
BUILDING B	STABILIZED CONSTRUCTION ENTRANCE		
STABILIZED CONSTRUCTION ENTRANCE	SEDIMENT BASIN		
BUILDING B	SEDIMENT BASIN		

MAINTENANCE REQUIRED FOR EARTH DIKE:

_____

_____

_____

_____

TO BE PERFORMED BY: _____ ON OR BEFORE: _____

HOMERVILLE APARTMENTS

STORM WATER POLLUTION PREVENTION PLAN

INSPECTION AND MAINTENANCE REPORT FORM

SEDIMENT BASIN:

DEPTH OF SEDIMENT IN BASIN	CONDITION OF BASIN SIDE SLOPES	ANY EVIDENCE OF OVERTOPPING OF THE EMBANKMENT?	CONDITION OF OUTFALL FROM SEDIMENT BASIN

MAINTENANCE REQUIRED FOR SEDIMENT BASIN:

_____

_____

_____

_____

TO BE PERFORMED BY: _____ ON OR BEFORE: _____

OTHER CONTROLS

STABILIZED CONSTRUCTION ENTRANCE:

DOES MUCH SEDIMENT GET TRACKED ON TO ROAD?	IS THE GRAVEL CLEAN OR IS IT FILLED WITH SEDIMENT?	DOES ALL TRAFFIC USE THE STABILIZED ENTRANCE TO LEAVE THE SITE?	IS THE CULVERT BENEATH THE ENTRANCE WORKING?

MAINTENANCE REQUIRED FOR STABILIZED CONSTRUCTION ENTRANCE:

_____

_____

_____

_____

TO BE PERFORMED BY: _____ ON OR BEFORE: _____

HOMERVILLE APARTMENTS

STORM WATER POLLUTION PREVENTION PLAN

INSPECTION AND MAINTENANCE REPORT FORM

CHANGES REQUIRED TO THE POLLUTION PREVENTION PLAN:

_____

_____

_____

_____

REASONS FOR CHANGES:

_____

_____

_____

_____

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 gathered and evaluated 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.

SIGNATURE:_____ DATE:_____

☆ U.S. GOVERNMENT PRINTING OFFICE:1992-715-902/60835

EPA
United States
Environmental Protection Agency
Washington DC 20460
(EN 336)

Official Business
Penalty For Private Use $300

APPENDIX E

CONSTRUCTION SITE INSPECTION REPORT FORM

CITY OF KENNER
STORMWATER POLLUTION PREVENTION
CONSTRUCTION SITE INSPECTION REPORT

Date of initial contact: _____

Additional visits: _____

Project: _____

Location: _____

_____

Total Square Feet: _____

Acreage: _____ (total square feet/43,560)

Number of construction entrances: _____

General Contractor: _____

Phone: _____

Person(s) Contacted: _____

Beeper Number: _____

Phone: _____

City Inspector's Name: _____

Receiving water bodies: _____

Sedimentation traps on storm drains?

Yes [ ] No [ ] _____

Mud in storm drains?
Yes [ ] No [ ] _____

Silt fences around construction site?
Yes [ ] No [ ] _____

Entrances maintained with gravel or mulch?
Yes [ ] No [ ] _____

Stabilization practices employed?
Yes [ ] No [ ] _____

Dumpster for solid waste on site?
Yes [ ] No [ ] _____

Litter on site?
Yes [ ] No [ ] _____

Bulk Petroleum Products on site?
Yes [ ] No [ ] _____

Open or leaking drums?
Yes [ ] No [ ] _____

Cement trucks washed on site?
Yes [ ] No [ ] _____

Equipment cleaned on site?
Yes [ ] No [ ] _____

Mop sink for paints?
Yes [ ] No [ ] _____

Disposal of toxics handled properly?
Yes [ ] No [ ] _____

APPENDIX K

DRAINAGE SUB-BASIN VISUAL OBSERVATION CHECKLIST
CITY OF KENNER MS4
WET WEATHER SCREENING PROGRAM

Instructions: Place an "X" in the appropriate box for each item. If any response requires an explanation, please explain in the observation/comments space. Additional comments should be attached on a separate sheet of paper.

Investigator:_____ Date:_____

Area:_____

Pipe(s)

Size	Type	Location

_____

_____

VISUAL SCREENING OF STORM SEWER OUTFALLS:

	YES	NO	N/A	OBSERVATIONS/COMMENTS
Is water flowing from the pipe?	[ ]	[ ]	[ ]	_____
If so, please describe physical parameters of discharge:				
Color	[ ]	[ ]	[ ]	_____
Turbidity	[ ]	[ ]	[ ]	_____
Sheen	[ ]	[ ]	[ ]	_____
Foam	[ ]	[ ]	[ ]	_____
Floatables	[ ]	[ ]	[ ]	_____
Other	[ ]	[ ]	[ ]	_____
Does the vegetation around the outfall or in the canal show visual signs of pollutants?	[ ]	[ ]	[ ]	

Describe (i.e. algae, excessive growth, absence of vegetation, etc.):

_____

_____

_____

SUB-BASIN SURVEY:

INDUSTRIAL RUNOFF:

	YES	NO	N/A	OBSERVATIONS/COMMENTS
Are there any industries that appear to be discharging or contributing polluted runoff to the storm sewer system?	[ ]	[ ]	[ ]	_____

List industries:

Name:	Address:
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

URBAN RUNOFF:

	YES	NO	N/A	OBSERVATIONS/COMMENTS
Is the area free from litter?	[ ]	[ ]	[ ]	_____
Are all storage tanks in good operating condition? (free from cracks and not leaking)	[ ]	[ ]	[ ]	_____
Does the storm drainage system appear to be operating properly?	[ ]	[ ]	[ ]	_____
Is the area free from surface liquid contamination?	[ ]	[ ]	[ ]	_____
Is the area free from non-stormwater discharges?	[ ]	[ ]	[ ]	_____
Are covers on all outside trash containers to prevent rainfall from entering?	[ ]	[ ]	[ ]	_____
Are area gas stations free of oil and gas spills or leaks?	[ ]	[ ]	[ ]	_____

EROSION:

	YES	NO	N/A	OBSERVATIONS/COMMENTS
Is there excessive sediment accumulation?	[ ]	[ ]	[ ]	_____
Are canal banks stable and vegetated?	[ ]	[ ]	[ ]	_____
Is nutria activity apparent?	[ ]	[ ]	[ ]	_____
Do area construction sites have sedimentation and erosion controls? (silt fences, hay bales, etc.)	[ ]	[ ]	[ ]	_____
Are all nonpaved areas vegetated and free from erosion potential?	[ ]	[ ]	[ ]	_____

