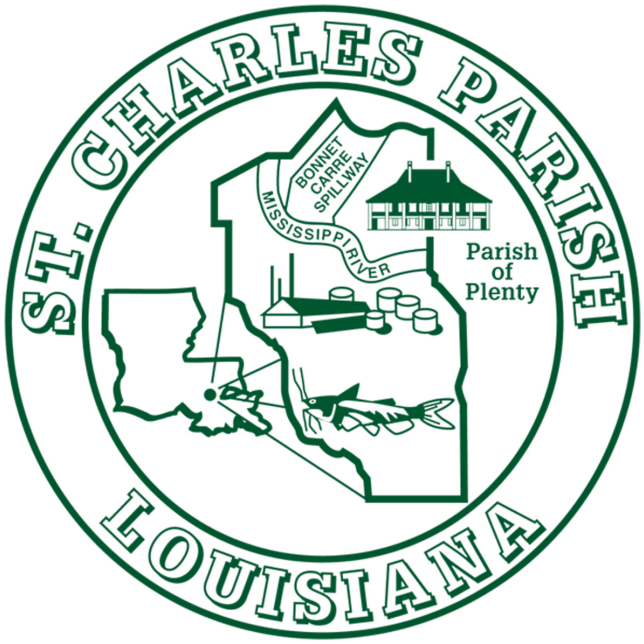
Stormwater Management Program

Revised 12/2018



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1.0 Introduction

St. Charles Parish implements this Stormwater Management Program (SWMP) in support of its' Phase II Municipal Separate Storm Sewer System (MS4) Louisiana Pollutant Discharge Elimination System (LPDES) permit. As part of the recent permit renewal, St. Charles Parish has developed and revised this SWMP to align with the most current guidance from the Louisiana Department of Environmental Quality (LDEQ).

The purpose of the SWMP is to provide a reference for current and planned strategies, responsibilities, and procedures related to stormwater management. This stormwater management program is designed to prevent harmful pollutants from being washed by stormwater runoff into the MS4 (or from being dumped directly into the MS4), then discharged from the MS4 into local water bodies.

The implementation and execution of the SWMP and MS4 program will be the responsibility of the MS4 Coordinator, hired in 2014. This position works across departments and disciplines to implement the new stormwater ordinance and execute the SWMP in compliance with the Phase II MS4 permit LAR040000. Assisting the MS4 Coordinator, the MS4 General Inspector currently inspects fuel tanks and assists with storm water-related tasks at Public Works.

The SWMP includes responsibilities and procedures for multiple departments and divisions within the Parish including:

- Parish Council
- Office of Parish President
- Planning and Zoning Commission
- Department of Public Works and Wastewater
  - MS4 Coordinator
  - Construction Inspection
  - Wastewater Department
  - Drainage Department
- Planning and Zoning Department
  - Floodplain Management
  - Permitting
- Emergency Operations Center

Other documents that are referenced in this SWMP which provide additional details on stormwater management include;

- The draft St. Charles Parish Stormwater Ordinance (Appendix A), which is available on the Parish's Public Works website: http://www.stcharlesparish-la.gov/departments/public-works-and-wastewater/-folder-92
- Drainage System Maintenance Procedures and Watershed Inspection List (Appendix B)
- The Spill Prevention Countermeasures and Control (SPCC) Plan inventory of municipal facilities (Appendix C)
- The Sewer Overflow Response Plan (SORP) developed by the Parish Wastewater Department (Appendix D)
- The Urban Stormwater Runoff; Roads, Highways, Bridges; Best Management Practices (BMPs) for Coastal Louisiana Non-Point Source Pollution – 2008 Publication by Louisiana Department of Natural Resources
- The Planning and Zoning permitting application process provides details regarding design standards and maintenance requirements.

St. Charles Parish MS4 service area covers all areas identified during the 2010 census within the Parish (Figure 1-1). The St. Charles Phase II MS4 Service area includes Destrehan, Hahnville, Luling, St. Rose, Ama, Paradis, Des Allemands, Boutte, New Sarpy, Montz, and Norco.

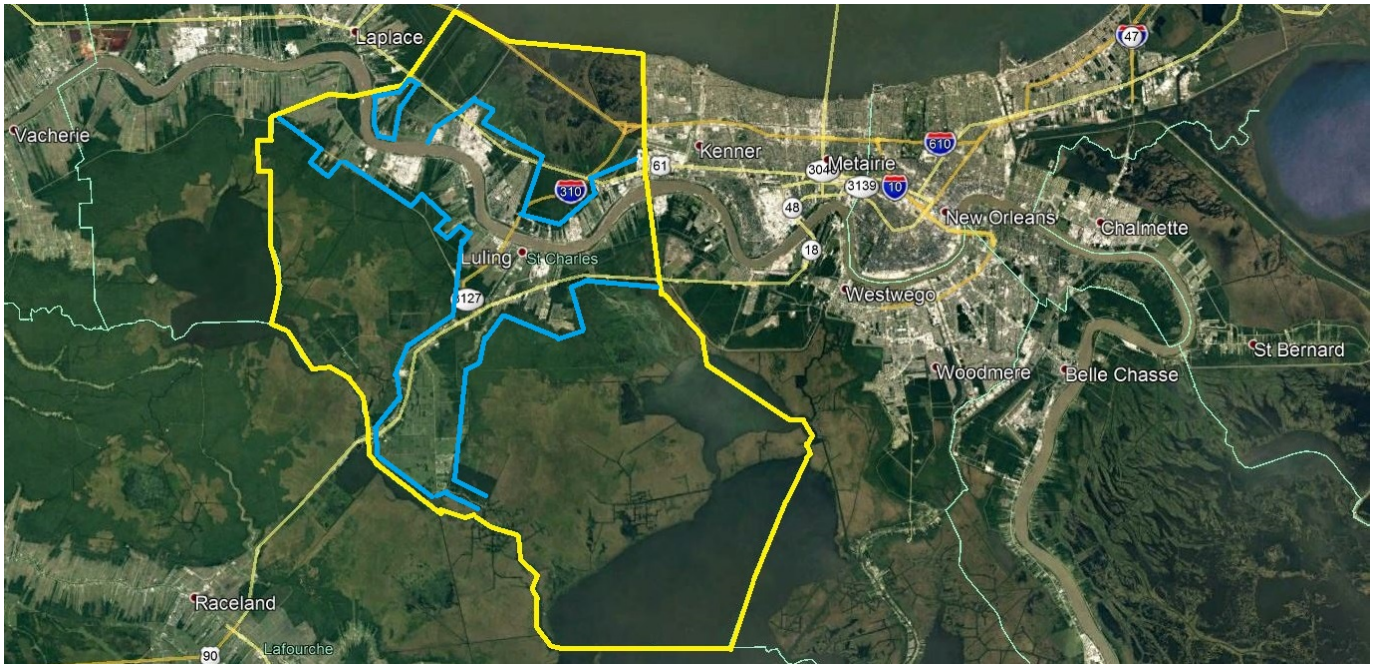
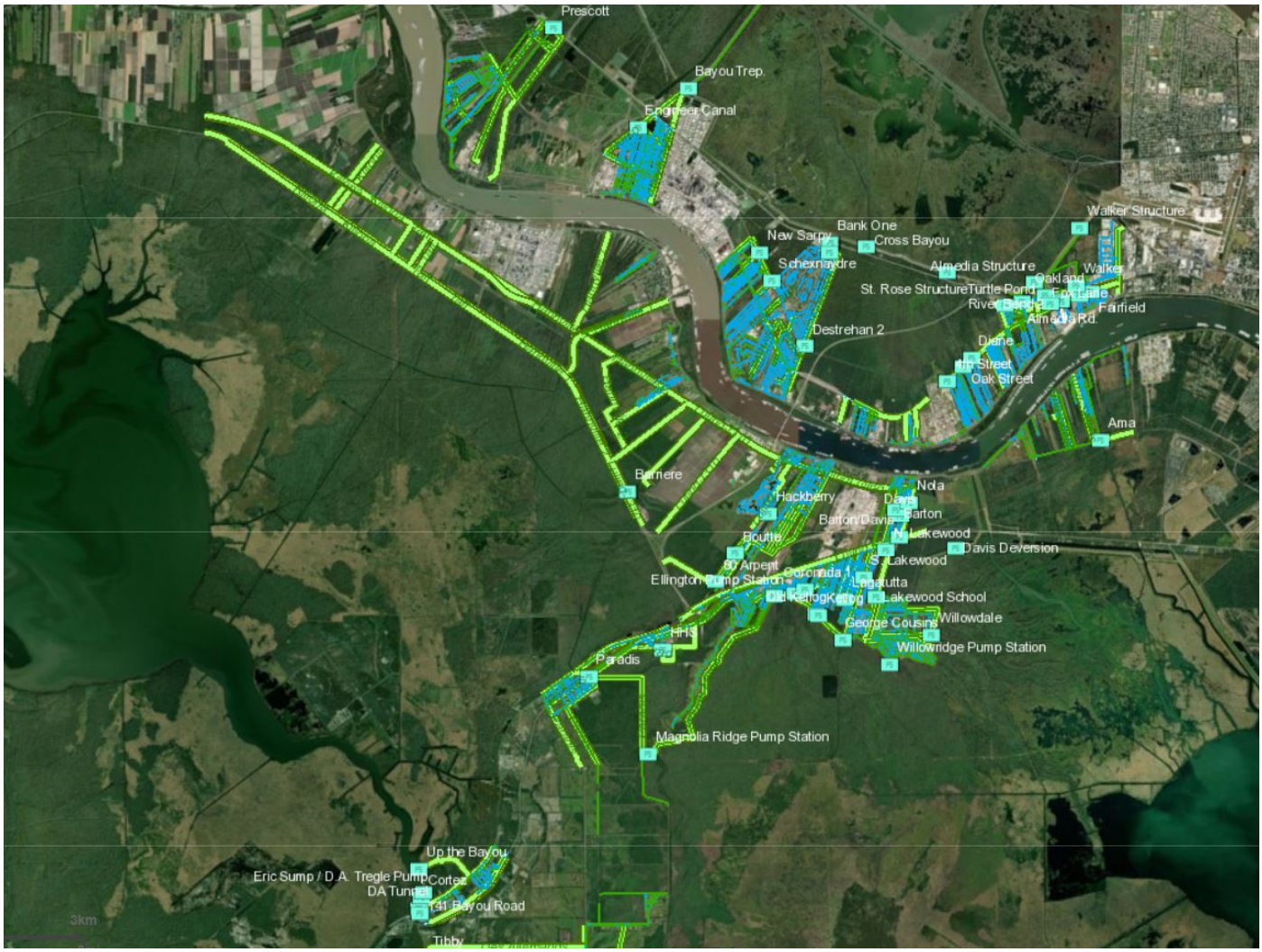


FIGURE 1-1
St. Charles Parish Stormwater Service Area

Figure 1-2
St. Charles Parish Storm Water Pump Stations



2.0 Structural and Source Control Measures

As part of its Phase II MS4 LPDES permit, St. Charles Parish is responsible for efforts related to structural and source control measures that reduce stormwater peak flows and pollutants. Specifically, procedures for the following measures are addressed in this section: (1) infrastructure inventory, inspection and maintenance, (2) planning, (3) street maintenance, (4) floodplain management, (5) pollution prevention at municipal waste facilities, and (6) application of pesticides, fertilizers, and herbicides.

2.1 Structural Stormwater Controls

Stormwater infrastructure provides the basis for controlled stormwater conveyance, and operations and maintenance activities are planned and prioritized to ensure that the MS4 is functioning properly at all times. The Parish recognizes that the more cost-effective way to manage infrastructure is not only to repair failing infrastructure but also to locate and identify the components that need to be maintained or replaced before failure occurs.

2.1.1 Structural Stormwater Controls Inventory

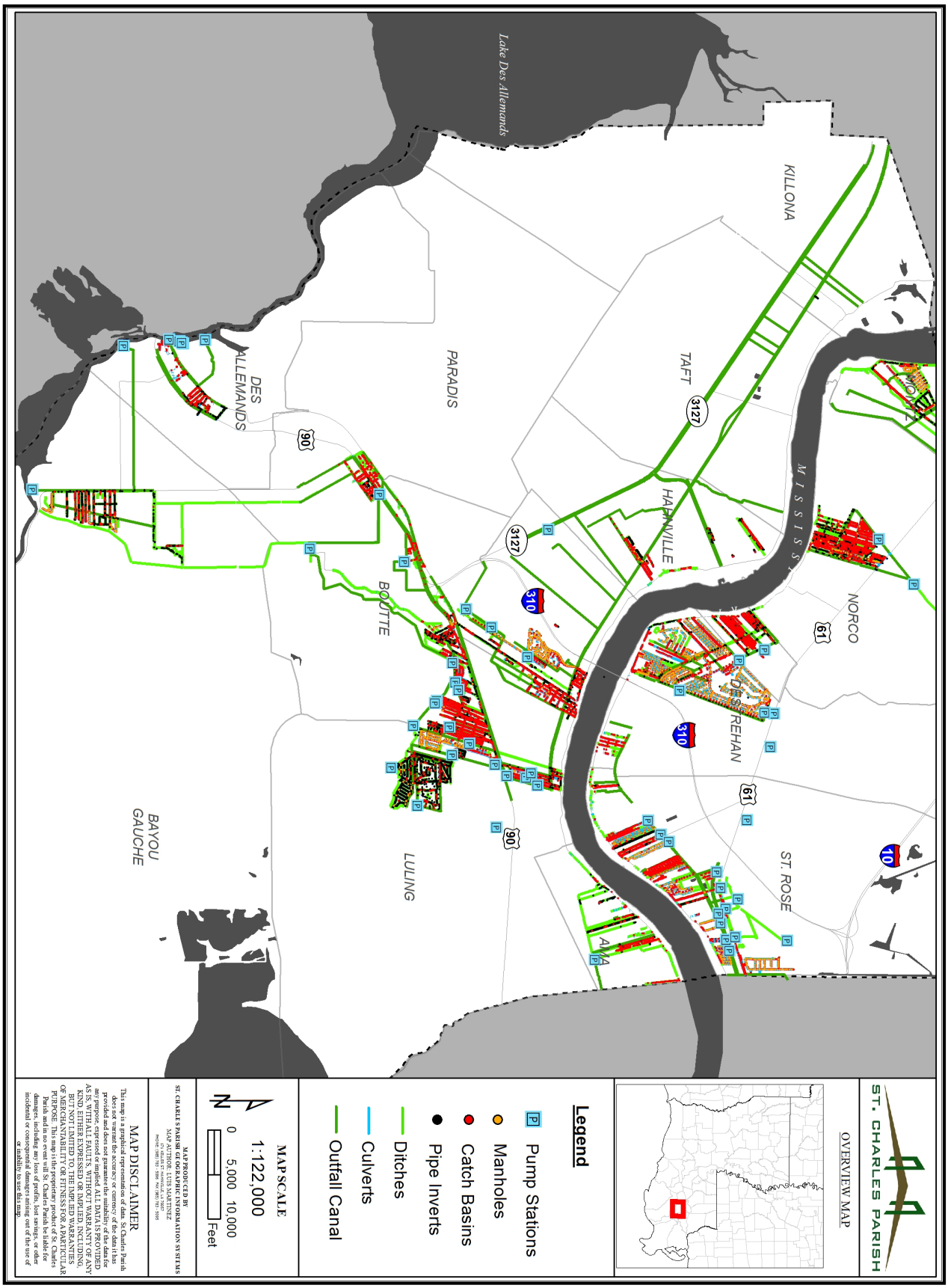
St. Charles Parish maintains an updated, searchable inventory of stormwater control and conveyance structures, including pipes, catch basins, pump stations, manholes, jack & bores, canals, and ditches, etc. located across St. Charles Parish. Inspection and maintenance teams locate individual structures, record inspection results, prioritize maintenance needs, and issue maintenance work orders. Drainage System Maintenance Procedures and Watershed Inspection List can be found in Appendix B. This inventory will be continuously updated and incorporated on an ongoing basis into the Parish's Master Drainage Plan.

Planning and Zoning and the Department of Public Works work together to continuously update the inventory of all stormwater structural controls and conveyance features in those areas of St. Charles Parish currently under MS4 jurisdiction. Review of the inventory will allow the parish to monitor increased load to pump stations due to development and increases in impervious surface areas.