SEWER SYSTEM AND INDIVIDUAL SEPTIC SYSTEMS:

	YES	NO	N/A	OBSERVATIONS/COMMENTS
Are there visible signs of sanitary sewer overflows?	[ ]	[ ]	[ ]	_____
Are septic system discharge points free from odor and septic conditions?	[ ]	[ ]	[ ]	_____

RECOMMENDED ACTION:

_____

_____

_____

_____

_____

	YES	NO	N/A	OBSERVATIONS/COMMENTS
PHOTOS TAKEN:	[ ]	[ ]	[ ]	_____

DRAINAGE SUB-BASIN VISUAL OBSERVATION CHECKLIST
CITY OF KENNER MS4
ILLICITS DISCHARGE INSPECTION PROGRAM

Instructions: Place an "X" in the appropriate box for each item. If any response requires an explanation, please explain in the observation/comments space. Additional comments should be attached on a separate sheet of paper.

Investigator:_____ Date:_____

Area:_____

Pipe(s)

Size	Type	Location

_____

_____

VISUAL SCREENING OF STORM SEWER OUTFALLS:

	YES	NO	NA	OBSERVATIONS/COMMENTS
Is water flowing from the pipe?	[ ]	[ ]	[ ]	_____
If so, please describe physical parameters of discharge:				
Color	[ ]	[ ]	[ ]	_____
Turbidity	[ ]	[ ]	[ ]	_____
Sheen	[ ]	[ ]	[ ]	_____
Foam	[ ]	[ ]	[ ]	_____
Floatables	[ ]	[ ]	[ ]	_____
Other	[ ]	[ ]	[ ]	_____
Does the vegetation around the outfall or in the canal show visual signs of pollutants?	[ ]	[ ]	[ ]	

Describe (i.e. algae, excessive growth, absence of vegetation, etc.):

_____

_____

_____

SUB-BASIN SURVEY:

INDUSTRIAL RUNOFF:

	YES	NO	NA	OBSERVATIONS/COMMENTS
Are there any industries that appear to be discharging or contributing polluted runoff to the storm sewer system?	[ ]	[ ]	[ ]	_____

List industries:

Name:	Address:
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

URBAN RUNOFF:

	YES	NO	NA	OBSERVATIONS/COMMENTS
Is the area free from litter?	[ ]	[ ]	[ ]	_____
Are all storage tanks in good operating condition? (free from cracks and not leaking)	[ ]	[ ]	[ ]	_____
Does the storm drainage system appear to be operating properly?	[ ]	[ ]	[ ]	_____
Is the area free from surface liquid contamination?	[ ]	[ ]	[ ]	_____
Is the area free from non-stormwater discharges?	[ ]	[ ]	[ ]	_____
Are covers on all outside trash containers to prevent rainfall from entering?	[ ]	[ ]	[ ]	_____
Are area gas stations free of oil and gas spills or leaks?	[ ]	[ ]	[ ]	_____

EROSION:

	YES	NO	NA	OBSERVATIONS/COMMENTS
Is there excessive sediment accumulation?	[ ]	[ ]	[ ]	_____
Are canal banks stable and vegetated?	[ ]	[ ]	[ ]	_____
Is nutria activity apparent?	[ ]	[ ]	[ ]	_____
Do area construction sites have sedimentation and erosion controls? (silt fences, hay bales, etc.)	[ ]	[ ]	[ ]	_____
Are all nonpaved areas vegetated and free from erosion potential?	[ ]	[ ]	[ ]	_____

SEWER SYSTEM AND INDIVIDUAL SEPTIC SYSTEMS:

	YES	NO	NA	OBSERVATIONS/COMMENTS
Are there visible signs of of sanitary sewer overflows?	[ ]	[ ]	[ ]	_____
Are septic system discharge points free from odor and septic conditions?	[ ]	[ ]	[ ]	_____

RECOMMENDED ACTION:

_____

_____

_____

_____

_____

	YES	NO	NA	OBSERVATIONS/COMMENTS
PHOTOS TAKEN:	[ ]	[ ]	[ ]	_____

INSPECTION CHECKLIST
CITY OF KENNER MS4
INDUSTRIAL & HIGH RISK (I&HR) INSPECTION PROGRAM

Instructions: Place an "X" in the appropriate box for each item. If any response requires an explanation, please explain in the observation/comments space. Additional comments should be attached on a separate sheet of paper.

Investigator:_____ Date:_____

Facility Name:_____ Responsible Person:_____

VISUAL SCREENING FOR POTENTIAL STORM SEWER CONTAMINATION:

	YES	NO	N/A	OBSERVATIONS/COMMENTS
Are any raw or waste materials presently exposed or are likely to be exposed to storm water?	[ ]	[ ]	[ ]	_____
Are any final or intermediate products presently exposed or are likely to be exposed to storm water?	[ ]	[ ]	[ ]	_____
Are any by-products presently exposed or are likely to be exposed to storm water?	[ ]	[ ]	[ ]	_____
Are any material handling equipment or activities presently exposed or are likely to be exposed to storm water?	[ ]	[ ]	[ ]	_____
Are any industrial machinery or operations presently exposed or are likely to be exposed to storm water?	[ ]	[ ]	[ ]	_____
Are any significant materials from past industrial activity presently exposed or are likely to be exposed to storm water?	[ ]	[ ]	[ ]	_____

Other observations:

_____

RECOMMENDED ACTION:

_____

	YES	NO	N/A	OBSERVATIONS/COMMENTS
PHOTOS TAKEN:	[ ]	[ ]	[ ]	_____

Pesticide Application Inspection Report

Date: _____

Time: _____

Announced: [ ] Unannounced: [ ]

Company Name: _____ _____

Address
Location

_____
_____
_____

Address
Mailing:

_____
_____
_____

Phone: _____

Hand Applicator: (It may be necessary to complete both sections)

Applicator's Name, Title, Certification Number, and Date of Expiration:

_____
_____

Inspection conducted by staffmember(s): _____
_____
_____

Area Sprayed:
Roadside: [ ] Median Strip: [ ] Drainage Ditch: [ ]

Were chemicals being used mixed on site? Yes [ ] No [ ]
If no, indicated where chemicals were mixed: _____
_____
_____
_____

If yes, ask the following question:
Did the applicator use the City's water supply such as a fire hydrant?
Yes [ ] No [ ] N/A [ ]
If no, explain the source of the water. _____
_____
_____
_____

If the applicator is using or used a fire hydrant, did the Connection have a back flow preventor? (Note, if the inspector is present while chemical are being mixed, the inspector should note the position of the hose in relation to the lip on the tank or container. If the hose is in the chemical, this will cause a back flow of chemical(s) which will contaminate the water supply). Yes [ ] No [ ] N/A [ ]

What chemicals did the applicator mix? _____

_____

How much is being mixed or was mixed? Water _____ gallons
Chemical _____ gallons

Does the applicator have a copy of the label or MSD sheet(s) for each chemical mixed or being transported on the vehicle? Yes [ ] No [ ]

Is the applicator(s) wearing the protective clothing prescribed by the label?
Yes [ ] No [ ]
Describe the applicator(s) protective clothing: _____

_____

_____

_____

Are safety lights on the vehicle(s) working? Yes [ ] No [ ]
Comments or suggestions? _____

_____

_____

Rig Applicator

Applicator's Name, Title, Certification Number, and Expiration Date:

_____

_____

Inspector: _____

Area Sprayed:
Roadside: [ ] Median Strip: [ ] Drainage Ditch: [ ]

Boundaries: _____

Name of. Drainage Ditch: _____

Were chemicals being used mixed on site? Yes [ ] No [ ]
If no. indicate where chemicals were mixed: _____

_____

_____

_____

If yes, ask the following question:
Did the applicator use the City's water supply such as a fire hydrant?
Yes [ ] No [ ] N/A [ ]
If no, explain the source of the water._____

_____

_____

_____

If the applicator is using or used a fire hydrant, did the connection have a back flow preventor? (Note, if the inspector is present while chemicals are being mixed, the inspector should note the position of the hose in relation to the lip of the tank or container. If the hose is in the chemical, this will cause a back flow of chemicals which will contaminate the water supply). Yes [ ] No [ ] N/A [ ]

What chemicals did the applicator mix?

_____

_____

Chemical name:

_____

How much is being mixed or was mixed? Water _____ gallons
Chemical _____ gallons

Does the applicator have a copy of the label or MSDS sheet for each chemical mixed or being transported on the vehicle? Yes [ ] No [ ]

Is the applicator(s) wearing the protective clothing prescribed by the label?
Yes [ ] No [ ]
Describe the applicator(s) protective clothing: _____

_____

_____

_____

Are the safety lights on the vehicle(s) working? Yes [ ] No [ ]
Comments or suggestions: _____

_____

_____

Are there any leaks in the hose(s) or from the valves(s)? (Applies to hand applicators)

Yes [ ] No [ ]

Rig Applicator:

Ask the applicator to turn in the pump so that the system is pressurized, so that pressure gauges can be checked. The gauge is usually located on the front of the truck.

Are the pressure gauges working? Yes [ ] No [ ]

Comments or suggestions:

_____

_____

_____

Are all hoses, fittings and valves free of leaks or cracks? Yes [ ] No [ ]

Comments or suggestions: _____

_____

_____

Does the company have a SPCC plan? Yes [ ] No [ ]

Comments or suggestions: _____

_____

_____

Is there a spill clean-up kit on the vehicle? Yes [ ] No [ ]

Comments or suggestions: _____

_____

_____

Report Completed by: _____

Report Reviewed by: _____

CITY OF KENNER
ENVIRONMENTAL AND DEVELOPMENT CONTROL
BUILDING PERMIT PLAN REVIEW FORM
(For All Construction Sites 5.0 Acres or Larger)

1. Name and address of (proposed) business or construction site:

_____

_____

_____

2. Name of authorized person(s) to contact regarding questions about this business: _____

   Title: _____ Phone: _____

3. Standard Industrial Classification (SIC) Code _____

4. Type of Business (check all that apply)

[ ] Manufacturer	[ ] Grocery/Supermarket
[ ] Machine Shop	[ ] Convenience Store
[ ] Auto Repair Shop	[ ] Retail Store
[ ] Service Station	[ ] Shopping Center
[ ] Car Wash	[ ] Funeral Home
[ ] Laundromat	[ ] Hair Salon/Barbershop
[ ] Food Processor	[ ] Nail Salon
[ ] Restaurant/Food Service	[ ] Business Office
[ ] Bakery	[ ] Hotel/Motel
[ ] Hospital	[ ] Nursing Home
[ ] Dental Office	[ ] School/Church
[ ] Medical Office	[ ] Warehouse
[ ] Veterinarian Office	[ ] Other (specify) _____

5. This is (check all that apply):
   - [ ] New construction less than five (5) acres
   - [ ] New construction five (5) acres or greater
   - [ ] Renovation to Existing Building
   - [ ] Addition to Existing Building
   - [ ]Multi-Unit Building

6. Check any of the following treatment devices to be employed on-site:

[ ] Grease Trap	[ ] Floor drain screens
[ ] Oil/water separator	[ ] Septic tank
[ ] Sedimentation/grit trap	[ ] Silver recovery unit
[ ] Sewerage treatment plant	[ ] Other (specify) _____

7. If new construction, check any of the following treatment/containment methods to be employed:

[ ] Drainage culvert covers	[ ] Silt fence
[ ] Hay bales	[ ] Detention pond
[ ] Other (specify) _____	

8. _____ Check here if hazardous materials will be stored on site

9. _____ Check here if hazardous wastes will be generated
Hazardous Waste Generator Number _____

10. Please give a thorough, detailed description of operations, including the source(s) of any wastewater entering the sanitary sewerage system or the storm drainage system, and the source of any other emissions to air, land, water, etc. from the facility:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Other documentation such as, permit applications, notices of intent, other departmental approvals and blueprints may be required in support of this form. A permit to discharge into the sewerage and/or drainage system(s) may be required from the City of Kenner Public Works Department and Department of Wastewater Operations prior to commencement of operations.

Construction sites of five (5) acres or larger must file a Notice of Intent (NOI) with the U. S. Environmental Protection Agency (EPA), to be covered under an NPDES General Permit for the discharge of stormwater from a construction site, at least two (2) days prior to the commencement of construction activities (such as site clearing or grading). A stormwater Prevention Plan must be developed for each construction site covered by this permit.