St. Charles Parish will continue to refine the outfall inventory during ongoing inspections and develop revised inventories as part of the Annual Report cycle. Maps detailing the structural inventory are maintained by the Parish GIS Department and updated as necessary. The Parish's current MS4 structural inventory includes:

- 6631 catch basins
- 14,500 ditches
- 1001 drainage manholes
- 179,596 linear feet of storm drain lines

FIGURE 2-1
Map of Inventory



2.1.2 Structural Stormwater Controls Inspection and Maintenance

The Parish schedules inspections for stormwater structures that are located on both public and private property; however the Parish completes maintenance on public structures only. The St. Charles Parish Department of Public Works is responsible for the majority of the inspections, providing regular inspections for detention ponds on their property. Maintenance for privately owned infrastructure is carried out by the private land owner as described in the proposed Chapter 25 of the St. Charles Parish Code of Ordinances, see Appendix A. However, St. Charles Parish recognizes its role in facilitating maintenance activities and addressing regional stormwater planning needs. When the proposed ordinance is implemented, St. Charles Parish staff will periodically inspect private facilities to ensure that proper maintenance has been completed by the property owner and structures are functioning as designed. Privately owned stormwater infrastructure in St. Charles Parish, including any stormwater management facility which services a single lot, subdivisions, or commercial and industrial development, should be maintained by the private owner.

The Parish has placed it's inventory of facilities on hold pending expansion of the MS4 subsection of Public Works. In the interim, St. Charles Parish uses the industrial/commercial Wastewater account list.

Dumping and drainage complaints are received a variety of ways including; citizen complaint, website, Parish council. Each complaint is tracked as a work order by the Department of Public Works. Emergency situations are addressed immediately; others generally are addressed chronologically. During each inspection, conditions are documented on an inspection form , and maintenance work orders are prepared if necessary. Once maintenance is conducted, information is documented in the structures inventory regarding the work performed, final condition, and any follow-up needs of the structure.

When catch basins and outfalls are inspected, the Parish also inspects other adjacent stormwater infrastructure, such as culverts, conveyance channels, drop inlets, pipe discharges, weir walls, stand pipes, and junction boxes. St. Charles Parish prioritizes stormwater control structure inspections. Additionally, the Parish conducts inspections of storm drain lines on an as-needed basis, or when a problem is encountered during structure inspections. This approach allows staff to respond efficiently to both local and watershed-wide problems, while documenting the condition of other structures in adjacent areas.

Maintenance and repair of stormwater structures may include such actions as cleaning or replacing drains, replacing catch basin lids, unclogging pipes and culverts, maintaining rights-of-way, and removing litter where needed. Routine maintenance requirements and further details regarding private structure inspections and maintenance are discussed below.

Routine Maintenance Requirements

The following routine maintenance activities are included as components of a local operations and maintenance program:

- Catch basins, culverts, and structural stormwater control facilities inspected on a routine basis.
- Damage or deterioration threatening the structural integrity of any component, conveyance, or facility will be repaired as soon as possible.
- Catch basins will be cleaned if accumulated sediment, debris or other deposits are equal to or greater than one-third the depth from the basin to the invert of the lowest pipe into or out of the basin.
- Storm drain pipes will be cleaned if accumulated sediment, debris, or other deposits are blocking more than 20 percent of the pipe diameter.
- Drainage ditches will be cleaned if accumulated sediment, debris, or other deposits exceed 25 percent of the design depth.
- Woody debris and other blockages will be removed from culverts and other critical conveyance components.

Stormwater Structures

- Sediments excavated from stormwater ponds that do not receive runoff from designated hotspots are not considered toxic or hazardous material and can be safely disposed by either land application or landfilling. Sediment testing may be required prior to sediment disposal when a hotspot land use is present.
- Periodic mowing of the easement surrounding pond is only required along maintenance ROWs and the embankment. The remaining areas can be managed as a meadow (mowing every other year) or forest.
- Care should be exercised during pond drawdowns to prevent downstream discharge of sediments or high flows with erosive velocities.

Oil/Grit (Gravity) Separators

- Additional maintenance requirements for a proprietary system should be obtained from the manufacturer.
- Failure to provide adequate inspection and maintenance can result in the re-suspension of accumulated solids. Frequency of inspection and maintenance is dependent on land use, climatological conditions, and the design of gravity separator.
- Proper disposal of oil, solids, and floatables removed from the gravity separator must be ensured.

The Parish inspects each inventoried stormwater structure (i.e. catch basins, detention ponds, storm drain lines, ditches, etc.) in accordance with Drainage System Maintenance Procedures and Watershed Inspections found in Appendix B to identify potential illicit discharges. St. Charles Parish prioritizes stormwater control structure inspections based on those that discharge to stormwater impaired 303(d)-listed waters and those resulting from complaint investigations. St. Charles Parish discharges to 2 water bodies on the 303d list, Bayou Trepagnier-Norco to Bayou Labranche (subsegment 041202) and Duncan Canal headwaters to Lake Ponchartrain (also known as Parish Line Canal - subsegment 041203). The Parish has contracted Elos Environmental to provide an analysis and testing program to monitor these water bodies for the identified impairment, Dissolved Oxygen from natural sources and municipal point source discharges. Elos Environmental is authorized by the St. Charles Council under Parish Ord. 18-11-3.

2.1.3 Inspection and Maintenance for Privately-owned Facilities

Privately owned detention ponds and other BMPs are maintained by the individual property owners in St. Charles Parish. New developments, residential as well as commercial, are required to sign a Post-Construction Stormwater Permit as described in proposed Chapter 25 stormwater ordinance (Appendix A) before obtaining their certificate of occupancy. The Permit facilitates the identification of a responsible party if any maintenance issue occurs. A MS4 Certification may be issued by the MS4 Coordinator in lieu of a Post-Construction Stormwater Permit, showing compliance in submitted documentation throughout the construction process and establishing responsibility in maintaining storm water controls.

Structural Storm Water controls for subdivision and large commercial development will continue to meet the performance standards as stipulated in the original design and approved by the Parish. Routine inspections will be performed to monitor the structural Storm Water controls and maintenance will be required, as necessary, to ensure the Storm Water control continues to perform as designed. Typically in large residential subdivisions, once construction is completed control over storm water conveyances is transferred to the Parish, who takes over responsibilities for maintenance & repair. Large commercial/industrial facilities retain control of storm water-related infrastructure.

A Storm Water Maintenance Permit will be required which will specify inspections and maintenance activities, allowing tracking of the effectiveness and maintenance of existing structural BMPs. All structural BMPs in a single development will be covered under one Storm Water Maintenance Permit. A Storm Water Maintenance Permit will be issued for any permanent structural Storm Water controls to the developer, or his assignee, upon fulfillment of the performance and warranty obligations and final acceptance of the subdivision in accordance with Appendix C, of the Parish Code of Ordinances, St. Charles Parish Subdivision Regulations of 1981, Ordinance 81-8-2, Sec.II.H.

Inspections of ponds by St. Charles Parish staff are documented on the Watershed inspection work order and, at a minimum, attempt to identify the following information:

- adequate access to structures via drainage easements and berms;
- detention ponds that require sediment removal, grassing, outlet control structure repair, and erosion control;
- accumulation of dirt, debris, or other notable damage at the discharge of outfall structures;

- stormwater collection and transfer structures that are not properly maintained.

Private owners will be required to initiate the necessary repair process to deficient stormwater structures within 30 days of receiving the inspection report, unless the Parish deems the deficiency to be an emergency or waters of the State are being adversely affected. For these situations, the Parish will issue a time limit for repairs. A re-inspection will be conducted to verify the maintenance activities were performed.

The following are the stormwater pond inspection activities carried out by St Charles Parish:

- Periodic inspection to remove sediment and vegetation from inlet, pond, and forebay
- Occasional inspection for sediment buildup.
- Inspection for sheen/contaminants in water

The following are the stormwater inspection activities for separator units and pump station bar screens:

- Inspect the separator unit /bar screen integrity
- Clean out sediment, oil and greased, and floatables, using catch basin cleaning equipment (vacuum pumps). Manual removal of pollutants may be necessary.

2.2 Planning Procedures

2.2.1. Development Review Process

Step 1 – Pre application meeting (optional) A Pre-Application meeting is scheduled by the Planner with the project owner and project professionals. Attendees include: The MS4 Coordinator, Public Works, Water Works, Waste Water, Planning Department, Building Official and any other department deemed necessary to discuss the proposal, parish requirements, permitting/approval process and fees. A site meeting may be scheduled by the Parish Engineer with other parish staff as deemed necessary to field-review the project and discuss construction requirements typically related to infrastructure improvements. The Parish will provide information regarding the Stormwater ordinance requirements.

Step 2 - Plan Submittal -- All applications for permits and land use applications requiring review under this manual for new developments and redevelopments are submitted to the Planning and Zoning Department. This submittal is made in conjunction with a permit or subdivision application and will include the SWPPP, ESC site drainage plan, and drainage impact analysis.

Step 3 – Plan Review – Civil engineering plans and/or drainage plans are forwarded to the Public Works Department (Engineering, Waste Water, and MS4) for review and approval. If revisions are needed, the Parish Engineer and/or MS4 Coordinator will either communicate those directly with the applicant or forward a set of comments to the Planning Department in the form of conditions of approval. An approval letter is signed by the Public Works Director detailing drainage and sewer approval, and the MS4 Coordinator approves submitted storm water pollution prevention plans. This approval letter is given to the applicant as part of the approval process. Drainage approval will also include a stamped an approved drainage plan.

Step 3 – Walk Through -- After the departmental comments have been addressed and the corrections to the plans are made, the developer and/or their agent returns evidence to each reviewing department that the required changes have been made. If the changes are satisfactory to the reviewing department, then said department may sign-off on the Application for Plan Approval and affix their departmental stamp to the plans.

Step 4 – Plan Approval -- The developer and/or their agent will deliver to the Planning and Zoning Department the plans approved by the other reviewing departments, with the appropriate stamps affixed, and the completed Application for Plan Approval with the signature of the respective departmental plan review personnel. The Planning and Zoning Department will verify that the reviewing departments have signed the Application for Plan Approval and stamped the plans.

After the Planning and Zoning Department has verified that all plans and supporting documents are true and correct, the Director, or his designee, will sign-off on the plans and supporting documents. The permit is then issued along with ESC Agreement

Step 5 – Pre-construction Conference -- The ESC agreement is reviewed with the contractor at a pre-construction conference with the Engineering Department and MS4 Coordinator, and all parties responsible for inspection of the development site.

Step 6 – Inspections during the construction process -- Regular inspections will be performed during construction to ensure all required and approved BMPs and ESC measures are in place and operational. Additionally, sites are inspected on a weekly basis as part of the watershed inspection patrols.

Step 7 – Certificate of Occupancy -- Upon completion of construction, the developer will request final occupancy inspections. Final inspections will be performed by the Planning Department, Building Official and Public Works (drainage and sewer). If deficiencies are identified, the respective department will notify the applicant/contractor directly and request a call for re-inspection when deficiencies are resolved. Written notice of final construction approval will be submitted to the Planning Department by each department. When all final approvals are submitted and all required paperwork is submitted, including final as built drawings and executed Post-Construction Stormwater Permit, the Planning Department will issue a Certificate of Occupancy for the structure.

2.2.2 Comprehensive Land Use Planning and Protective Ordinances

St. Charles Parish has developed a new comprehensive plan for the Parish, St. Charles 2030 Comprehensive Plan. The plan is intended to guide decision-makers in managing future growth, promoting sustainable economic development, improving quality of life, and preserving the Parish's unique character. This plan will consider strategy and tactics and define technically correct answers to technical questions that address the core "value" questions for the Parish: What aspects of our life today do we value and wish to retain and enhance? What are our aspirations for the future of our community? What are we willing to do to achieve this future?

A key part of implementation of the plan will be the development and incorporation of protective ordinances. As the provisions are finalized, the relevant updates will be incorporated into this Stormwater Management Plan. Infrastructure, Stormwater drainage, Land Use Housing and Community Character, and Natural/Cultural Resources Goals are defined as key elements in the Plan.

Infrastructure

This element addresses sewer, potable water, stormwater drainage, and flood protection systems. Among other things, the goals seek to ensure the provision of adequate infrastructure to meet the demand of existing and future Parish residents and associated development, and call for regional collaboration to ensure access to financial resources available outside the Parish, to maximize efficiencies in the delivery of infrastructure, and to strengthen the Parish's position in decision-making processes regarding projects that may impact the Parish. Key recommendations for each system component follow.

Stormwater Drainage:

- Reduce or eliminate existing deficiencies in the drainage system.
- Expedite the acquisition of drainage information for the Urban Flood Control Project. As necessary to achieve this end, increase the resources devoted to this project (e.g., increase the number of Parish employees working on the project or hire outside assistance).

- Perform a hydraulic/hydrologic drainage model on the entire parish to identify and locate drainage deficiencies in the system.
- Maintain the Master Drainage Plan and associated Capital Improvement Program, including, but not limited to projects needed to address:
    - undersized pipes and drainage structures
    - damaged drainage pipe and structures
    - inadequate conveyance in open channel and
    - subsurface drainage structures
    - undersized pumping stations
    - undersized jack and bores under train track
    - berms and roads.
- Adopt criteria for prioritizing funding of drainage-related capital improvement projects. The following criteria may be included:
    - The project should be part of the Master Drainage Plan.
    - The project should be completed in sequence and in the timeframe established by the Master Plan.
    - The project may be completed in a timely manner relative to other projects.
    - The project is consistent with the Comprehensive Plan.
    - The project eliminates obsolescence or extends the useful life of a facility.
    - The project serves a (to be determined) threshold percentage of residents.
    - The project may be completed with available funds, or can be efficiently phased to complete portions with available funds.
    - The project may obtain funding through outside sources.
    - The project protects property from flooding.
    - The project maintains or improves the reliability, effectiveness and/or integrity of the Parish's drainage infrastructure.
    - Degree to which the project complies with requirements imposed by others (e.g., federal
    - and/or state agencies).
    - Degree to which the project require coordination with other projects.
    - Degree to which the project improves the protection of an existing facility, especially those at risk (e.g., from natural disaster)
- Develop strict enforcement protocols to ensure that existing development adheres to established drainage standards and regulations. As necessary, create new or strengthen the existing ordinance to allow department officials to enforce existing and future standards. (Ref. St. Charles Parish Code of Ordinances, Appendix C, Part IV, Section D for existing ordinance).
- Require developers to perform both surface and subsurface impact studies from point of origin to final outfall beyond limits of proposed development before construction can begin. The drainage impact study should focus on two areas:
    - It should determine proper surface and subsurface drainage structure sizes to ensure that bottlenecks are not created.
    - Downstream impacts of new development should be determined and accounted for to prevent impacts to neighboring developments.
- Establish new guidelines for converting open drainage to subsurface. Residents should perform a front foot assessment before placement of subsurface drainage on individual properties. When feasible, a holistic approach should be taken to converting open drainage to subsurface drainage in existing subdivisions.
- Continue to actively seek out sources of outside funding for drainage projects to ensure that all drainage projects are constructed in a timely manner.
- Provide needed drainage facilities in a manner that protects investments in existing facilities and promotes orderly growth.

- Meet the standards set by the latest LA DOTD Hydraulics Manual. Adopt a Level of Service (LOS) standard based on the 100-year storm event for pumping stations and 20-year storm event for streets and roads, and use this storm design as the governing criteria for all future drainage repair or improvement projects.
- Periodically review and modernize design standards for drainage structures and outlets to reflect state-of-the-art, "low impact" and "green" best management practices. For example, require that new development retain a larger percentage of natural drainage features to avoid expensive structural solutions.
- Consider enacting a "No Net Increase" drainage ordinance to address runoff created by new development
- Study the feasibility of a drainage system impact fee structure so that new developments pay not only for their direct impact but also for the incremental system-wide impact.
- Ensure that all new development design its drainage system to prevent downstream impacts.
- Encourage regional stormwater and other creative stormwater drainage solutions. Incorporate concepts and strategies laid out in the Coastal Best Practices manual to manage water in a more holistic, natural manner, reducing the need for increased stormwater drainage infrastructure.

Flood Protection:

- Lobby the USACOE to expedite the construction of planned levee projects in St. Charles Parish.
- Evaluate and develop the interim protection plan for the Sunset Drainage Area, Willowridge, Ellington, and Magnolia Ridge subdivision.
- Continue to seek funding for coastal protection and coastal/habitat restoration projects.
- Promote the use of non-structural flood-protection tools, such as those described in CPRA's Coastal Best Practices for Development Manual and other approved architectural and building solutions.

NATURAL AND CULTURAL RESOURCES GOALS

- Minimize the loss of and avoid adverse impacts on the Parish's natural, historic and cultural resources.
- Protect the Parish's natural resources from scattered development and fragmentation.
- Promote natural resources and outdoor recreation opportunities in a sensitive and responsible manner for economic development.
- Support private management of the Parish's natural and cultural resources for long-term sustainability.
- Promote development forms and methods that protect, conserve, and respect the character of the Parish's natural, historic and cultural resources.
- Protect the Parish's water resources.
    - Enact vegetated buffer and setback requirements to protect wetlands and other surface waters.
    - Require/encourage stormwater management practices that minimize impacts on surface water, groundwater, and other natural resources, e.g.:
        - Filtering and discharge designs for stormwater management facilities that blend into the existing landscape.
        - Use of pervious surfacing to reduce runoff.

2.3 Street Maintenance

Stormwater pollutants from roadways such as litter and sediment can be washed into the MS4 and receiving waters, which can negatively affect water quality and the functioning of the MS4. Drainage-related maintenance activities are the responsibility of the Department of Public Works. As complaints about roadway debris are received they are addressed and tracked by DPW work orders and when implemented, Assetworks.

2.3.1 Catch Basin/Inlet Cleaning

St. Charles Parish is responsible for the maintenance and operation of stormwater facilities in the public ROWs. This includes catch basin and inlet cleaning, as well as other maintenance and repair of the stormwater conveyance system. Visual inspection of these facilities is an ongoing responsibility of DPW staff as they perform their daily tasks. If cleaning or maintenance needs are noted or reported by staff or a citizen, the DPW receives

notice to perform the necessary maintenance. In addition, during other street maintenance activities, the area of disturbance is minimized, work is conducted during dry weather, and debris is removed following major activities. Work orders records are kept by DPW and numbers are reported in the MS4 annual report as a measureable goal.

2.3.2 Litter Removal Activities

St. Charles Parish prohibits littering through the enforcement of existing ordinances. St. Charles Parish responds to work order requests for trash and litter removal along street ROWs continually throughout the year.

In the Spring, St. Charles Parish organizes Trash Bash day with volunteers from around the community including students and representatives from local industry to pick up roadside debris and inform the community that roadside pollution directly contributes to the contamination of local receiving waters. Dumping and trash clean-up work order performed by the Parish are presented in the MS4 annual report as a measureable goal. For more information see http://www.stcharlesparish-la.gov/government/special-government-events/trash-bash/previous-trash-bash-events

2.3.3 Tracking

Through the DPW the Parish will track activities regarding maintenance of catch basins, inlets, or other stormwater structures. DPW will continue tracking information and keep an updated database of litter cleanup activities and the amount of litter removed each year and provides this information to the Parish. This information will be provided by the Parish in the annual report along with any maintenance activities conducted on stormwater structures. In the future this capability will be facilitated by Assetworks.

2.4 Municipal Waste Facilities

St. Charles Parish is responsible for inspecting municipal waste facilities that may have potential to cause pollution due to the high volume of waste material at certain facilities. The Parish does not currently have municipal waste facilities that are not subject to the Industrial General Permit (IGP).

For municipal waste disposal, St. Charles Parish currently utilizes River Birch Landfill in Jefferson Parish.

2.5 Municipal Facilities with the Potential to Cause Pollution

St. Charles Parish maintains an SPCC (Spill Prevention Controls and Countermeasures) inventory of municipal facilities that have the potential to cause pollution. Appendix C lists all municipal facilities inventoried for SPCC to date, including 2 fleet maintenance and fueling facilities, East Bank WaterWorks, West Bank WaterWorks, East Bank and West Bank Wastewater Department, Courthouse, Community Center, and 48 drainage pump stations. The facility inventory may be further updated as future facilities become operational or are decommissioned. St. Charles Parish is responsible for inspecting stormwater structures that are located on both public and private property. All municipal facilities containing more than 1320 gallons of fuel are inspected yearly. The facility inventory is updated as necessary on an annual basis. Parish inspections are tracked as a work order by the DPW, or by Assetworks. Emergency situations are addressed immediately. During each inspection, conditions are documented on an inspection form (included in the SPCC plan). The inspections will be performed in accordance with 40 CFR Part 112 in compliance with SPCC plans. St. Charles Parish is currently refactoring SPCC coverage for new additions as well as simplification of the existing SPCC document. This refactoring is 24% complete and began July 2018.

2.6 Pesticide, Fertilizer, Herbicide Application

If a commercial applicator is contracted, they are required to have a valid applicator license issued by the Department of Agriculture. A commercial applicator license is required for anyone that is working on another's property. To obtain a license, an examination must be passed based on proper application manuals. Commercial applicators must earn a required number of recertification credits every 5 years or be reexamined. The Department of Agriculture sends a list of educational meetings to earn recertification points each year.

The Parish prefers to avoid widespread use of chemicals: however, as additional training is needed, it will be provided on a case by case basis. This could include any of the following:

- Conducting applicator training or certification training
- Conducting employee safety training in use, storage and disposal of chemicals
- Implementing program for municipal use of native or low-maintenance vegetation.

The status of any of these activities will be reported as part of the Annual Report process.

St. Charles Parish minimizes the use of pesticides, herbicides, and fertilizers as much as possible. In support of this approach, the Parish uses native and low-maintenance vegetation as much as possible. These chemicals are not stored onsite and are purchased only in quantities that will be used immediately, or a qualified third-party contractor is hired to conduct necessary applications. Should it be necessary to store chemicals, an updated inventory of chemicals will be maintained by municipal staff and included in MS4 annual reports.

2.7 Municipal Employee Training

The Parish provides training to employees regarding pollution prevention at municipal facilities. This training includes spill response, proper disposal of waste, proper vehicle washing, and covers the procedures and protocols necessary to prevent and minimize the exposure of pollutants to stormwater. The Parish trains municipal staff in good housekeeping techniques in order to minimize the potential for stormwater pollution at each facility. Parish employees including inspection staff will be certified in Erosion and Sedimentation training. Employees are trained on an annual basis or as new employees are hired and all types of training are documented and kept as a database.

Parish employees interacting with fuel on a regular basis are trained in spill prevention annually and MS4 Personnel have been trained as Storm Water Inspectors as well has OSHA HazMat Operations Level II.

3.0 Illicit Discharge Detection and Elimination Program

For the purposes of stormwater management, federal regulations define an illicit discharge as "any discharge to an MS4 that is not composed entirely of stormwater" (40 CFR 122.26(b) (2)), with exceptions for certain LPDES-permitted industrial sources and discharges from fire fighting. Since MS4s are not designed to treat non-stormwater wastes, illicit discharges result in the release of pollutants directly into streams. Illicit discharges can enter a stormwater system through accidental spills, surface disposal of wastes, dumping of wastes into stormwater catch basins, or conscious (but illegal) connection of waste lines to the stormwater system. With the exception of unpreventable accidental spills, most illicit discharges can and should be addressed through the Illicit Discharge Detection and Elimination Program (IDDEP).

3.1 Illicit Discharge and Illegal Connection Ordinances

St. Charles Parish has incorporated Illicit Discharge and Detection and Elimination requirements into the parish Stormwater Ordinance. The Ordinance was designed to meet the following goals:

- Regulate the contribution of pollutants to the MS4 by any person.
- Prohibit illicit discharges and illegal connections to the MS4.
- Prevent non-stormwater discharges, generated as a result of spills, inappropriate dumping or disposal, to the MS4.
- Establish legal authority to carry out all inspection, surveillance, monitoring and enforcement procedures necessary to ensure compliance with this article.

The Parish's enforcement actions for violations are discussed in the Illicit Discharges section below.

3.2 Illicit Discharge Detection Plan

The IDDE Section of the Stormwater Ordinance has the following objectives:

- Control illicit discharges by conducting field inspections of the MS4, and identify and eliminating the sources of non-stormwater discharges.
- Detect and eliminate illicit discharges and illegal connections to the MS4 through a program that combines education, alternative disposal options, and enforcement.
- Effectively coordinate spill response and cleanup with other existing programs.
- Optimize illicit discharge control activities through planning and prioritization.
- Partner with other agencies and groups to increase public awareness of ways to effectively and efficiently prevent pollutant discharges to the storm drains.
- Refer to Sewer Overflow Response Plan (SORP) Appendix D for Sanitary Sewer Overflow (SSO) procedures

3.3 Outfall Inventory Updates

As discussed in Section 2.1.1, St. Charles Parish maintains an inventory of all stormwater structural controls and conveyance features in MS4 regulated areas of St. Charles Parish (Figure 2-1). The inventory will continue to be updated to reflect the changes in the system and is intended to provide a platform to evaluate system growth and improvement projects.

The Parish has developed an outfall map showing outfalls from all pumping stations and data regarding the petroleum storage capacities of the stations feeding those outfalls. This data includes capacities, physical addresses, tank type, containment type, and unique tank identifiers. This outfall map can be easily shared between individuals and viewed with Google Earth.

3.4 Outfall Inspections

The St. Charles Parish Department of Public Works visually inspects all outfalls a minimum of three times per month. Parish employees have been trained to identify sheens and signs of water distress; they continually inspect Parish waterways during the course of the routine pump station maintenance and notify senior personnel of potential water quality issues and/or illicit discharges. St. Charles Parish will prioritize screenings and inspections in watersheds with 303(d)-listed stream segments to demonstrate compliance with TMDL implementation, and in response to reported releases. St. Charles Parish has developed an implementation schedule of watershed inspections outlined in Appendix B.

3.5 Field Screening of Outfalls

The MS4 Coordinator has developed an Enforcement Response Plan and plans to implement the following protocol for dry weather field screening as required if signs of water distress are noted in any parish drainage conveyance. Illicit discharges by sewage systems are also reported by the Waste Water section of Public Works.

Outfall screening is conducted during dry weather, which is defined as at least 72 hours with less than 0.1 inch of rainfall. If dry-weather discharge is present, the discharge is classified as either “live stream” or “illicit,” and the discharge is tested using a field probe for pH and specific conductance, and test kits for surfactants (detergents) and fluoride. When a dry-weather flow is recorded as a live stream, there must be documented evidence of a direct connection to an upstream water body (in many cases, flowing streams are documented to occur at outfall structures that are no longer operational and do not control stormwater). As feasible, staff will follow the flow upstream to locate any MS4 structures and to identify if any dry weather flow is coming from a stormwater structure. Samples may be collected for subsequent laboratory testing for fecal coliform within 6 hours of sample collection according to standard EPA methods. Fecal coliform will be collected only where there is evidence of sewage spills or water quality concerns, as described below:

- Visible sewage or sewage odor
- Physical indicator of a potential illicit discharge (color, odor, turbidity, or floatables)
- pH lower than 6.5 or higher than 7.5 standard units
- Specific conductance greater than 300 µmhos/cm
- Presence of fluoride
- Presence of surfactants

Water quality concerns can indicate pollutants from a number of illicit discharge sources such as sanitary sewer, septic tanks, sulfides and organics from industries, petroleum products from vehicle maintenance areas, food waste from residents or restaurants, sediment from construction, washwater, among others. The following is a list of observations that will be considered while conducting a field screening to indicate water quality concerns:

- **Floatables:** Floatables such as oil sheens, sewage, and sanitary trash found in the storm drainage system will be considered evidence of a problem. If sewage and/or sanitary trash are observed, it is an indicator that a sanitary system is connected to the stormwater system; however, some floatables may occur naturally such as algae, bryozoans, pollen, and oil-like sheens may be caused by bacteria.
- **Odor:** Strong chemical or sewage odors may indicate a potential illicit connection or discharge. If odors are detected, it is recommended to look for other indicators including floatables, dry weather flow, water color, and/or stains inside the manhole or pipes.
- **Foam:** The accumulations of foam in a storm drainage system may indicate an illicit connection or discharge. Foam can be a natural occurrence in streams and lakes, but if the foam is concentrated around a storm outfall, or appears to be originating from a structure, it may be an indication of an illicit connection or discharge in that system.
- **Other Indicators:** Other indicators, which may not be significant by themselves, include color, turbidity, the existence of stains or deposits, and the occurrence of excessive vegetation at the discharge point. If dry weather flow is not observed, other indicators will be explored to provide evidence of illicit connections or

discharges. If the initial field screening indicates that no flow is present yet there is evidence of toilet paper, staining, grease deposits, or excessive plant growth, it is assumed that an illicit discharge has occurred. Further investigation of the drainage system will be conducted to identify the source. If there is no indication of an illicit connection or discharge, then the appropriate results will be recorded into a database.

If any one of the water quality concerns listed above are present during a field inspection, an investigation is immediately initiated to identify any illicit discharges according to procedures in above. If readings indicate a potential water quality issue in the field, an investigation is initiated by the field crew. The source of the pollutant is tracked by walking the storm drainage system. Results of dry weather screening and any follow-up activities are documented on the outfall screening. Procedures to address accidental and illicit discharges are detailed in the Enforcement Response Plan.

3.6 Source Tracing

Dry weather discharges will be sought during outfall screenings, industrial inspections, site inspections, SWPPP audits, and yard walks. This section describes the procedures used when a discharge is identified by either St. Charles Parish staff or citizens. Dry weather flow inspections will be used to identify systems with potential illicit connections and discharges. If a field screening or laboratory result indicates an illicit discharge has occurred, the source of the discharge will be immediately investigated. The routine process includes:

- Walking the segment of stream contrary to the direction of the flow.
- Looking for illicit connections and record any observations.

Flow may be evident in the storm drainage system, even though no storm events have occurred in the past 72 hours. The presence of flow may suggest that there is an illicit connection or discharge and further investigation upstream will be necessary. Observation of the outlet structures is a critical component of the inspections. If the investigations results find a potential illicit discharge within the drainage system, follow-up investigations will be required.

Tracking a potential illicit discharge through a sanitary sewer system is limited to the access points of the sanitary sewer system. Key points or confluences within the drainage area will be targeted and investigated.

Investigations should continue until the problem is isolated between one or two stretches of pipe. Once the source has been isolated down to a specific reach, the work will become source confirmation. The source will be determined by walking the line up to the source and using the best professional judgment. The building owners and/or tenants must be contacted to acquire available building plans and to set up an appointment to conduct the site visit. This notification and other permits should be coordinated through the appropriate authorities. Additional notification to the local Health, Fire, and Police Departments may be required.

3.7 Source Elimination

The Stormwater Ordinance also provides guidance on the procedures individuals should follow if there is an accidental discharge or an unavoidable loss to the MS4 of any designated hazardous waste material or any substance other than unpolluted stormwater. However, when an illicit discharge is reported during an outfall screening, the field staff immediately traces the source to determine the origin of the effluent.

Accidental Discharges

If an accidental dry weather discharge has occurred, the following actions will occur:

- Notify the appropriate authorities (see section 5.4). Depending on the severity of the discharge, the first action is to notify the emergency services. Hazardous or toxic spills or discharges will be reported to the fire department or the emergency response system through the 911 system immediately after the accident is discovered. For discharges that are unlikely to be hazardous or toxic, the DPW will be notified immediately.

- Stop the Discharge. The person concerned will take immediate steps to stop the discharge and contain, treat, or take other actions to minimize effects of the discharge on the Parish separate storm drainage system and receiving streams. The person will also take immediate steps to prevent recurrence of the discharge.
- Identify and document the nature of the accidental discharge. In non-emergency cases, DPW staff will perform a field visit within five business days of notification to verify and document the discharge via the Parish's standard warning notice to comply. Notification will include the nature, quantity, and time of occurrence of the discharge.
- Prepare Response Report. A written report describing the occurrence, its impact on water quality, and the clean up response will be prepared by the person concerned and submitted within 15 days of the occurrence to the Department.

Illicit Discharges

Since MS4s are not designed to treat non-stormwater wastes, illicit discharges result in the release of pollutants directly into streams. Illicit discharges can enter a stormwater system through accidental spills, surface disposal of wastes, dumping of wastes into stormwater catch basins, or conscious (but illegal) connection of waste lines to the stormwater system. With the exception of unpreventable accidental spills, most illicit discharges can and should be addressed through the Illicit Discharge Detection and Elimination Program (IDDEP). The procedure necessary to address an illicit discharge varies, depending on the severity and nature of the event, and can be found in detail in the Enforcement Response Plan of this SWMP. The procedure consists of a series of steps:

- Notify the appropriate authorities (see section 5.4). Depending on the severity of the discharge, the first action is to notify the emergency services. Hazardous or toxic spills or discharges will be reported to the fire department or the emergency response system. For discharges that are unlikely to be hazardous or toxic, the MS4 Coordinator will be notified immediately.
- Identify and document the nature of the illicit discharge. In non-emergency cases, staff will immediately perform a field visit to verify and document the discharge via the Parish's standard warning notice to comply.
- Dependent on violation severity, The Parish immediately notifies the property owner verbally or via doorhanger. The Engineering Department provides written notification to the property owner of the discharge, the corrective action necessary, and an appropriate timeframe for eliminating the discharge. Fines of up to $500 per day may be imposed under the Parish Ordinance. Follow-up inspections are necessary to ensure that the property owner took the appropriate action to eliminate the discharge.
- The Parish re-inspects the site on the date the discharge was to cease to ensure that the elimination has occurred.
- Enforcement and legal actions. If an illicit discharge is not corrected, legal action may be initiated in St. Charles Parish Court. Fines of up to $500 per day may be imposed under Chapter 25 of the Parish Code, which addresses non-stormwater discharges to the drainage system.