If you need assistance or have any questions, contact the City of Kenner Inspection and Code Enforcement Department at (504) 468-7200.

DO NOT WRITE BELOW THIS LINE (FOR OFFICE USE ONLY)

_____ Requires inspection by pretreatment program
_____ Requires inspection by stormwater management program
_____ Meets criteria for Food Service Operation
Put on ESC Date:_____
_____ Requires letter to determine if Food Service Operation
_____ Requires no further follow-up

Determination made by: _____ Date: _____

CITY OF KENNER
STORMWATER POLLUTION PREVENTION
CONSTRUCTION SITE INSPECTION REPORT

Date of initial contact: _____

Additional visits: _____

Project: _____

Location: _____

_____

Total Square Feet: _____

Acreage: _____ (total square feet/43,560)

Number of construction entrances: _____

General Contractor: _____

Phone: _____

Person(s) Contacted: _____

Beeper Number: _____

Phone: _____

City Inspector's Name: _____

Receiving water bodies: _____

Sedimentation traps on storm drains?

Yes [ ] No [ ] _____

Mud in storm drains?
Yes [ ] No [ ] _____

Silt fences around construction site?
Yes [ ] No [ ] _____

Entrances maintained with gravel or mulch?
Yes [ ] No [ ] _____

Stabilization practices employed?
Yes [ ] No [ ] _____

Dumpster for solid waste on site?
Yes [ ] No [ ] _____

Litter on site?
Yes [ ] No [ ] _____

Bulk Petroleum Products on site?
Yes [ ] No [ ] _____

Open or leaking drums?
Yes [ ] No [ ] _____

Cement trucks washed on site?
Yes [ ] No [ ] _____

Equipment cleaned on site?
Yes [ ] No [ ] _____

Mop sink for paints?
Yes [ ] No [ ] _____

Disposal of toxics handled properly?
Yes [ ] No [ ] _____

APPENDIX L

Pollution Prevention/Good Housekeeping for Municipal Operations

Employee Training and Education Manual

Signature Acknowledgement Form

I, _____ have read the Pollution Prevention and Good Housekeeping for Municipal Operations Manual for the City of Kenner and understand the hazards associated with my work activities and the controls in place to mitigate those hazards. I understand the environmental aspects of my work activities and will continually work to minimize waste generated and look for areas of improvement. I will continue to work to eliminate any contamination to the Municipal Separate Storm Sewer System in the City of Kenner.

_____	_____
Signature	Job Title
_____	_____
Name (Print)	Date

This form shall be filed in the City of Kenner Personnel Folder for each employee that it applies to and in file at the City of Kenner Public Works. Dept..

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Materials Management and Spill Response and Prevention 20

Introduction

The Pollution Prevention/Good Housekeeping for Municipal Operations manual is used for educating City of Kenner employees on measures of the regulated municipal separate storm sewer system (MS4). It is required to be included in the City of Kenner's storm water management program to meet the conditions of its National Pollutant Discharge Elimination System (NPDES) permit.

Pollution Prevention/Good Housekeeping for municipal operations is a key element of the MS4 stormwater management program. This measure requires the MS4 operator to examine and subsequently alter their own actions to help ensure a reduction 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;
(2) Results from actions such as environmentally damaging land development and flood management practices or poor maintenance of storm sewer systems.

While this measure is meant primarily to improve or protect receiving water quality by altering municipal or facility operations, it also can result in a cost savings for the MS4 operator, since proper and timely maintenance of storm sewer systems can help avoid repair costs from damage caused by age and neglect.

Recognizing the benefits of pollution prevention practices, the rule requires an operator of a regulated MS4 to:

- Develop and implement an operation and maintenance program with the ultimate goal of preventing or reducing pollutant runoff from municipal operations into the storm sewer system.
- Include employee training manual on how to incorporate pollution prevention/good housekeeping techniques into municipal operations such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance. To minimize duplication of effort and conserve resources, the MS4 operator can use training materials that are available from EPA, their State or Tribe, or relevant organizations.
- Determine the appropriate best management practices (BMPs) and measurable goals for this minimum control measure.

The intent of this control measure is to ensure that existing municipal, State or Federal operations are performed in ways that will minimize contamination of stormwater discharges. EPA encourages the MS4 operator to consider the following components when developing their program for this measure:

- Maintenance activities, maintenance schedules, and long-term inspection procedures for structural and non-structural controls to reduce floatables and other pollutants discharged from the separate storm sewers;

- Controls for reducing or eliminating the discharge of pollutants from areas such as roads and parking lots, maintenance and storage yards (including salt/sand storage and snow disposal areas), and waste transfer stations. These controls could include programs that promote recycling (to reduce litter), minimize pesticide use, and ensure the proper disposal of animal waste;
- Procedures for the proper disposal of waste removed from separate storm sewer systems and areas listed in the bullet above, including dredge spoil, accumulated sediments, floatables, and other debris; and
- Ways to ensure that new flood management projects assess the impacts on water quality and examine existing projects for incorporation of additional water quality protection devices or practices. EPA encourages coordination with flood control managers for the purpose of identifying and addressing environmental impacts from such projects.

Measurable goals, which are required for each minimum control measure, are meant to gauge permit compliance and program effectiveness. The measurable goals, as well as the BMPs, should consider the needs and characteristics of the operator and the area served by its MS4. The measurable goals should be chosen using an integrated goals approach that fully addresses the requirements and intent of the minimum control measure. EPA has developed a Measurable Goals Guidance for MS4s that is designed to help program managers comply with the requirement to develop measurable goals. The guidance presents an approach for MS4 operators to develop measurable goals as part of their stormwater management plan.

Measurable goals for the program will include:

- Provide a Pollution Prevention/Good Housekeeping manual for municipal employees involved in activities with the potential to pollute the storm sewer system to educate them on pollution prevention.
- Training will be provided every 5 years which will cover the length of each permit period.
- All new employees for Public Works, Code Enforcement, and the Fire Department will be required to read and sign that they understand and will adhere to the pollution prevention/ good housekeeping stipulations in the manual.