3.8 Public Reporting of Illicit Discharges

Illicit discharges and other environmental threats to surface waters can be reported to the Emergency Operations Center (EOC), or the MS4 Coordinator by e-mail, or via the Parish Environmental Reporting Utility located on the main website. The public report is logged and the procedures outlined in the previous section are followed. In non-emergency situations, staff investigates the report immediately using the procedures described in the previous section and can cite violations under Parish Code, Chapter 25. Fines or legal actions are pursued for failure to eliminate the illicit discharge.

St. Charles Parish increases public awareness of these illicit discharge reporting resources by also performing the following activities:

- Highlight phone number and e-mail contact information on http://www.stcharlesparish-la.gov/departments/public-works-and-wastewater

- Distribute "Don't Dump That Oil" pamphlet at public locations and motor oil collection points.
- Work with the Public Information Office to create storm water informational segments on Channel 6.

3.9 Spill Incidents Reporting

The St. Charles Parish Emergency Operations Center (EOC) has developed an incident tracking procedure. The first priority in spill response is public safety, followed by environmental protection. Parish Staff from the Water and Sewer Department and Public Works Department participate in containing and mitigating any spills of pollutants. The EOC Director is responsible for coordinating the activities of the various departments and divisions to ensure a timely and effective response to spills and other incidents. When spills meet the threshold quantities, they are immediately reported in accordance with SPCC plans and State requirements. Specifically, for sewer spills, the Wastewater Department has been implementing procedures through their maintenance staff to respond to spills (see SORP in Appendix D).

3.10 Management and Disposal of Used Oil and Toxic Materials

The pollution prevention practices related to discharge prevention in residential neighborhoods include storm drain marking, septic system maintenance, vehicle fluid changing, car washing, and household hazardous waste disposal. The St. Charles Parish DPW staff is working to increase public awareness of proper toxic material disposal by distribution of brochures at public buildings and Planning & Zoning pre-application meetings.

DPW will develop a prioritized schedule for inspecting industrial facilities to check for proper handling of waste oil and other toxics and to educate owners and operators on the proper disposal requirements. Flyer distribution and other public education activities are conducted and field checks of potential pollution sources are completed by DPW staff. Nonresidential waste must be disposed using commercial vendors.

Annual Household Hazardous Materials Collection Day is held in Destrehan. This event has been held annually since 1998. The purpose is to provide area households an opportunity to properly dispose of or recycle materials that are inappropriate for curbside pickup.

Materials such as solvents, poisons, used oil, electronics and corrosives require special handling to minimize environmental impact.

http://www.stcharlesparish-la.gov/services/residential-garbage-collection/garbage-and-recycling-faqs

www.hhmcd.com

3.11 Activities Related to the Municipal Sanitary Sewer System

St. Charles Parish has developed a Capacity Management, Operations, and Maintenance (CMOM) Program, consistent with U.S. Environmental Protection Agency guidelines, intended to reduce the number of sanitary sewer overflows, and also inflow and infiltration. The Parish follows a schedule to maintain all infrastructure, including air release valves, wet wells, and pump stations. The Wastewater Department has developed and implemented a Sewer Overflow Response Plan (SORP) see Appendix D.

4.0 Industrial Facility Stormwater Runoff Control

St. Charles Parish updates an industrial facility inventory, conducts industrial inspections, and, in some cases, monitors runoff from industrial facilities. The program is intended to prevent impacts to stormwater from industrial activity and to prevent any illicit discharges to municipal stormwater infrastructure. The components of the program are detailed below.

4.1 Industrial/Commercial Facility Inventory

As part of the development of the Industrial Facility Stormwater Runoff Control Program, St. Charles Parish is developing a database of industrial facilities in its service area and municipal facilities that are subject to the Industrial General Permit. The inventory will include each facility location and AI (Agency Interest) number for tracking in LDEQ's EDMS (Electronic Data Management System). Until this database is completed, The Parish utilizes the major/minor wastewater account list for Inventory purposes.

4.1.1 Site Plan Review Process for New Facilities

New facilities are required to comply with the Parish development codes, including water quality protection, and flood mitigation. During the site plan development process discussed in Section 2.2.1, Parish staff (Department of Public Works) verifies that the design meets the Parish requirements and will not create flood hazards or degrade water quality. If a new development is deemed to be a "hot spot" land use, such as a service station, convenience store, or other development with commercial fueling facilities, the MS4 Coordinator will require the use of an oil/ grit separator for water quality.

4.2 Commercial Facility Inspection Program

The St. Charles Parish Department of Public Works and the Environmental Manager will prioritize a list of commercial facilities to be inspected, and conduct inspections at industrial facilities to ensure compliance with industrial stormwater permits using an industrial facility inspection form (to be developed). The Parish will prioritize and conduct stormwater inspections based on severity, previous problems, and service requests for industrial facilities that the Parish has determined are contributing pollutant loading to the MS4. The Parish Environmental Manager will implement the following protocol for industrial facility inspections.

As part of each industrial facility inspection, Parish staff inspects the stormwater collection system for potential pollutant sources and illicit discharges. The industrial facility inspection includes identification of the following potential pollutant sources/indications:

- Industrial machinery in uncovered areas
- Improper SWPPP implementation or documentation
- Industrial activity residuals exposed to rainfall
- Spill or leak residuals on the ground
- Materials contained in deteriorated or leaking storage drums
- Detention ponds on property
- Uncontained wash areas
- Recent spills
- Distressed vegetation
- Stained asphalt or concrete
- Material handling/process equipment exposed to rainfall, stored on roads, or stored outdoors

The industrial facility inspection includes screenings for dry weather flows at all outfalls. Details regarding any observations are noted on the industrial facility inspection form and the discharge is tested for pH, specific conductance, surfactants, and fluoride. Pollutant sources are documented on the inspection form, and the facility manager is notified of corrective actions. Samples may be collected for subsequent laboratory testing for fecal coliform within 6 hours of sample collection according to standard EPA methods. Fecal coliform will be collected only where there is evidence of sewage spills or water quality concerns, as described below:

- Visible sewage or sewage odor
- Physical indicator of a potential illicit discharge (color, odor, turbidity, or floatables)
- pH lower than 6.5 or higher than 7.5
- Specific conductance greater than 300 µmho/cm
- Presence of fluoride
- Presence of surfactants

4.2.1 Industrial Facility Stormwater Runoff Monitoring

Industrial facilities are required to conduct stormwater runoff monitoring as part of industrial stormwater permit requirements. Data is submitted by the facility to LDEQ. If the Parish staff suspects that an industrial facility may be contributing to downstream water quality problems caused by pollutants in stormwater runoff, facility inspections may include a request for monitoring data (this information can also be requested from LDEQ). Should monitoring data be insufficient to document stormwater pollution, the Parish may elect to conduct stormwater discharge monitoring at outfalls from the industrial site entering the MS4. Parameters to be measured during monitoring will vary depending on the nature of the water quality issue.

Most industrial facilities must conduct at least visual monitoring of stormwater at outfalls during quarterly wet-weather events. Additional monitoring will be required if the facility discharges stormwater to a 303(d)-listed stream, or is within 1 linear mile upstream of a listed stream segment for stormwater impairment. Benchmark values are provided in the general permit to determine if data suggest stormwater quality problems.

4.3 Enforcement Procedures

Industrial discharges violations will be enforced under the St. Charles Code of Ordinances Chapter 25 - Stormwater Management and Erosion and Sediment Control. When an industrial facility does not comply with their industrial permit requirements, the property owner will receive a copy of the inspection form along with recommended corrective actions. If a violation is not corrected within 30 days or a greater period, which was deemed appropriate at the time the Notice of Violation was issued, the appropriate jurisdiction may impose a fine (depending on the severity of the violation) for each day the violation remains unsolved after receipt of the Notice of Violation. The Parish may assess citations and fines up to $500 per day and if deemed necessary, may pursue legal action in cases of continued noncompliance. St. Charles Parish staff will schedule a follow-up visit to ensure that corrective actions are taken. A log of inspections, corrective actions and non-compliances is maintained and is included in the annual reports to LDEQ. Additional details of enforcement procedures are found in the Chapter 25 Stormwater Ordinance (#14-1-12) in Appendix A.

4.4 Municipal Employee Training

St. Charles Parish recognizes that pollution control and prevention will not be effective unless all employees are properly trained. Each of St. Charles Parish's facilities (offices, water treatment and wastewater reclamation facilities) has implemented procedures to ensure good housekeeping practices and pollution prevention control. Employees will be expected to identify potential problems as they become more aware of the need to protect water quality and how their actions can affect it. In addition, employees will learn to identify illicit discharges as part of their training and help to prevent pollution from facilities.

St. Charles Parish will implement the following activities related to Parish facilities:

- Refine and maintain current list of Parish facilities, regulatory requirements, and responsible departments or divisions.
- Request SWP3s for municipal facilities that are covered by the general industrial stormwater permit.
- Continue training St. Charles Parish employees on handling and use of potential pollutants (SPCC training).
- Continue inspection and maintenance of municipal and industrial facilities.

The inventoried facilities, the inspection forms, and the educational sessions carried out by St. Charles Parish will be reported to LDEQ as part of the annual report.

5.0 Construction Site Management Program

5.1 Legal Authority

St. Charles Parish will be responsible for reviewing and inspecting land disturbing activities within the Parish to ensure environmental protection. The Parish will acts as the local permit issuing authority and, as such, the following construction site management activities will be maintained as part of the Parish's stormwater program:

- Administer a local ordinance
- Provide adequate program administration, record-keeping, and enforcement documentation.
- Provide a complaint investigation process.

St. Charles Parish will implement a consistent program for construction site management, which includes the Stormwater Ordinance, efforts to provide adequate site plan review, inspections, and enforcement to meet the intent of the MS4 permit.

5.2 Site Plan Review Procedures

The Planning and Zoning Department and Department of Public Works review new and re-developments and work with local developers to verify that the Parish's requirements for site design and stormwater management are met as new development occurs. Section 2.2 of this document, provides a detailed description of the site plan review process in the Parish. This information is available on the Parish website. Section 2 provides further details about BMP requirements and review procedures that are completed by the Department of Public Works, Parish Engineer, during site plan reviews.

All plans and supporting documents are submitted to the Planning and Zoning Department to obtain an Erosion and Sediment Control (ESC) Agreement, then submitted to DPW for review and approval. These departments are listed below.

- *Department of Public Works* - The mission of the DPW is to provide safe, efficient design, construction, maintenance, and operation of the Parish's surface transportation for the public. The department also maintains all existing drainage infrastructure, roads, bridges, and surface vegetation within the ROWs, reconstructs existing roads and builds other road and drainage projects, conducts stormwater management, coordinates contracted work, and installs and maintains traffic control, striping, signs, and signals.
- *Planning and Zoning Department* - The function of the Planning and Zoning Department is to promote and enhance the quality of life of the residents, property owners, and businesses of St. Charles Parish. The department accomplishes its mission through programs and services that encourage quality development. The department consists of five divisions: Planning, Permitting, Building Inspections, floodplain management and coastal zone management.

5.2.1 ESC Site Plan and Agreement Submittal, Review, and Approval Process

A. When an ESC site plan for the purpose of obtaining a Parish ESC Agreement is required, it will be submitted to the Department of Public Works for review by the MS4 Coordinator and Parish Engineers.
B. Within 30 days after receiving an application, the Department of Public Works will, in writing:

- Approve the ESC site plan and issue the ESC Agreement; or
- Approve the ESC site plan and issue the ESC Agreement subject to such reasonable conditions as may be necessary to secure substantially the objectives of this regulation; or
- Disapprove the application, indicating the reason(s) and procedure for submitting a revised application and/or submission; or

- Pending preparation and approval of a revised plan, development activities will be allowed to proceed in accordance with conditions in the ESC Agreement.

C. Failure of the Department of Public Works to respond on an original or revised application within 30 days of receipt may authorize the applicant to proceed in accordance with the plans as filed unless such time is extended by agreement between the applicant and Department of Public Works.
D. ESC site plans will be submitted prior to the commencement of construction. The issuance of all applicable parish permits will be based upon approval of a submitted site plan and a valid ESC Agreement. The ESC Site Plan will be available for a period of three years from the date of submittal.
E. The Parish ESC Agreement will be a single use agreement valid only for the duration of the permit it was purchased to accompany.

5.3 Inspection Program

The Parish will train erosion and sediment control inspectors for the Department who are responsible for completing field reports for all site inspections. Currently, both the MS4 Coordinator and MS4 General Inspector are certified as Storm Water Inspectors by the National Stormwater Center. The Parish uses a spreadsheet to monitor and track site violations and inspections. Using this spreadsheet, repeat offenders are tracked to assure that repeated violators are educated and monitored appropriately. An order of precedence will be established whereby the most urgent cases are handled first. Therefore, complaints filed with the Department receive priority. Commercial and industrial developments or any other site for which an Erosion Sediment Control (ESC) Agreement was issued will be inspected periodically. Residential and single-family sites for which an ESC was issued will also be inspected periodically via weekly compliance patrols.

Inspections

1. Installation, inspection, and maintenance of erosion and sediment control measures, and other BMPs, will be consistent with the effective operating condition of the erosion and sediments controls and BMPs. Operators of construction sites will be responsible for the installation and maintenance of all Storm Water management measures until final stabilization of the site is accomplished and are not responsible for maintenance after Storm Water discharges associated with construction activity have terminated.
2. The operator of construction sites will provide site inspections of disturbed areas, storage areas for construction materials, structural control measures, and construction exit pads. All erosion and sediment control measures, and other BMPs, will be inspected to ensure that they operate correctly and are effective in preventing significant impacts to roadways, waterways, and drainage conveyances. Upon completion of weekly site inspections, the erosion and sediment controls and BMPs will be maintained, repaired, replaced, or corrected prior to the next anticipated storm event, or as necessary, to maintain continued effectiveness of any storm water controls.
3. If applicable, the SWPPP, (sedimentation and erosion control plan), including Storm Water Inspection will be available on site for inspections. The SWPPP is a dynamic document and will be updated with BMP revisions and inspection reports. Any BMP modifications will be recorded in the SWPPP and/or sedimentation plan and implemented on site within (7) calendar days.
4. The Parish may withhold issuance of any building permit, grading permit, land clearing permit, pond permit, excavation permit, work order, or inspection approval on the grounds that the BMPs installed and/or described in the plans are inadequate to control or effectively reduce the discharge of sediment, silt, clay, mud, and any other material associated with clearing, grading, filling, excavation, and other construction activities to the maximum extent practical.

5. Any owner, contractor, and/or operator of a construction site will be jointly and severally responsible for compliance with the requirements of Chapter 25 of the Code of Ordinances.
6. The Parish may withhold occupancy certificates related to a site until the Parish has determined, following a final Storm Water inspection, that final stabilization of the site has, in fact, occurred and that any required permanent structural controls are in place.

5.4 Enforcement Procedures

5.4.1 Owner / Operator Reporting of Prohibited Discharges

The operator and/or the owner of any commercial or industrial activity must report any prohibited discharges, spills, releases, illicit connections into the MS4 drainage infrastructure, conveyances, or waterways in the Parish and any other violation of this Chapter for which they are responsible. Reports must be made to the Parish in accordance with Parish policy. The reporting of a spill or release to the Parish will not release the owner or operator from reporting to appropriate state, federal, and local officials.

A. A hazardous and/or toxic material spill or release will be reported to the MS4 Coordinator, the St. Charles Parish Fire Department, and LDEQ.

B. Other instances where pollutants have been discharged into the MS4 drainage infrastructure, conveyances, or waterways of the Parish by spill, release, illicit connections or other means will be reported to LDEQ and the Parish.

C. The operator and/or the owner of any commercial or industrial activity which has resulted in a spill or release of hazardous and/or toxic materials or a substance of a polluting nature will be responsible for proper notification of the incident to all appropriate local, state, and federal agencies.

5.4.2 Citizen Reporting of Water Quality and/or Storm Water Complaints

A. All citizens will be encouraged to report any spills, releases, illicit connections, or other instances of anyone discharging pollutants into the MS4 drainage infrastructure, conveyances or waterways of the Parish and any other violation of this Chapter to the MS4 Coordinator or any person designated by the Parish to receive such citizen reports.
B. Citizen Storm Water complaints may be made verbally or in writing. A written record of each citizen report to the Parish will be prepared and kept on file for a period of three years. Upon request, the Parish will inform the reporting citizen of any action taken in response to the citizen's report.
C. When applicable, SCP will report citizen complaints to the appropriate state, or federal agencies.