A municipality's capabilities, the nature of existing pollution and its sources, and waterbody and watershed characteristics are important factors that may warrant program adjustments and influence such decisions as:

- BMP priorities and selection
- Scheduling and frequency of BMP implementation
- Targeting of different operations or facilities for primary emphasis
- Need for more advanced technology or system component upgrades or repairs
- Need for fostering partnerships with businesses or other public entities within the Worker training priorities

The watershed (including waterbodies) characteristics, existing pollution and sources of pollution are interrelated. Together, they should guide a municipality in determining which types of operations or facilities and which general locations are most important to address first. The likelihood that an operation or facility may store or release a high priority pollutant and the proximity of that operation or facility to a high priority waterbody are the most important considerations.

Municipal Capabilities and Existing Pollutants

Beyond the constraints of a municipality's resources (staff, infrastructure, equipment), the significance of pollution sources in the watershed outside of the municipality or not under municipal control directly affects the potential to achieve results through the municipal pollution prevention/good housekeeping program. The opportunity for relatively clean runoff to contact potential pollutant sources must be minimized. This may be controlling direct precipitation or meltwater, roof runoff, or other sheet or channel runoff. Such exposure, even in areas not close to priority waterbodies, may be assigned a high priority for BMP implementation.

Guiding Principles for Stormwater Pollution Prevention

Implementing municipal pollution prevention and good housekeeping programs should also be based on a series of guiding principles. The following listing of such principles may support decisions on BMP selection and targeting of more important operations and facilities. They may also serve to develop employee capabilities, improve coordination with other non-municipal efforts, and facilitate measurement of progress in reducing stormwater pollution. The "common sense" nature of these suggestions, while not required, can provide a useful perspective and all are considered to be worthy of attention.

1. Prevent Pollution at its Source
Controlling pollutants at their source and preventing their wider release is more efficient and cost-effective than removing them from stormwater runoff or other water treatment. Remove or capture contaminants before stormwater contact; prevent erosion; and provide multiple barriers to pollutant releases at storage and waste sites.

Examples:

- sweeping streets (abrasives removal, litter, organic debris removal)
- secondary containment at storage sites
- revegetating eroding slopes
- early capture of hydrocarbons by pretreatment vaults

2. Manage Clean Water Runoff and Minimize Pollutant Exposure to Clean Water
Prevent clean water runoff and precipitation from contacting potential pollutants and prevent mixing of clean runoff with polluted water flows.

Examples:

- structural cover of storage sites
- roof drainage management
- site drainage design/runoff diversion
- maximize infiltration of runoff

3. Minimize Use of Potential Pollutants
Examine municipal use of all chemicals and other potential pollutants and identify methods of eliminating, reducing or better targeting their use in municipal operations and facilities (including alternative products).

Examples:

- reduced or alternative pesticide use
- reduced fertilizer use
- reduced road salt and abrasives use
- reduced or alternative exterior cleaning product use

4. Plan for Spills and Accidents
Develop spill prevention and response policies and procedures for ALL facilities that use or store chemicals (not just petroleum).

Examples:

- provide secondary containment
- equip facility to handle any size of spill
- assign responsible person/team for response
- post procedures and emergency contacts

5. Practice Preventive Maintenance
Regularly inspect components of stormwater collection, conveyance and treatment system; regularly inspect machinery, pipes, storage tanks and other equipment for leaks or worn parts; regularly calibrate application equipment (salts, pesticides, fertilizers); plan for system upgrades and component replacements and repairs.

Examples:

- containment of minor leaks and spills with drip pans, absorbent pads
- use of dry cleanup methods rather than washing
- establish inspection calendar and incorporate into records/data system
- establish equipment maintenance and calibration calendar and incorporate into records/data system

6. Identify Potential Pollution Sources
Identify all municipal facilities and operations that could impact stormwater quality; identify potential pollution sources at each site or for each activity; identify, map and inspect the facility's stormwater drainage system.

Examples:

- all material storage sites, especially those with any outside loading or unloading operations
- all fueling sites
- all drainage structures and components
- all sites with animal waste concentrations
- pesticide/fertilizer application areas
- vehicle washing areas

7. Plan New Facilities to Include Stormwater Pollution Prevention
Include a stormwater pollution prevention component in all new municipal facilities and activities; site new facilities to minimize waterbody impacts.

Examples:

- minimize impervious surfaces
- maintain stream buffers
- infiltrate runoff
- eliminate pollutant exposure
- provide spill containment measures and structural stormwater management practices

8. Improve Data Collection and Records Maintenance
Emphasize improvement of data collection and records maintenance to address higher priority pollution sources and contaminants; improvement of geographic information; and unification of data management across all relevant municipal departments and operations.

Examples:

- maintain chemical usage data (pesticides, fertilizers, salts, solvents, etc.)
- maintain inspection, repair, maintenance records
- integrate records maintenance across departments, based on priorities (e.g., pesticide usage)

9. Train and Reward Employees
Train employees regarding stormwater pollution and prevention practices; identify emergency contacts and reporting procedures; seek employee ideas on pollution prevention methods and priorities; reward employees who participate in prevention program.

Examples:

- general education on importance of stormwater pollution control to all employees
- targeted training on policies, procedures and best management practices for maintenance staff
- retraining and continuing education on routine basis for maintenance staff
- bulletin boards, web postings or other options for BMP news and updates.
- establish and continue employee rewards or recognition program

10. Improve Communications and Coordination

Emphasize communication and coordination across key municipal departments and operations; coordinate stormwater and pollution prevention activities with organizations and institutions; develop public outreach and citizen participation regarding municipal pollution prevention activities.

Examples:

- establish a municipal pollution prevention team (public works director, planner engineer, water/sewer operator, highway, etc.)
- work with local educational institutions
- include stormwater pollution prevention column in municipal newsletter and bulletins
- post informational signs at special project sites
- encourage participation by citizens and businesses in special events such as hazardous waste collection events or community cleanup days.

Automobile Maintenance

Pollution Prevention/Good Housekeeping for Municipal Operations

Description
This pollution prevention measure involves creating a program of targeted outreach and training for municipal fleets (public works, school buses, fire, police, and parks) involved in automobile maintenance about practices that control pollutants and reduce storm water impacts. Automotive maintenance facilities are considered to be storm water "hot spots" where significant loads of hydrocarbons, trace metals, and other pollutants can be produced that can affect the quality of storm water runoff. Some of the waste types generated at automobile maintenance facilities include the following:

- Solvents (paints and paint thinners)
- Antifreeze
- Brake fluid and brake lining
- Batteries
- Motor oils
- Fuels (gasoline, diesel, kerosene)
- Lubricating grease.