5.4.3 Enforcement of ESC Violations

A. The Parish may withhold issuance of any building permit, grading permit, land clearing permit, pond permit, excavation permit, work order, inspection approval, or occupancy certificate on the grounds that the BMPs installed and/or described in the plans are inadequate to control or effectively reduce the discharge of sediment, silt, clay, mud, and any other material associated with clearing, grading, filling, excavation, and other construction activities to the maximum extent practical.
B. Stop-Work Order; Revocation of ESC Agreement - In the event that any person holding a site development permit pursuant to this ordinance violates the terms of the permit or implements site development in such a manner as to adversely affect the health, welfare, or safety of persons residing or working in the neighborhood or development site so as to be detrimental to the public welfare or injurious to property or improvements in the neighborhood, Planning and Zoning Department may suspend or revoke the site development permit.

C. Violation and Penalties - No person will construct, enlarge, alter, repair, or maintain any grading, excavation, or fill, or cause the same to be done, contrary to or in violation of any terms of this ordinance. Any person violating any of the provisions of this ordinance will be deemed guilty of a misdemeanor and each day during which any violation of any of the provisions of this ordinance is committed, continued, or permitted, will constitute a separate offense. Upon conviction of any such violation, such person, partnership, or corporation will be punished by a fine of not more than $500.00 for each offense. In addition to any other penalty authorized by this section, any person, partnership, or corporation convicted of violating any of the provisions of this ordinance will be required to bear the expense of such restoration.

5.4.4 Enforcement of Storm Water Violations

Whenever it appears that a person has violated, or continues to violate, any permit or provision of this Ordinance, enforcement proceedings may proceed in accordance with the St. Charles Code of Ordinances. Enforcement action may include, but is not limited to issuance of a citation, cease and desist order, or summons to appear in court.

A. Violations under this Chapter may be resolved by voluntary compliance with the Ordinance and by meeting any additional requirements deemed necessary to prevent a recurrence.

B. Continued noncompliance on the site will result in escalated enforcement that may include fines, penalties, or other judicial remedies.

5.4.5 Remedies Nonexclusive

The remedies provided for in this Chapter are not exclusive of any other remedies that the Parish may have under state, federal, or local law. The Parish may take any, all, or any combination of these actions against a violator. The Parish is empowered to take more than one enforcement action against any violator. These actions may be taken concurrently.

5.4.6 Educational/Training Activities

The Parish will implement construction site inspection training for future DPW construction site inspectors. Fifteen Parish employees are to be trained in the coming year for construction site stormwater runoff control. Until the Parish MS4 subsection is expanded, these inspections will be performed by the MS4 Coordinator and MS4 General Inspector.

The Parish will implement SPCC training for employees responsible for handling fuel as a part of their workday. This training is peformed by the MS4 Coordinator annually and is offered to employees of Public Works, Waste Water, Water Works, and when requested, the Recreation Department and Government Buildings.

6.0 Public Education

Community support is critical to ensure the success of any stormwater management program and the implementation of watershed management practices. To promote watershed stewardship and awareness of nonpoint source pollution, the St. Charles Parish Environmental Manager will put together a Public Information and Education Plan to provide a comprehensive set of mechanisms to engage community groups, business owners, residents, and students and implement a proactive education and information program. These efforts complement structural BMPs, watershed monitoring, and watershed inspections by encouraging Parish citizens to play an active role in protecting local water resources. The components of the program are diverse and include educational activities such as presentations and workshops.

Educational activities are not only an important part of the stormwater management program but are required by the MS4 permit. Certain educational activities are conducted as part of the Illicit Discharge Detection and Elimination Program and the public and private facility inspections. Table 6-1 summarizes the Parish's educational activities related to stormwater management, and the programs or requirements to which they are related. Educational activities are tracked in an electronic database and documented by the Parish and submitted as part of each year's annual report.

The Parish has further developed the website to include Frequently Asked Questions (FAQs) links from EPA, LDEQ and the Center for Watershed Protection, as well as a video link to "After the Storm". The Parish stormwater page also has a link for reporting drainage and garbage concerns. Additionally, an Environmental Reporting utility has been added to the main page of the website. The Parish will continue tracking and responding to complaints and concerns. These complaints and concerns are received in a number of ways including through the utility, and through telephone, email, and verbal communication with Parish officials. Further website development will continue in the coming years.

St Charles Parish DPW and MS4 Coordinator reviews available pamphlets and literature readily available online at LDNR or EPA's websites, decide which ones to use and direct at a specific audience, then distributing the pamphlets at locations of interest and Parish buildings and events by the Public Information Office.

The Parish will continue to mark storm drains with "No Dumping" or similar message to discourage non-stormwater discharges. This provides educational awareness to residents that the catch basin is directly connected to the parish receiving waters.

St. Charles Parish organizes Trash Bash day every Spring with volunteers from around the community including students and representatives from local industry to pick up roadside debris and inform the community that roadside pollution directly contributes to the contamination of local recieving waters.

For more information see https://www.facebook.com/scptrashbash/ or http://www.stcharlesparish-la.gov/government/special-government-events/trash-bash/previous-trash-bash-events

Household Hazardous Materials Collection Day held every Spring provides area households an opportunity to properly dispose or recycle materials that are inappropriate for curbside pickup. Materials such as solvents, pesticides and herbicides, used oil, electronics, and corrosives require special handling to minimize safety and environmental impacts.

TABLE 6-1
Public Educational Activities
St. Charles Parish Stormwater Management Program

- Promote access to educational and informational material through the stormwater link on the Parish web site.
- Distribute educational material to the public through handouts and brochures made available in the Parish headquarters. Distribute educational material during industrial, commercial and construction inspections.
- Annual Events: Household Hazardous Materials Collection Day and Trash Bash
- Airing “After the Storm” and the St. Charles Parish Today MS4 episode on a rotating basis in the monthly programming schedule for Ch. 6)
- Frequent dialogue with developers and land owners during construction inspections regarding the importance of proper erosion and sedimentation control via pre-application and pre-construction meetings throughout the permitting process.
- Maintaining the Stormwater web sites and updating their events, training opportunities, and educational materials.

7.0 Public Involvement

St. Charles Parish continues to promote public involvement activities to complement the educational activities. The Parish supports programs such as Trash Bash Day and Household Hazardous Waste Day. Certain public involvement activities are conducted as part of the Illicit Discharge Detection and Elimination Program and the public and private facility inspections. Table 7-1 summarizes the Parish's public outreach and involvement activities related to stormwater management, and the programs or requirements to which they are related. Public involvement activities are tracked in an electronic database and documented by the Parish and submitted as part of each year's annual report.

TABLE 7-1
Public Outreach/Public Involvement Activities
St. Charles Parish Stormwater Management Program

Carrying out at least one recycling event each year. As an example, but not limited to, Trash Bash Day, Household Hazardous Material Collection Day
The Planning and Zoning Department continues to maintain the relationship with the Louisiana CRS users group FLOAT to incorporate water quality protection with flood plain management.
Promoting stormwater management through participation in the Louisiana Urban Stormwater Coalition (LUSC).
Promoting, publicizing, and facilitating the reporting of illicit discharges and associated water quality problems. Contact information and an online reporting form is located both on the main page, the Public Works/Wastewater departmental page, and in the Residents section of the St. Charles Parish website.

8.0 References

Urban Stormwater Runoff, Roads, Highways Bridges; Best Management Practices (BMPs) for Coastal Louisiana Non-Point Source Pollution-2008, LaDNR

St. Charles Parish Comprehensive Land Use Plan 2030

St. Charles Parish Code of Ordinances Chapter 25 – Stormwater Management and Erosion and Sediment Control.

Wastewater Department Sewer Overflow Response Plan (SORP)

Drainage System Maintenance Procedure and Watershed Inspection List

St. Charles Parish SPCC plans for municipal facilities

Appendices and Attachments

Appendices

A St. Charles Parish Code of Ordinances, Chapter 25 - Stormwater Management and Erosion and Sediment Control

B Drainage System Maintenance Procedures and Watershed Inspection List

C Municipal SPCC inventory

D Sewer Overflow Response Plan

See enclosure: St. Charles Parish Ord: 14-1-12

DRAINAGE SYSTEM MAINTENANCE PROCEDURE

RESPONSIBILITIES:

IT SHALL BE THE RESPONSIBILITY OF THE ASSISTANT DIRECTOR OF ROADS & DRAINAGE.
IT SHALL BE THE RESPONSIBILITY OF THE EAST AND WEST BANK SUPERINTENDENTS OF DRAINAGE TO MAINTAIN THE INSPECTION AND MAINTENANCE RECORDS FOR AT LEAST FIVE (5) YEARS.
IT SHALL BE THE RESPONSIBILITY OF THE MS4 SUBSECTION OF PUBLIC WORKS TO MAINTAIN FUEL TANK INSPECTION FORMS FOR NO LESS THAN THREE (3) YEARS.
IT SHALL BE THE RESPONSIBILITY OF EACH AREA DRAINAGE FOREMAN TO CONDUCT THE INSPECTIONS AS SPECIFIED ON THE WATERSHED INSPECTION MAINTENANCE LISTS.

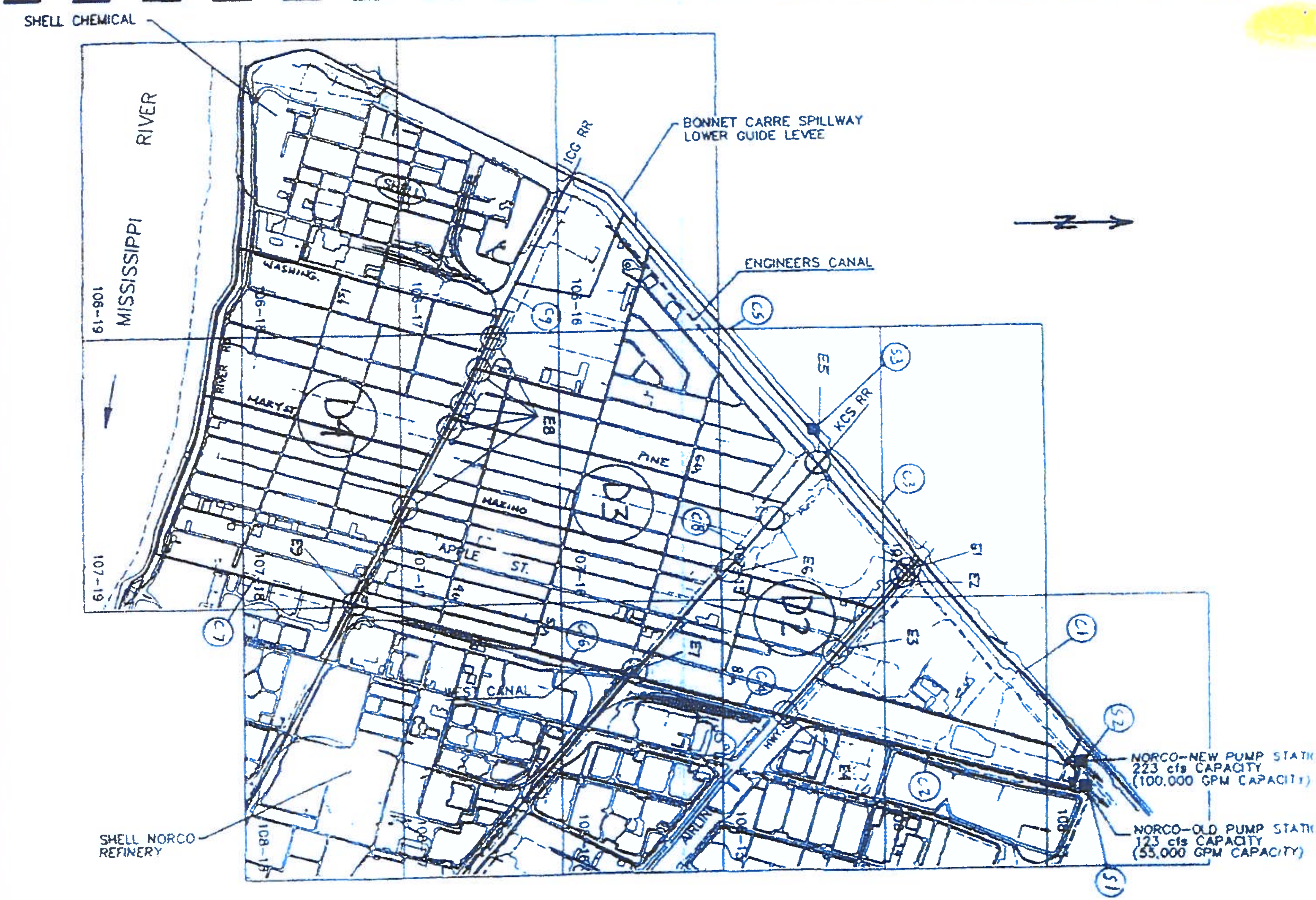
AREA:
EACH WATERSHED IN THE PARISH IS DETAILED BY DRAINAGE STRUCTURE. THE RATE OF INSPECTION IS SPECIFIED, BY DRAINAGE STRUCTURE. INSPECTION FORMS AND WATERSHED MAP SCHEDULES SHALL BE PROVIDED FOR USE BY THE AREA FOREMAN.

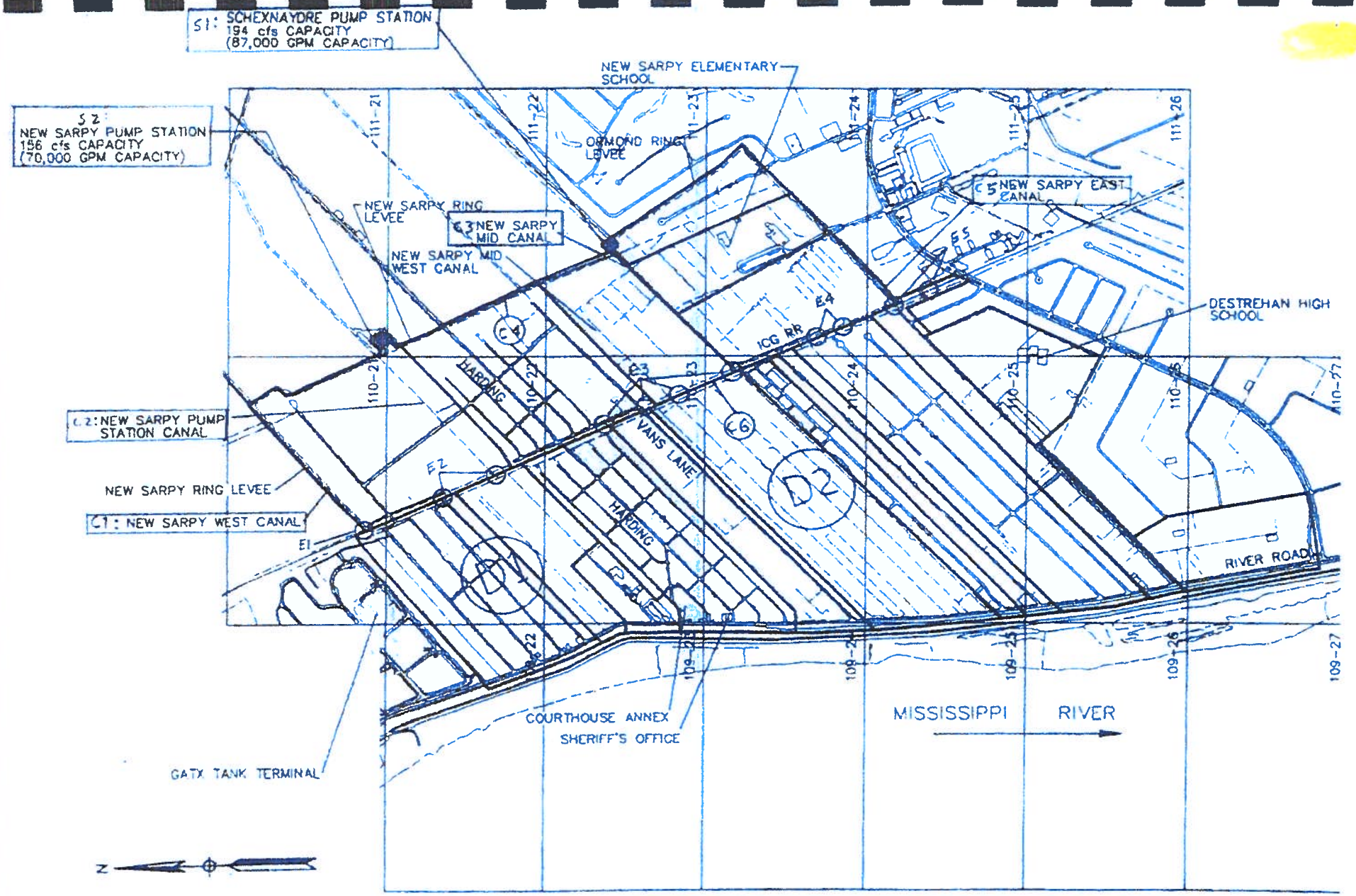
PROCEDURE:

1. **ALL INSPECTIONS AND CORRECTIVE ACTIONS SHALL BE RECORDED IN ASSETWORKS OR VIA WORK ORDER.**
2. **COMPLETED WATERSHED FORMS SHALL BE KEPT ON RECORD FOR AT LEAST THREE (3) YEARS BY THE ASSISTANT DIRECTOR OF ROADS AND DRAINAGE.**
3. **INSPECTIONS SHALL BE PERFORMED AS THE MAP SCHEDULE INDICATES**
4. **COMPLAINTS SHALL BE INSPECTED THE SAME DAY THEY ARE RECEIVED OR THE NEXT BUSINESS DAY IF THE COMPLAINTS ARE RECEIVED ON THE WEEKEND AND THEY ARE NOT DEEMED AN IMMEDIATE THREAT TO LIFE AND PROPERTY.**
5. **INSPECTION OF ALL DRAINAGE FEATURES SHOULD BE PERFORMED IMMEDIATELY BEFORE AND AFTER A MAJOR STORM EVENT, OR ANY RAIN EVENT THAT CAUSES SIGNIFICANT LOCALIZED FLOODING.**
6. **SPECIFIC SITES THAT BECOME PROBLEM LOCATIONS SHOULD BE COMMUNICATED TO THE ASSISTANT DIRECTOR OF ROADS AND DRAINAGE FOR ADDITION TO THE REGULAR INSPECTION SCHEDULE. FUEL TANK ISSUES AT PUMP STATIONS AND EQUIPMENT YARDS SHOULD BE REPORTED TO THE MS4 COORDINATOR IMMEDIATELY.**

CORRECTIVE ACTIONS:

1. **INSPECTOR SHOULD IMMEDIATELY REMOVE ANY BLOCKAGES OR POTENTIAL BLOCKAGES IMMEDIATELY UPON DISCOVERY.**
2. **MATERIAL THAT TAKES MORE THAN ONE PERSON TO REMOVE SHOULD BE REMOVED BY THE AREA FOREMAN'S CREW THE SAME WORKING DAY.**
3. **MATERIAL REQUIRING A PIECE OF HEAVY EQUIPMENT TO REMOVE SHALL BE COMPLETED WITHIN TWO (2) WORKING DAYS.**
4. **ALL REPAIRS AND PREVENTATIVE MAINTENANCE IS PERFORMED BY IN-HOUSE PERSONNEL OR BY AUTHORIZED REPRESENTATIVES OF THE EQUIPMENT MANUFACTURER USING ORIGINAL PARTS AND SPECIFICATIONS.**


SHELL CHEMICAL
MISSISSIPPI RIVER
BONNET CARRE SPILLWAY LOWER GUIDE LEVEE
ICC RR
ENGINEERS CANAL
KCS RR
NORCO–NEW PUMP STATI
223 cfs CAPACITY
(100,000 GPM CAPACITY)
NORCO–OLD PUMP STATI
123 cfs CAPACITY
(55,000 GPM CAPACITY)
SHELL NORCO REFINERY
D1
D2
D3
D4
E1
E2
E3
E4
E5
E6
E7
E8
E9
C1
C2
C3
C4
C5
C6
C7
C8
C9
S1
S2
S3
106-16
106-17
106-18
106-19
107-15
107-16
107-17
107-18
107-19
108-13
108-14
108-15
108-16
108-17
108-18
PINE
MAZINO
APPLE ST.
WASHING.
MARY ST
RIVER RD
WEST CANAL
AIRLINE
HWY.


S1: SCHEXNAYDRE PUMP STATION
194 cfs CAPACITY
(87,000 GPM CAPACITY)
NEW SARPY ELEMENTARY SCHOOL
S2:
NEW SARPY PUMP STATION
156 cfs CAPACITY
(70,000 GPM CAPACITY)
ORMOND RING LEVEE
C5 NEW SARPY EAST CANAL
NEW SARPY RING LEVEE
C3 NEW SARPY MID CANAL
NEW SARPY MID WEST CANAL
DESTREHAN HIGH SCHOOL
ICG RR
HARDING
VANS LANE
C2: NEW SARPY PUMP STATION CANAL
NEW SARPY RING LEVEE
C1: NEW SARPY WEST CANAL
D2
RIVER ROAD
COURTHOUSE ANNEX
SHERIFF'S OFFICE
MISSISSIPPI RIVER
GATX TANK TERMINAL

Almedia– Watershed Inspection/Maintenance List

Maintenance List Item No.	Schedule Goal	MDP Map No.	Item
D 1	2 X MONTH	PLATE 25	ALL DITCHES• NORTH OF AIRLINE HWY
D 2	2 X MONTH	PLATE 25	ALL DITCHES• BETWEEN KCSRR AND AIRLINE HWY
D 3	2 X MONTH	PLATE 25	ALL DITCHES• SOUTH OF ICGRR BETWEEN RIVER BEND AND PITRE DR
D 4	2 X MONTH	PLATE 25	ALL DITCHES• SOUTH OF ICGRR BETWEEN PITRE DR AND PARISH LINE
C 1	2 X YEAR	121-21, 121-22	CANAL ALONG PARISH LINE IN JAMES BUSINESS PARK
C 2	2 X YEAR	121-23	CANAL ALONG PARISH LINE FROM AIRLINE HWY TO RIVER ROAD
C 3	2 X YEAR	PLATE 25	DITCHES ALONG KCSRR
C 4	2 X YEAR	PLATE 25	DITCHES ALONG ICGRR
E 1	1 X WEEK	119-24	1-48" RCP UNDER KCSRR; 1-48" RCP
E 2	1 X WEEK	120-23, 120-24	1-42" SP; 1-42" SP W/GATE, 1-42" SP UNDER ICGRR, 2-36" SP UNDER KCSRR; 2-30" CMP, 2-24" CMP NORTH OF KCSRR
E 3	1 X WEEK	120-23	3-48" RCP WEST OF WALKER P.S., 2-3'×3' CBC UNDER AIRLINE HWY BY WALKER P.S., 2-30" RCP FROM AIRLINE HWY TO KCSRR
E 4	1 X WEEK	120-23	1-36" RCP BETWEEN KCSRR AND ICGRR
E 5	1 X WEEK	120-23	1-24" RCP; 1-36" RCP, 1-36" RCP UNDER ICGRR; 1-36" RCP UNDER KCSRR
E 6	1 X WEEK	120-23	1-24" SP, 1-36" RCP UNDER ICGRR; AND 1-36" RCP UNDER KCSRR
E 7	1 X WEEK	121-22	2-6'×6' CBC UNDER AIRLINE HWY NEAR PARISH LINE
S 1	As Needed	PLATE 25	BARSCREENS AND PUMPS AT OAKLAND PUMP STATION
S 2	As Needed	PLATE 25	BARSCREENS AND PUMPS AT FAIRFIELD PUMP STATION
S 3	As Needed	PLATE 25	BARSCREENS AND PUMPS AT WALKER PUMP STATION

• Includes open ditches and subsurface drainage facilities

CMP: Corrugated Metal Pipe
CBC: Concrete Box Culvert
SP: Steel Pipe
RCP: Reinforced Concrete Pipe

ICGRR: Illinois Central Gulf Railroad
KCSRR: Kansas City Southern Railroad
TPRR: Texas and Pacific Railroad

Turtle Pond– Watershed Inspection/Maintenance List

Maintenance List Item No.	Schedule Goal	MDP Map No.	Item
D 1	2 X MONTH	PLATE 23	ALL DITCHES* BORDERED BY RIVER ROAD, ALMEDIA RD, ICGRR, AND PALOMINO DR
D 2	2 X MONTH	PLATE 23	ALL DITCHES* BORDERED BY RIVER ROAD, RIVER BEND, ICGRR AND ALMEDIA RD
D 3	2 X MONTH	PLATE 23	ALL DITCHES* NORTH OF ICGRR AND WEST OF ALMEDIA RD (TURTLE POND)
D 4	2 X MONTH	PLATE 23	ALL DITCHES* EAST OF ALMEDIA RD AND NORTH OF ICGRR
C 1	2 X YEAR	118-24, 119-24	ALL DITCHES RUNNING ALONG KCSRR FROM TURTLE POND P.S. TO RIVER BEND
C 2	2 X YEAR	PLATE 23	ALL DITCHES RUNNING ALONG ICGRR FROM PALOMINO DR TO RIVER BEND
C 3	2 X YEAR	118-25, 118-24	DITCH RUNNING FROM ICGRR TO KCSRR PARALLEL TO EISENHOWER ST
C 4	2 X YEAR	119-24	CANAL RUNNING FROM ICGRR TO AIRLINE HWY BY PARISH TRUCK SALES
C 5	2 X YEAR	119-24	CANAL FROM AIRLINE HWY TO KCSRR 300'± WEST OF RIVER BEND
E 1	1 X WEEK	118-24	1-48" RCP UNDER KCSRR AT INTERSECTION WITH ALMEDIA RD
E 2	1 X WEEK	118-24	1-3'×3' CBC UNDER AIRLINE HWY AT INTERSECTION WITH ALMEDIA RD
E 3	1 X WEEK	119-24	1-48" RCP UNDER KCSRR AND 1-48" RCP, 1-36" CMP UNDER ICGRR
E 4	1 X WEEK	119-24	1-24" CBC UNDER AIRLINE HWY AT PARISH TRUCK SALES
E 5	1 X WEEK	119-24	1-36" CMP UNDER KCSRR 250'± WEST OF RIVER BEND
E 6	1 X WEEK	119-24	1-24" CBC UNDER AIRLINE 250'± WEST OF RIVER BEND
E 7	1 X WEEK	118-25	1-42" RCP, 1-60" SP UNDER ICGRR
E 8	1 X WEEK	118-26	1-36" SP; 1-30" RCP; TRESTLE; 1-36" RCP UNDER ICGRR
S 1	As Needed	118-24	BARSCREENS AND PUMPS AT TURTLE POND PUMP STATION

* Includes open ditches and subsurface drainage facilities

CMP: Corrugated Metal Pipe
CBC: Concrete Box Culvert
SP: Steel Pipe
RCP: Reinforced Concrete Pipe

ICGRR: Illinois Central Gulf Railroad
KCSRR: Kansas City Southern Railroad
TPRR: Texas and Pacific Railroad

Maintenance List Item No.	Schedule Goal	MDP Map No.	Item
E1	1x/week	117-26	1-66" CMP north of ICG RR, RR trestle and 1-48" RCP under ICG RR
E2	1x/week	117-26	1-36" RCP south of ICG RR and 1-36" RCP under ICG RR
E3	1x/week	117-26	3-36" CMP south of ICG RR, 1-36" CMP under ICG and 1-48" RCP under ICG RR
E4	1x/week	118-26	1-36" SP under ICG RR
D1	2x/month	117-26,117-27, 117-28,118-26, 118-27,118-28, 118-29	All ditches* and catch basins within the Bar None Subdivision
C1	2x/year	117-26,118-26	Ditch running parallel and south of ICG RR (entire length of Bar None Water shed) North Drainage Channel
C2	2x/year	117-26,117-27, 118-27,118-28	Ditch running parallel and west of Palomino Dr. (entire length of Bar None Water shed) West Drainage Channel
C3	2x/year	118-26,118-27, 118-28,	Ditch running parallel and east of Palomino Dr. (entire length of Bar None Water shed) East Drainage Channel

* Includes open ditches and subsurface drainage facilities

CMP: Corrugated Metal Pipe
CBC: Concrete Box Culvert
SP: Steel Pipe
RCP: Reinforced Concrete Pipe

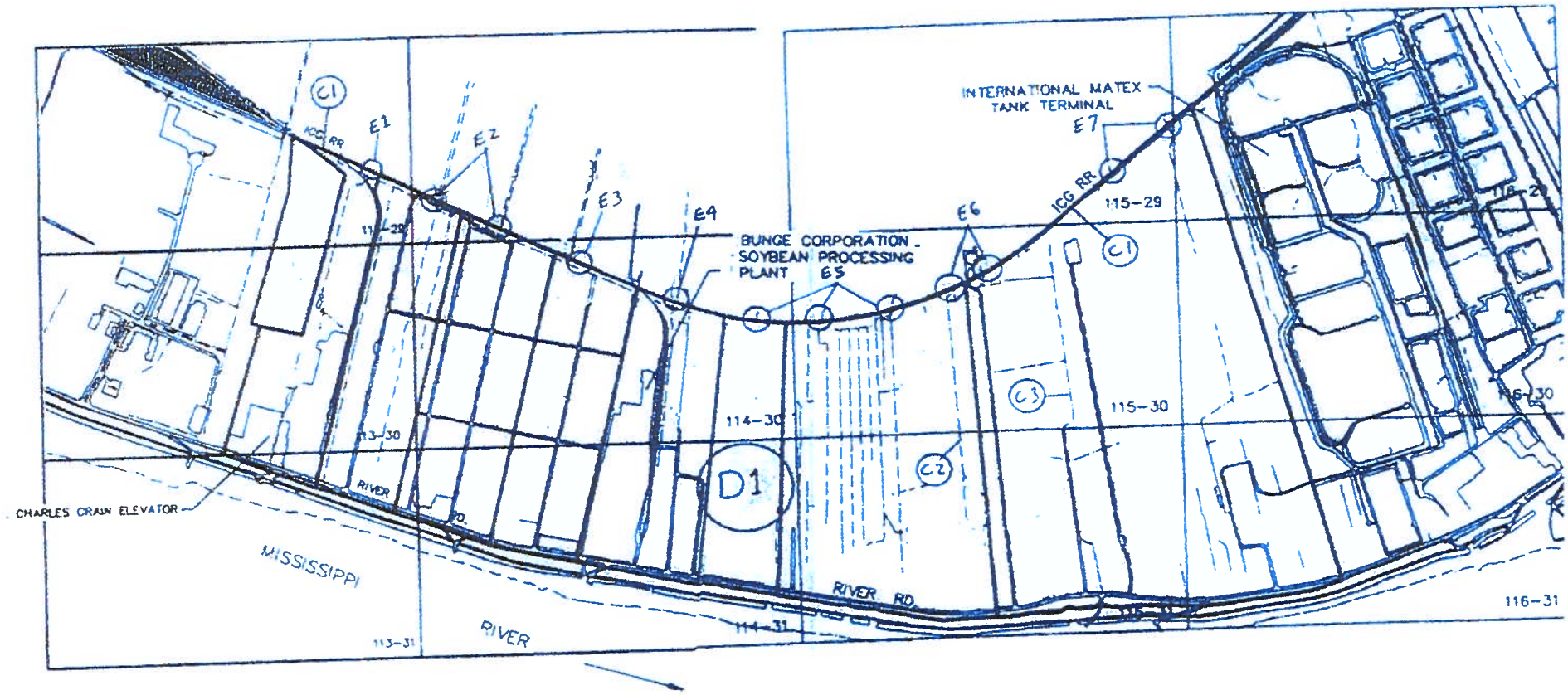
ICGRR: Illinois Central Gulf Railroad
KCSRR: Kansas City Southern Railroad

Maintenance List Item No.	Schedule Goal	MDP Map No.	Item
E1	1x/week	116-28	2-36" RCP and 2-48" RCP under ICG RR
E2	1x/week	116-28 117-27	2-36" RCP under ICG RR
E3	1x/week	116-28 117-27	2-36" RCP under ICG RR
D1	2x/month	116-28,116-29, 116-30,117-27, 117-28,117-29, 117-30,117-31	All Ditches*
C1	2x/year	116-28,117-27	Ditch running parallel and south of ICG RR from 4th St. to St. Rose Ave.
S1	as needed	117-27	Bar screens on 4th St. pump station
S2	as needed	116-28	Bar screens on Oak St. pump station

* Includes open ditches and subsurface drainage facilities

CMP: Corrugated Metal Pipe
CBC: Concrete Box Culvert
SP: Steel Pipe
RCP: Reinforced Concrete Pipe

ICGRR: Illinois Central Gulf Railroad
KCSRR: Kansas City Southern Railroad



ES PARISH, LOUISIANA

MASTER DRAINAGE PLAN

Destrehan Plantation & Plantation Business Center– Watershed Inspection/Maintenance List

Maintenance List Item No.	Schedule Goal	MDP Map No.	Item
D 1	2 X MONTH	PLATE 9	ALL DITCHES* BETWEEN SOUT DESTRHAN AVE TO GRAIN ELEVATOR
C 1	2 X YEAR	PLATE 9	COLLECTOR CHANNEL RUNNING EAST AND PARALLEL TO SOUTH DESTREHAN AVE
C 2	2 X YEAR	PLATE 11	COLLECTOR CHANNEL BETWEEN ALPHA DR. AND GRAIN ELEVATOR, RUNNING PARALLEL TO ALPHA DR
E 1	1 X WEEK	112-28	1-60" SP UNDER ICGRR AT END OF COLLECTOR CHANNEL DESCRIBED IN C 1
E 2	1 X WEEK	113-29	2-42" RCP, 2-48" RCP UNDER ICGRR AT END OF COLLECTOR CHANNEL DESCRIBED IN C 2
E 3	1 X WEEK	113-29	1-24" RCP UNDER ICGRR 50'± WEST OF COLLECTOR CHANNEL DESCRIBED IN C 2

* Includes open ditches and subsurface drainage facilities

CMP: Corrugated Metal Pipe
CBC: Concrete Box Culvert
SP: Steel Pipe
RCP: Reinforced Concrete Pipe

ICGRR: Illinois Central Gulf Railroad
KCSRR: Kansas City Southern Railroad
TPRR: Texas and Pacific Railroad

TAFT– Watershed Inspection/Maintenance List

Maintenance List Item No.	Schedule Goal	MDP Map No.	Item
D 1	2 X MONTH	21	ALL DITCHES* FROM WATERFORD 3 TO UNION CARBIDE
C1	2 X YEAR	21	ALL DITCHES* RUNNING ALONG TPRR
C 2	2 X YEAR	21	ALL DITCHES* RUNNING ALONG HWY 3127
C 3	2 X YEAR	21	2 CANALS FROM TPRR TO HWY 3127
C 4	2 X YEAR	21	CANAL FROM TPRR TO HWY 3127
E 1	1 X WEEK	21	ALL CULVERTS UNDER AND ALL BRIDGES OVER HWY 3127
E 2	1 X WEEK	21	1-60" RCP, 1-36" CMP, 1-30" CMP, 1-48" RCP UNDER TPRR
E 3	1 X WEEK	21	1-30" CMP, 1-30" RCPA UNDER TPRR
E 4	1 X WEEK	21	1-36" RCP, 1-36" RCP UNDER TPRR
E 5	1 X WEEK	21	1-36" RCP, 1-72" CMP UNDER TPRR

* Includes open ditches and subsurface drainage facilities

CMP:	Corrugated Metal Pipe	ICGRR:	Illinois Central Gulf Railroad
CBC:	Concrete Box Culvert	KCSRR:	Kansas City Southern Railroad
SP:	Steel Pipe	TPRR:	Texas and Pacific Railroad
RCP:	Reinforced Concrete Pipe	SPRR:	Southern Pacific Railroad

KILLONA– Watershed Inspection/Maintenance List

Maintenance List Item No.	Schedule Goal	MDP Map No.	Item
D 1	2 X MONTH	24	ALL DITCHES* BETWEEN PARISH LINE TO WATERFORD 3
C 1	2X YEAR	24	LITTLE PECAN TREE AND PECAN TREE CANAL
C 2	2X YEAR	24	ALL DITCHES* ALONG TPRR
C 3	2X YEAR	24	CANAL NORTH AND PARALLEL TO HWY 3127
E 1	1 X WEEK	24	2-36" CMP, 1-48" CMP, 1-48" CMP, 2-48" CMP, 1-48" CMP UNDER TPRR
E 2	1 X WEEK	24	1-36" CMP, 1-36" RCP, 1-48" CMP, 1-48" RCP, 1-4'×6' CBC UNDER TPRR
E 3	1 X WEEK	24	2-36" CMP, 1-36" RCP, 1-36" RCP, 1-36" RCP, 1-42" RCP, 2-36" RCP, 1-36" RCP, 2-48" CMPA UNDER TPRR
E 4	1 X WEEK	24	ALL CROSS DRAINS AND BRIDGES ALONG HWY 3127

* Includes open ditches and subsurface drainage facilities

CMP:	Corrugated Metal Pipe	ICGRR:	Illinois Central Gulf Railroad
CBC:	Concrete Box Culvert	KCSRR:	Kansas City Southern Railroad
SP:	Steel Pipe	TPRR:	Texas and Pacific Railroad
RCP:	Reinforced Concrete Pipe	SPRR:	Southern Pacific Railroad

HAHNVILLE 1– Watershed Inspection/Maintenance List

Maintenance List Item No.	Schedule Goal	MDP Map No.	Item
D 1	2 X MONTH	18	ALL DITCHES* FROM UNION CARBIDE TO HWY 3160
C 1	2 X YEAR	18	ALL DITCHES* ALONG TPRR
C 2	2 X YEAR	18	DITCHES* ON EITHER SIDE OF HWY 3160
C 3	2 X YEAR	18	DITCHES* ON EITHER SIDE OF HWY 3127
C 4	2 X YEAR	18	CRAWFISH PLANT ROAD CANAL
E 1	1 X WEEK	18	BRIDGE CROSSING HWY 3127
E 2	1 X WEEK	18	3-36" RCP, 1-36" CMP, 1-36" RCP, 2-48" CMP UNDER TPRR
E 3	1 X WEEK	18	1-4'×6' CBC, 2-48" CMP, 2-84" CMPA UNDER TPRR
E 4	1 X WEEK	18	1-48" CMP, TRESTLE UNDER TPRR

* Includes open ditches and subsurface drainage facilities

CMP:	Corrugated Metal Pipe	ICGRR:	Illinois Central Gulf Railroad .
CBC:	Concrete Box Culvert	KCSRR:	Kansas City Southern Railroad
SP:	Steel Pipe	TPRR:	Texas and Pacific Railroad
RCP:	Reinforced Concrete Pipe	SPRR:	Southern Pacific Railroad

HAHNVILLE 2– Watershed Inspection/Maintenance List

Maintenance List Item No.	Schedule Goal	MDP Map No.	Item
D 1	2 X MONTH	15	ALL DITCHES* FROM HWY 3160 TO AVALON SUBDIVISION
C 1	2 X YEAR	15	ALL DITCHES* ALONG TPRR
C 2	2 X YEAR	15	ALL DITCHES* ALONG HWY 3127
C 3	2 X YEAR	15	VIAL CANAL
C 4	2 X YEAR	15	CANAL FROM TPRR TO HWY 3127
C 5	2 X YEAR	15	CANAL BEHIND FASHION PLANTATION SUBDIVISION (WHEN COMPLETED)
E 1	1 X WEEK	15	1-48" CMP, 1-4'×5' CBC, 1-36" CMP UNDER TPRR
E 2	1 X WEEK	15	1-42" RCP, 1-36" RCP, 1-36" RCP, 2-48" RCP UNDER TPRR
E 3	1 X WEEK	15	2-36" RCP, 1-36" RCP, 1-48" RCP UNDER TPRR
E 4	1 X WEEK	15	1-36" RCP, 2-36" RCP UNDER TPRR
E 5	1 X WEEK	15	2-42" CMPA UNDER HWY 3127
E 6	1 X WEEK	15	1-36" CMPA, 1-36" CMPA UNDER HWY 3127

* Includes open ditches and subsurface drainage facilities

CMP:	Corrugated Metal Pipe	ICGRR:	Illinois Central Gulf Railroad
CBC:	Concrete Box Culvert	KCSRR:	Kansas City Southern Railroad
SP:	Steel Pipe	TPRR:	Texas and Pacific Railroad
RCP:	Reinforced Concrete Pipe	SPRR:	Southern Pacific Railroad

LULING I-310– Watershed Inspection/Maintenance List

Maintenance List Item No.	Schedule Goal	MDP Map No.	Item
D 1	2 X MONTH	12	ALL DITCHES* FROM AVALON SUBDIVISION TO I-310
C 1	2 X YEAR	12	HYMEL CANAL
C 2	2 X YEAR	12	ALL DITCHES* ALONG TPRR
C 3	2 X YEAR	12	ALL DITCHES* ALONG HWY 3127
C 4	2 X YEAR	12	CANAL FROM TPRR TO INTERSECTION WITH HYMEL CANAL
E 1	1 X WEEK	12	2-36" CMPA, BRIDGE, 2-42" CMPA UNDER HWY 3127
E 2	1 X WEEK	12	1-36" RCP, 1-36" RCP, 2-36" RCP UNDER TPRR
E 3	1 X WEEK	12	2-36" RCP, 1-36" SP, 1-36" RCP UNDER TPRR

* Includes open ditches and subsurface drainage facilities

CMP:	Corrugated Metal Pipe	ICGRR:	Illinois Central Gulf Railroad
CBC:	Concrete Box Culvert	KCSRR:	Kansas City Southern Railroad
SP:	Steel Pipe	TPRR:	Texas and Pacific Railroad
RCP:	Reinforced Concrete Pipe	SPRR:	Southern Pacific Railroad

AMA-SELLERS– Watershed Inspection/Maintenance List

Maintenance List Item No.	Schedule Goal	MDP Map No.	Item
D1	2X MONTH	4	ALL DITCHES* FROM GRAIN ELEVATOR TO PARISH LINE
C1	2X YEAR	4	ALL DITCHES* ALONG TPRR
C2	2X YEAR	4	SELLERS CANAL
C3	2X YEAR	4	ALL DITCHES* LEADING TO TPRR FROM RIVER ROAD
C 4	2 X YEAR	4	DITCH IN REAR OF ST. MARK AVE.
E 1	1 X WEEK	4	1-24" CMP, 1-24" CMP, 1-24" CMP UNDER TPRR
E 2	1 X WEEK	4	1-24" CMP, 1-24" CMP, 1-24" CMP, 1-24" CMP UNDER TPRR
E 3	1 X WEEK	4	1-48" CMP, 1-36" CMP, 2-72" CMP, 1-54" CMP UNDER TPRR
S1	AS NEEDED	4	PUMPS AND BARSCREEN AT AMA PUMP STATION

* Includes open ditches and subsurface drainage facilities

CMP: Corrugated Metal Pipe
CBC: Concrete Box Culvert
SP: Steel Pipe
RCP: Reinforced Concrete Pipe

ICGRR: Illinois Central Gulf Railroad
KCSRR: Kansas City Southern Railroad
TPRR: Texas and Pacific Railroad

LULING – Watershed Inspection/Maintenance List

Maintenance List Item No.	Schedule Goal	MDP Map No.	Item
D 1	2 X MONTH	7	ALL DITCHES* NORTH OF TPRR BETWEEN I-310 AND SUGARHOUSE RD.
D 2	2 X MONTH	7	ALL DITCHES* NORTH OF TPRR BETWEEN SUGARHOUSE RD. AND WARREN DR.
C 1	2 X YEAR	7	ALL DITCHES ALONG TPRR
C 2	2 X YEAR	7	CANAL PARALLEL AND WEST OF GASSEN ST.
C 3	2 X YEAR	7	BOUTTE AND LULING CANALS
C 4	2 X YEAR	7	CANAL RUNNING PARALLEL AND EAST OF TURNER LN.
C 5	2 X YEAR	7	CANAL RUNNING ALONG SUGARHOUSE RD.
C 6	2 X YEAR	7	ALL DITCHES* ALONG AND NORTH OF SPRR
C 7	2 X YEAR	7	2 CANALS PARALLEL AND EAST OF PAUL MAILLARD RD.
C 8	2 X YEAR	7	CANAL WEST AND PARALLEL TO BARTON AVE.
C 9	2 X YEAR	7	DITCH PARALLEL AND EAST OF EVELYN DR. FROM NOLA ST. TO PUMP STATION
C 10	2 X YEAR	7	LARGE DITCH IN CANE FIELD
E 1	1 X WEEK	7	1-36" RCP, 1-36" RCP, 1-36" RCP, 1-48" RCP, 1-36" RCP UNDER TPRR
E 2	1 X WEEK	7	2-38" CMP, 1-24" CMP UNDER TPRR
E 3	1 X WEEK	7	1-30" RCP AND 1-24" RCP, 1-36" CMP UNDER TPRR
E 4	1 X WEEK	7	2-30" RCP, 1-30" RCP UNDER TPRR
E 5	1 X WEEK	7	TRESTLE, 1-30" RCP, TRESTLE UNDER SPRR
E 6	1 X WEEK	7	TRESTLE, TRESTLE, TRESTLE, TRESTLE UNDER SPRR
E 7	1 X WEEK	7	TRESTLE, TRESTLE, 2-24" RCP, 1-54" CMP, 1-54" CMP UNDER SPRR
S 1	As Needed	7	PUMPS AND BARSCREENS AT 80 ARPENT PUMP STATION
S 2	As Needed	7	PUMPS AND BARSCREENS AT BOUTTE PUMP STATION
S 3	As Needed	7	PUMPS AND BARSCREENS AT HACKBERRY PUMP STATION
S 4	As Needed	7	PUMPS AND BARSCREENS AT BARTON PUMP STATION
S 5	As Needed	7	PUMPS AND BARSCREENS AT DAVIS PUMP STATION
S 6	As Needed	7	PUMPS AND BARSCREENS AT DAVIS SPRR PUMP STATION

* Includes open ditches and subsurface drainage facilities

CMP:	Corrugated Metal Pipe	ICGRR:	Illinois Central Gulf Railroad
CBC:	Concrete Box Culvert	KCSRR:	Kansas City Southern Railroad
SP:	Steel Pipe	TPRR:	Texas and Pacific Railroad
RCP:	Reinforced Concrete Pipe	SPRR:	Southern Pacific Railroad

BOUTTE, MIMOSA, WILLOWDALE– Watershed Inspection/Maintenance List

Maintenance List Item No.	Schedule Goal	MDP Map No.	Item
D 1	2 X MONTH	27	ALL DITCHES* FROM MAPLE DR AND MAGNOLIA RIDGE TO RIVER RIDGE DRIVE
D 2	2 X MONTH	27	ALL DITCHES* FROM CORONADO DR TO MARYLAND DR
D 3	2 X MONTH	27	ALL DITCHES* FROM MARYLAND DR. TO LAKEWOOD DR.
D 4	2 X MONTH	27	ALL DITCHES IN DAVIS, WILLOWDALE, AND WILLOWRIDGE SUBDIVISIONS
C 1	2 X YEAR	27	ALL CANALS SOUTH ALONG THE SPRR AND ALONG HWY 90
C 2	2 X YEAR	27	ELLINGTON CANAL
C 3	2 X YEAR	27	BLOUIN CANAL
C 4	2 X YEAR	27	COUSINS CANAL
C 5	2 X YEAR	27	PETERSON CANAL
C 6	2 X YEAR	27	DRAINAGE DITCHES BETWEEN RIVER OAKS ST AND OAK LN. AND BETWEEN WANDA ST AND ST ANTHONY ST.
C 7	2 X YEAR	27	CANAL WEST OF BEAUPRE DR.
C 8	2 X YEAR	27	DITCH EAST OF BEAUPRE DR. AND NORTH OF COTTAGE DR TO WILLOWRIDGE PUMP STATION
C 9	2 X YEAR	27	CANAL SOUTH OF COTTAGE DR.
C 10	2 X YEAR	27	CANAL BEHIND EAST LEVERT AROUND TO WILLOW RIDGE PUMP STATION
C 11	2 X YEAR	27	CANAL EAST OF RIVER RIDGE
C 12	2 X YEAR	27	CANAL WEST OF MARYLAND DR.
E 1	1 X WEEK	27	2-5'×5' CBC UNDER HWY 90
E 2	1 X WEEK	27	1-5'×5' CBC, 1-5'×5' CBC UNDER HWY 90
E 3	1 X WEEK	27	2-5'×5' CBC, 2-4'×4' CBC, 1-5'×5' CBC HWY 90
E 4	1 X WEEK	27	1-5'×5' CBC, 1-5'×5' CBC, 1-5'×5' CBC UNDER HWY 90
E 5	1 X WEEK	27	2-5'×5' CBC UNDER HWY 90
E 6	1 X WEEK	27	1-48" RCPA UNDER WILLOWDALE BLVD.
S 1	As Needed	27	PUMPS AND BARSCREEN AT HOLDER PUMP STATION
S 2	As Needed	27	PUMPS AND BARSCREEN AT CORONADO PUMP STATIONS
S 3	As Needed	27	PUMPS AND BARSCREEN AT KELLOG PUMP STATION
S 4	As Needed	27	PUMPS AND BARSCREEN AT COUSINS PUMP STATION
S 5	As Needed	27	PUMPS AND BARSCREEN AT LAOATTUTA PUMP STATION
S 6	As Needed	27	PUMPS AND BARSCREEN AT LAKEWOOD PUMP STATION
S 7	As Needed	27	PUMPS AND BARSCREEN AT LAKEWOOD PUMP STATION 2
S 8	As Needed	27	PUMPS AND BARSCREEN AT WILLOWDALE 1 PUMP STATION
S 9	As Needed	27	PUMPS AND BARSCREEN AT WILLOWDALE 2 PUMP STATION
S 10	As Needed	27	PUMPS AND BARSCREEN AT LAKEWOOD ELEMENTARY PUMP STATION