Automotive maintenance facilities' discharges to storm and sanitary sewer systems are highly regulated. Fluid spills and improper disposal of materials result in pollutants, heavy metals, and toxic materials entering ground and surface water supplies, creating public health and environmental risks. Alteration of practices involving the cleanup and storage of automotive fluids and cleaning of vehicle parts can help reduce the influence of automotive maintenance practices on storm water runoff and local water supplies.

Applicability
The automotive repair industry is the leader in number of generators and amount of total waste produced for small quantity generators of hazardous waste in the United States. Common activities at maintenance shops that generate this waste include the cleaning of parts, changing of vehicle fluids, and replacement and repair of equipment. Since the use of automobiles is not limited by geographic or climatic conditions, maintenance facilities are present nationwide and the concerns involving waste created during vehicle repair are similar across the country. In urban areas, the impacts of automotive maintenance practices are more pronounced due to the greater concentrations of vehicles and higher levels of impervious surface.

Design Considerations
The most effective way to minimize the impacts of automotive maintenance generated waste is by preventing its production. Pollution prevention programs seeking to reduce liquid discharges to sewer and storm drains from automotive maintenance should stress techniques that allow facilities to run a dry shop.

Among the suggestions for creating a dry operation are the following:

- Spills should be cleaned up immediately, and water should not be used for clean up whenever possible.
- Floor drains that are connected to the sanitary sewer should be sealed off.
- A solvent service might be hired to supply parts and cleaning materials, and to collect the spent solvent.

Those facilities that are not able to eliminate discharges to the sanitary sewer system may be required to treat their wastewater prior to release from the site. There are several methods for preventing untreated wastewater from entering storm water runoff. Some municipalities require the use of structural treatment devices to pretreat wastes before they are discharged for treatment at sewage treatment plants. These devices prevent oils and grease from entering the sewer system, often by separating the oil and solids from the water through settling or filtration. Other methods are also available to help prevent or reduce the discharge of pollutants from vehicle maintenance. These practices apply to maintaining municipal fleets, including school buses, public works, fire, police, parks, and other types of municipal fleets. This list is not comprehensive, and many other suggestions for reducing impacts are available to those responsible for managing storm water runoff from maintenance facilities.

Pollution Prevention Method Suggested Activities

Waste Reduction

- The number of solvents used should be kept to a minimum to make recycling easier and to reduce hazardous waste management cost.
- Do all liquid cleaning at a centralized station to ensure that solvents and residues stay in one area.
- Locate drip pans and draining boards to direct solvents back into solvent sink or holding tank for reuse.

Using Safer Alternatives

- Use non-hazardous cleaners when possible.
- Replace chlorinated organic solvents with nonchlorinated ones like kerosene or mineral spirits.
- Recycled products such as engines, oil, transmission fluid, antifreeze, and hydraulic fluid can be purchased to support the market of recycled products.

Spill Clean Up

- Use as little water as possible to clean spills leaks, and drips.
- Rags should be used to clean small spills, dry absorbent material for larger spills, and a mop for general cleanup. Mop water can be disposed of via the sink or toilet to the sanitary sewer.

Good Housekeeping

- Employee training and public outreach are necessary to reinforce proper disposal practices.
- Conduct maintenance work such as fluid changes indoors.
- Update facility schematics to accurately reflect all plumbing connections.
- Parked vehicles should be monitored closely for leaks and pans placed under any leaks to collect the fluids for proper disposal or recycling.
- Promptly transfer used fluids to recycling drums or hazardous waste containers.
- Do not pour liquid waste down floor drains, sinks, or outdoor storm drain inlets.
- Obtain and use drain mats to cover drains in the event of a spill.
- Store cracked batteries in leakproof secondary containers.

Parts Cleaning

- Use detergent-based or water-based cleaning systems instead of organic solvent degreasers.
- Steam cleaning and pressure washing may be used instead of solvent parts cleaning. The wastewater generated from steam cleaning can be discharged to the on-site oil/water separator.

Maintenance Considerations

For facilities responsible for pretreating their wastewater prior to discharging, the proper functioning of structural BMPs is an important maintenance consideration. Routine cleanout of oil and grease is required for the devices to maintain their effectiveness, usually at least once a month. During periods of heavy rainfall, cleanout is required more often to ensure that pollutants are not washed through the trap. Sediment removal is also required on a regular basis to keep the device working efficiently.

Effectiveness

The effectiveness of automotive maintenance best management practices at removing pollutants is difficult to quantify. However, there are studies that demonstrate the effect pollution prevention practices can have in reducing impacts from automotive fluids.

Vehicle Washing

Pollution Prevention/Good Housekeeping for Municipal Operations

Description
This management measure involves educating municipal fleets (public works, school buses, fire, police, and parks) on the water quality impacts of the outdoor washing of automobiles and how to avoid allowing polluted runoff to enter the storm drain system. Outdoor car washing has the potential to result in a high load of nutrients, metals, and hydrocarbons during dry weather conditions in many watersheds, as the detergent-rich water used to wash the grime off our cars flows down the street and into the storm drain. Commercial car wash facilities often recycle their water or are required to treat their wash water discharge prior to release to the sanitary sewer system.

Applicability
This activity is not limited by geographic region, but its impact on water quality is greatest in more urbanized areas with higher concentrations of automobiles.

Implementation
The development of a prevention program to reduce the impact of car wash runoff includes outreach on management practices to reduce discharges to storm drains. Some of these management practices include the following:

- Using a commercial car wash.
- Washing cars on gravel, grass, or other permeable surfaces.
- Pumping soapy water from car washes into a sanitary sewer drain.
- If pumping into a drain is not feasible, pumping car wash water onto grass or landscaping to provide filtration.
- Using hoses with nozzles that automatically turn off when left unattended.
- Using only biodegradable soaps.

Storm drain stenciling programs emphasizing the connection between the storm drain system and runoff can also help reinforce the idea that car washing activities can affect local water quality. Good housekeeping practices can minimize the risk of contamination from wash water discharges.
The following are some general best management practices that those municipal departments with their own vehicle washing facilities can incorporate to control the water quality impacts of wash water discharges:

- All vehicle washing should be done in areas designed to collect and hold the wash and rinse water or effluent generated. Wash water effluent should be recycled, collected, or treated prior to discharge to the sanitary sewer system.
- Pressure cleaning and steam cleaning should be done off-site to avoid generating runoff with high pollutant concentrations. If done on-site, no pressure cleaning and steam cleaning should be done in areas designated as wellhead protection areas for public water supply.

- On-site storm drain locations should be mapped to avoid discharges to the storm drain system.
- Spills should be immediately contained and treated.

Effectiveness

The effectiveness of car washing management practices at reducing nonpoint source pollutant loads has yet to be measured accurately. Due to the diffuse nature of nonpoint source pollution, it is often difficult to determine the exact impact of a particular pollution prevention measure at reducing pollutant loading. While not much is known about the water quality of car wash water, it is clear that car washing is a common watershed behavior.

Parking Lot and Street Cleaning

Pollution Prevention/Good Housekeeping for Municipal Operations

Description
This management measure involves employing pavement cleaning practices such as street sweeping on a regular basis to minimize pollutant export to receiving waters. These cleaning practices are designed to remove from road and parking lot surfaces sediment debris and other pollutants that are a potential source of pollution impacting urban waterways.

Applicability
Street sweeping is practiced in most urban areas, often as an aesthetic practice to remove sediment buildup and large debris from curb gutters. In colder climates, street sweeping is used during the spring snowmelt to reduce pollutant loads from road salt and to reduce sand export to receiving waters. The frequency and intensity of rainfall for a region are also key variables in determining how streets need to be swept to obtain a desired removal efficiency. Other factors that affect a street sweeper's ability to reduce nonpoint pollution include the condition of the street, its geographical location, the operator's skill, the presence of parked cars, and the amount of impervious area devoted to rooftop.

Design Considerations
One factor considered most essential to the success of street sweeping as a pollutant removal practice is use of the most sophisticated sweepers available. Innovations in sweeper technology have improved the performance of these machines at removing finer sediment particles, especially for machines that use vacuum-assisted dry sweeping to remove particulate matter. By using the most sophisticated sweepers in areas with the highest pollutant loads, greater reductions in sediment and accompanied pollutants can be realized.

Another important aspect of street sweeping programs is the ability to regulate parking. The ability to impose parking regulations in densely populated areas and on heavily traveled roads is essential. The frequency and location of street sweeping is another consideration for any program. How often and what roads to sweep are determined by the program budget and the level of pollutant removal the program wishes to achieve. More frequent sweeping operations yielded only a small increment in additional removal. Sweeping of parking lots is also employed as a nonstructural management practice for industrial sites. This sweeping involves using brooms to remove small quantities of dry chemicals and solids from areas that are exposed to rainfall or storm water runoff. While the effectiveness of this practice at pollutant removal is unknown, the sweeping and proper disposal of materials is a reasonably inexpensive method of pollution prevention that requires no special training or equipment.

Limitations
For street sweeping, the high cost of current sweeper technologies is a large limitation to using this management practice. With costs approaching $200,000 for some of the newer sweeper technologies, storm water managers with limited budgets must consider the high

equipment cost together with the uncertainty about pollutant removal efficiency to decide whether a sweeping program is an attractive management option. The potential inability to restrict parking in urban areas may present another limitation. Other possible limitations include the need for sweeper operator training, the inability of current sweeper technology to remove oil and grease, and the lack of solid evidence regarding the expected levels of pollutant removal. Proper disposal of swept materials might also be a limitation.

Maintenance Considerations

Street cleaning programs require a significant investment of capital and a yearly operation and maintenance budget. Sweepers have a useful life of about four years, and proper maintenance can greatly improve sweeping efficiency. Arrangements for disposal of the swept material collected must also be made, as well as accurate tracking of the streets swept and the frequency of sweeping.

Effectiveness

While actual reductions in storm water pollutants have not yet been established, information on the reductions in finer sediment particles that carry a significant portion of the storm water pollutant load is available. A benefit of high-efficiency street sweeping is that by capturing pollutants before they are made soluble by rainwater, the need for structural storm water control measures might be reduced. Structural controls often require costly added measures, such as adding filters to remove some of these pollutants and requiring regular manpower to change-out filters. Street sweepers that can show a significant level of sediment removal efficiency may prove to be more cost-effective than certain structural controls, especially in more urbanized areas with greater areas of pavement.

Storm Drain System Cleaning

Pollution Prevention/Good Housekeeping for Municipal Operations

Description
Storm drain systems need to be cleaned regularly. Routine cleaning reduces the amount of pollutants, trash, and debris both in the storm drain system and in receiving waters. Clogged drains and storm drain inlets can cause the drains to overflow, leading to increased erosion. Benefits of cleaning include increased dissolved oxygen, reduced levels of bacteria, and support of instream habitat. Areas with relatively flat grades or low flows should be given special attention because they rarely achieve high enough flows to flush themselves.

Applicability
This measure is applicable to all storm drain systems. The same principles can be applied to material and waste handling areas, paved and vegetated areas, waterways, and new development projects.

Limitations

While cleaning is necessary for all storm drain systems, there are limitations as follows:

- Cleaning the storm drain by flushing is more successful for pipes smaller than 36 inches in diameter.
- A water source is necessary for cleaning. The wastewater must be collected and treated once flushed through the system.
- The collected wastewater must be trucked over to a disposal site such as a wastewater treatment plant or landfill.
- The efficiency of storm system flushing decreases when the length of line being cleaned exceeds 700 feet.

Hazardous Materials Storage

Pollution Prevention/Good Housekeeping for Municipal Operations

Description
Failure to properly store hazardous materials dramatically increases the probability that they will end up in local waterways. Practices such as covering hazardous materials or even storing them properly, can have dramatic impacts.

Applicability
Hazardous material storage is relevant to both urban and rural settings and all geographic regions. The effects of hazardous material leakage may be more pronounced in areas with heavier rainfall, due to the greater volume of runoff.

Siting and Design Considerations
EPA has outlined some management considerations for hazardous materials. They are as follows:

- Ensuring sufficient aisle space to provide access for inspections and to improve the ease of material transport.
- Storing materials well away from high-traffic areas to reduce the likelihood of accidents that might cause spills or damage to drums, bags, or containers.
- Stacking containers in accordance with the manufacturers' directions to avoid damaging the container or the product itself.
- Storing containers on pallets or equivalent structures. This facilitates inspection for leaks and prevents the containers from coming into contact with wet floors, which can cause corrosion. This consideration also reduces the incidence of damage by pests (insects, rodents, etc.).
- Delegating the responsibility for management of hazardous materials to personnel trained and experienced in hazardous substance management. Covering hazardous materials and areas where such materials are handled reduces potential contact with storm water and wind. Storage areas, outdoor material deposits, loading and unloading areas, and raw materials should all be covered or enclosed. Priority should be given to locations of the most hazardous substances.

Maintenance Considerations
Maintenance of hazardous material storage areas consists mostly of inspection and employee training. Storage spaces and containers should be routinely inspected for leaks, signs of cracks or deterioration, or any other signs of release.

Effectiveness
Improved storage of hazardous materials is effective at reducing contamination of storm water runoff and receiving waters if proper storage and maintenance techniques are used.

Road Salt/ Sand Application and Storage

Pollution Prevention/Good Housekeeping for Municipal Operations

Description
The application and storage of deicing materials, most commonly salts such as sodium chloride, can lead to water quality problems for surrounding areas. Salts, gravel, sand, and other materials are applied to highways and roads to reduce the amount of ice during winter storm events. Salts lower the melting point of ice, allowing roadways to stay free of ice buildup during cold winters. Sand and gravel increase traction on the road, making travel safer.

Applicability
This practice is applicable to areas that receive snowfall in winter months and require deicing materials. Municipalities in these areas must ensure proper storage and application for equipment and materials.

Siting and Design Considerations
Many of the problems associated with contamination of local waterways stem from the improper storage of deicing materials. Salts are very soluble when they come into contact with storm water. They can migrate into ground water used for public water supplies and also contaminate surface waters.

Limitations
Road salt is the least expensive material for deicing operations; however, once the full social costs are taken into account, alternative products and better management and application of salts become increasingly attractive options.

Maintenance Considerations
Covering stored road salts may be costly; however, the benefits are greater than the perceived costs. Storing road salts correctly prevents the salt from lumping together, which makes it easier to load and apply. In addition, covering salt storage piles reduces salt loss from storm water runoff and potential contamination to streams, aquifers, and estuarine areas.

Materials Management and Spill Response and Prevention

Pollution Prevention/Good Housekeeping for Municipal Operations

Description
Spill response and prevention plans should clearly state measures to stop the source of a spill, contain the spill, clean up the spill, dispose of contaminated materials, and train personnel to prevent and control future spills. Such products must be handled properly in all stages of their useful lives. Materials management entails the selection of the individual product, the correct use and storage of the product, and the responsible disposal of associated waste(s).

Applicability
Spill prevention and control plans are applicable to construction sites where hazardous wastes are stored or used. Hazardous wastes include pesticides, paints, cleaners, petroleum products, fertilizers, and solvents. In many cases, industries can implement simple housekeeping practices in order to manage materials more effectively. Proper management reduces the likelihood of accidental spills or releases of hazardous materials during storm events. In addition, health and safety conditions at the facility will improve.

Siting and Design Considerations
Identify potential spill or source areas, such as loading and unloading, storage, and processing areas, places where dust or particulate matter is generated, and areas designated for waste disposal. Also, spill potential should be evaluated for stationary facilities, including manufacturing areas, warehouses, service stations, parking lots, and access roads. Material handling procedures and storage requirements should be defined and actions taken to reduce spill potential and impacts on storm water quality. This can be achieved by:

- Recycling, reclaiming, or reusing process materials, thereby reducing the amount of process materials that are brought into the facility.
- Installing leak detection devices, overflow controls, and diversion berms
- Disconnecting any drains from processing areas that lead to the storm sewer.
- Performing preventative maintenance on storm tanks, valves, pumps, pipes, and other equipment.
- Using material transfer procedures or filling procedures for tanks and other equipment that minimize spills.
- Substituting less- or non-toxic materials for toxic materials. Provide documentation of spill response equipment and procedures to be used, ensuring that procedures are clear and concise. Give step-by-step instructions for the response to spills at a particular facility. This spill response plan can be presented as a procedural handbook or a sign.

The spill response plan should:

- Identify individuals responsible for implementing the plan.
- Define safety measures to be taken with each kind of waste.

- Specify how to notify appropriate authorities, such as police and fire departments, hospitals, or publicly-owned treatment works for assistance.
- State procedures for containing, diverting, isolating, and cleaning up the spill.
- Describe spill response equipment to be used, including safety and cleanup equipment.

Education is essential for reducing spills. By informing people of actions they can take to reduce spill potential, spills will be reduced and/or prevented. This is helpful for ensuring that spills are cleaned up in a safe, proper, and timely manner.

Maintenance Considerations

Maintenance associated with materials management should be designed to minimize the amounts of materials used and the wastes generated by industrial processes. Procedures for operation and maintenance can easily be integrated into an industry's management plan. Simple processes, such as routine cleaning of work spaces, proper collection and disposal of wastes, maintenance of machinery, regular inspections of equipment and facilities, and training employees to respond to spills or leaks, have significant effects on reducing storm water runoff. Another consideration is regular material inventories. Such inventories reduce the occurrence of overstocking hazardous materials, increase knowledge about what hazardous materials are present and how they are stored, and provide documentation of proper handling of hazardous materials.

Update the spill prevention and control plan to accommodate any changes in the site or procedures. Regularly inspect areas where spills might occur to ensure that procedures are posted and cleanup equipment is readily available.

- Identify all hazardous and nonhazardous substances present in a facility. This can be accomplished by reviewing all purchase orders for the facility and walking through the facility itself. Compile a list of all chemicals present in a facility and obtain a Material Safety Data Sheet (MSDS) for each one.
- Label all containers with the name of the chemical, unit number, expiration date, handling instructions, and health or environmental hazards. Much of this information will be found on the MSDS. Often, insufficient labeling leads to improper handling or disposal of hazardous substances.
- Make special note on the inventory of hazardous chemicals that require special handling, storage, or disposal.

Effectiveness

A spill prevention and control plan can be highly effective at reducing the risk of surface and ground water contamination. However, the plan's effectiveness is enhanced by worker training, availability of materials and equipment for cleanup, and extra time spent by management to ensure that procedures are followed.

The spill prevention and response program is under the City of Kenner's Emergency Response Plan. A crew from the emergency response team is dispatched under the Emergency Response Plan. The Fire Department is the lead agency for the clean up of spills, the hiring of contractors, and the billing of the responsible party for the cost. The 911 Hazardous Materials (HazMat) unit controls fuel or flammable material spills. The Public Works Department provides containment material to control the spill.