* Includes open ditches and subsurface drainage facilities

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BAYOU GAUCHE– Watershed Inspection/Maintenance List

Maintenance List Item No.	Schedule Goal	MDP Map No.	Item
D 1	2X MONTH	33	ALL DITCHES* FROM ALONG GRAND BAYOU RD AND SIDE STREETS AT END OF GRAND BAYOU RD
D 2	2X MONTH	33	ALL DITCHES* FROM LUKE ST TO BAYOU GAUCHE ISLAND
C 1	2X YEAR	33	CANAL RUNNING ALONG HWY 306 (CRAWFORD CANAL)
C 2	2X YEAR	33	NO. 10 CANAL
E 1	1X WEEK	33	1-15" CMP, 1-15" CMP, 1-36" CMP IN NO. 10 CANAL
E 2	1X WEEK	33	1-52" CMP, 1-48" CMP, 2-48" CMP, 1-72" CMP, 2-48" CMP IN NO 10 CANAL
E 3	1X WEEK	33	2-48" CMP, 2-48" CMP, 2-48" CMP, 2-48" CMP IN NO. 10 CANAL
S 1	As Needed	33	BARSCREEN AND PUMPS AT SUNSET PUMP STATION

* Includes open ditches and subsurface drainage facilities

CMP: Corrugated Metal Pipe
CBC: Concrete Box Culvert
SP: Steel Pipe
RCP: Reinforced Concrete Pipe

ICGRR: Illinois Central Gulf Railroad
KCSRR: Kansas City Southern Railroad
TPRR: Texas and Pacific Railroad

DES ALLEMANDS– Watershed Inspection/Maintenance List

Maintenance List Item No.	Schedule Goal	MDP Map No.	Item
D 1	2 X MONTH	38	ALL DITCHES* NORTH OF HWY 90, LEVEE RD AND HWY 632
C 1	2 X YEAR	38	CANAL RUNNING NORTH OF HWY 632
C 2	2 X YEAR	38	ALL DITCHES ALONG SPRR
C 3	2 X MONTH	38	CANAL LEADING TO UP THE BAYOU PUMP STATION
C 4	2 X MONTH	38	ALL DITCHES ALONG HWY 90
E 1	1 X WEEK	38	1-24" CMP, 1-18" CMP UNDER OLD SPANISH TRAIL
E 2	1 X WEEK	38	1-18" CMP, 1-24" CMP, 1-24" CMP, 1-24" CMP UNDER RIDGE ROAD
E 3	1 X WEEK	38	1-36" RCP, 1-48" RCP UNDER HWY 90
E 4	1 X WEEK	38	1-24" CMP, 1-2'×3' CBC, 1-4'×4' CBC UNDER HWY 90
E 5	1 X WEEK	38	1-48" RCP, 1-48" RCP, 1-24" RCP, 1-30" RCP UNDER HWY 90
E 6	1 X WEEK	38	2-84" CULVERTS UNDER LEVEE RD.
E 7	1 X WEEK	38	1-12" CMP, 1-24" CMP, 1-30" CMP UNDER HWY 90 BUSINESS ROAD
S1	AS NEEDED	38	PUMPS AND BARSCREEN ON UP THE BAYOU ROAD PUMP STATION
S2	AS NEEDED	38	PUMPS AND BARSCREEN ON DOWN THE BAYOU ROAD PUMP STATION
S3	AS NEEDED	38	PUMP AND BARSCREEN ON CORTEZ PUMP STATION
S 4	AS NEEDED	38	PUMP AND BARSCREEN ON TUNNEL PUMP STATION
S 5	AS NEEDED	38	PUMP AND BARSCREEN ON TREGLE LN PUMP STATION
S 6	AS NEEDED	38	PUMP AND BARSCREEN ON TIPPY PUMP STATION

- Includes open ditches and subsurface drainage facilities

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RCP:	Reinforced Concrete Pipe	SPRR:	Southern Pacific Railroad

PARADIS– Watershed Inspection/Maintenance List

Maintenance List Item No.	Schedule Goal	MDP Map No.	Item
D 1	2X MONTH	32	ALL DITCHES* MAPLE ST. AND HWY 306
C 1	2X YEAR	32	ALL DITCHES SOUTH AND ALONG OLD SPANISH TRAIL
C 2	2X YEAR	32	PARADIS CANAL
C 3	2X YEAR	32	CANALS ALONG HWY 90
C 4	2X YEAR	32	CANAL BEHIND HAHNVILLE HIGH SCHOOL
C 5	2X YEAR	32	CANAL SOUTH OF BARBER RD.
C 6	2X YEAR	32	CANAL ALONG HWY 306 TO GRAND BAYOU RD.
E 1	1 X WEEK	32	1-36" CMP, 1-4'×4' WOOD BOX CULVERT UN SPRR
E 2	1 X WEEK	32	TRESTLE OVER SPRR
E 3	1 X WEEK	32	1-30" RCP, 1-30" RCP, UNDER HWY 90
E 4	1 X WEEK	32	1-30" RCP, 1-18" RCP, 1-18" RCP AND 1-24" RCP UNDER HWY 90
E 5	1 X WEEK	32	BRIDGE OVER PARADIS CANAL
S 1	AS NEEDED	32	BAR SCREEN AT PARADIS PUMP STATION

* Includes open ditches and subsurface drainage facilities

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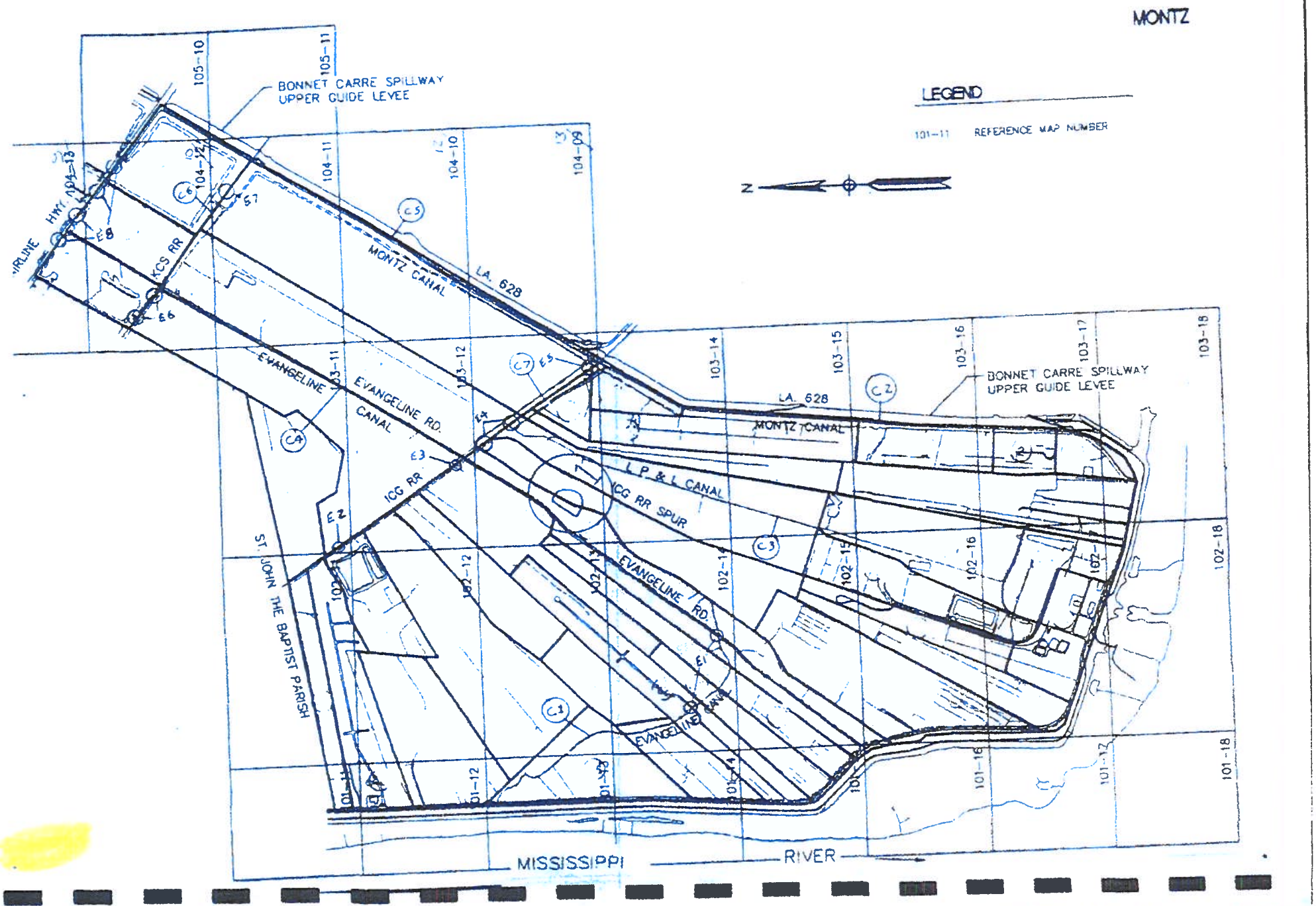
CBC:	Concrete Box Culvert	KCSRR:	Kansas City Southern Railroad
SP:	Steel Pipe	TPRR:	Texas and Pacific Railroad
RCP:	Reinforced Concrete Pipe	SPRR:	Southern Pacific Railroad


MONTZ
LEGEND
101-11 REFERENCE MAP NUMBER
N
BONNET CARRE SPILLWAY
UPPER GUIDE LEVEE
MONTZ CANAL
LA. 628
KCS RR
EVANGELINE CANAL
EVANGELINE RD.
ICG RR
L.P. & L. CANAL
ICG RR SPUR
ST JOHN THE BAPTIST PARISH
MISSISSIPPI RIVER
105-10
105-11
104-11
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104-09
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C2
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C4
C5
C6
C7
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E6
E7
E8

Messages Reports Welcome GWEBER Help Logoff

GMT-5

ST. CHARLES PARISH

Home | Service Requests | Maintenance Foreman | Work Mgmt | AdHoc Query | Notifications | Dashboards | Storek

Work Order PM Checklist COMPLETED

Asset ID **ENGINE-0052**: NATURAL GAS ENGINE - COUSINS

Work Order ID PW WB DR-2018-1162

PM Checklist Items

Edit Items

	Failed	Technician	Sequence	PM Task
☐	☐	5905 ...	10	ENG-0003 - PERFORM LOCK OUT/TAG OUT PROCEDURES
☐	☐	5905 ...	20	ENG-0071 - LOCATE GREASE ZERT ON PTO, IF APPLICABLE PUMP 2 SHOTS
☐	☐	5905 ...	30	ENG-0072 - LOCATE GREASE ZERT ON DRIVE SHAFT, PUMP GREASE
☐	☐	5905 ...	50	ENG-0074 - LOCATE GREASE ZERT ON PUMP, PUMP 2-3 SHOTS GREASE
☐	☐	5905 ...	70	ENG-0075 - CHECK WATER IN BATTERIES AS NEEDED
☐	☐	5905 ...	80	ENG-0076 - CHECK BATTERY CONNECTIONS FOR CORROSION, CLEAN IF N
☐	☐	5905 ...	90	ENG-0077 - CHECK BATTERY TERMINALS FOR PROPER TIGHTNESS
☐	☐	5905 ...	100	ENG-0012 - REMOVE LOCK OUT/TAG OUT
☐	☐	5905 ...	110	ENG-0018 - RECORD READINGS

Showing 9 records

Back Save PM Checklist Report

Work Order PM Checklist COMPLETED

Asset ID **2004-EA3**: ENGINE ASSEMBLY 3 - DAVIS DIV

Work Order ID PW WB DR-2018-1197

PM Checklist Items

Edit Items

	Failed	Technician	Sequence	PM Task
☐	☐	39012 ...	10	ASSEM-0001 - CHECK WATER LEVEL IN SUMP
☐	☐	39012 ...	20	ASSEM-0004 - CHECK ENGINE OIL LEVEL
☐	☐	39012 ...	30	ASSEM-0009 - CHECK GEAR BOX OIL LEVEL
☐	☐	39012 ...	40	ASSEM-0021 - CHECK PUMP GREASE
☐	☐	39012 ...	50	ASSEM-0022 - CHECK PTO GREASE
☐	☐	39012 ...	60	ASSEM-0010 - CHECK ENGINE BATTERIES
☐	☐	39012 ...	70	ASSEM-0005 - CHECK COOLANT LEVEL IN RADIATOR
☐	☐	39012 ...	80	ASSEM-0006 - CHECK FOR LEAKS
☐	☐	39012 ...	90	ASSEM-0007 - CHECK BELTS
☐	☐	39012 ...	100	ASSEM-0008 - CHECK HOSES

Showing 18 records

Back Save PM Checklist Report

Messages Reports Welcome GWEBER Help Logoff

GMT-5

ST. CHARLES PARISH

Home | Service Requests | Maintenance Foreman | **Work Mgmt** | AdHoc Query | Notifications | Dashboards | Storek

Work Order PM Checklist Total Done: 0 of 7

Asset ID: **3502-BS ASSEMBLY**: BARSCREEN ASSEMBLY - DESTREHAN 1

Work Order ID: PW EB DR-2018-888

PM Checklist Items

Edit Items

	Failed	Technician	Sequence	PM Task
☐	☐	...	40	RAKE-0001 - PUT RAKE(S) IN HAND
☐	☐	...	50	RAKE-0002 - TEST THE FORWARD AND REVERSE BUTTONS FOR PROPER O
☐	☐	...	60	RAKE-0003 - PUSH THE FORWARD BUTTON TO START THE RAKE(S)
☐	☐	...	70	RAKE-0004 - ATTACH GREASE GUN TO GREASE ZERT PUMP 2 TO 3 SHOTS
☐	☐	...	80	RAKE-0005 - INSPECT THE PINS AND KEEPER ON THE CHAIN; REPLACE IF
☐	☐	...	90	RAKE-0006 - TURN RAKE(S) OFF AND CLEAN ALL GRASS FROM RAKE(S)
☐	☐	...	100	RAKE-0007 - TURN RAKE(S) BACK INTO AUTO AND CHECK FOR PROPER OF

Showing 7 records

Back Save PM Checklist Report

ANNUAL OIL CHANGE CHECKLIST FOR DETROITS	
TASK	**CHECK**
1. Turn of control panel switch	
2. Disconnect Battery and preform lock out / tag out	
3. Isolate fuel line if applicable (Turn off valve leading to engine)	
4. Change all fuel filters and air filters (fill fuel filters with diesel)	
5. Remove fill cap and plug from oil pan drain oil	
6. Change oil filter (fill with oil)	
7. Put the plug in	
8. Fill engine with oil (Check oil dip stick for proper level)	
9. Put oil cap on	
10. Check entire exhaust syatem connection on engine, piping & muffler	
11. Remove lock out / tag out and connect battery	
12. Start engine and let run for 1 minute	
13. Shut engine down and let set for a minute	
14. Check oil level again and add if needed (check level on dip stick)	
15. Inspect PTO for wear or adjustment (Vendor will check this)	
16. Record the hour meter reading	
17. Be sure control panel switch is turned back in auto	
18. Clean work area and dispose oil in proper place	

WORK SCOPE –ANNUAL ENGINE MAINTENANCE INSPECTIONS WAUKESHA

	Pass	Fail	Repair/Replace
1. Preform Lock out / Tag out			
2. Clean or replace air filter element			
3. Clean air cleaner pre-cleaner element			
4. Fill air starter lubricator			
5. Check cooling system levels			
6. Check and fill if needed, governor oil level			
7. Lubricate governor rod ends			
8. Inspect ignition cables – primary and secondary connections			
9. Adjust regulator			
10. Calibrate and test all shutdown controls			
11. Change quick start governor oil filter (where applicable)			
12. Exercise and inspect crankcase pressure relief valves			
13. Inspect exhaust back pressure			
14. Adjust governor – synchronizer or speed control			
15. Clean and inspect turbochargers			
16. Inspect CEC ignition timing magnets (where applicable)			
17. Test cooling fluid			
18. Remove valve covers & verify proper OEM specifications on valve train			
19. Change spark plugs			
20. Visually check rear seal on engine.			
21. Change oil and filters (We supply the oil and filters)			
22. Inspect PTO for proper adjustment and wear			
23. Record hour meter reading	Hours: _____		

FlexRake Monthly check sheet

TASK	CHECK
1. Put rake in hand	
2. Test the forward and reverse buttons for proper operation	
2. Push the forward button to start the rake	
3. Attach the grease gun to the grease zert and pump 2 to 3 shots of grease into it	
4. While rake is turning inspect the pins and keeper on the chain (replace if needed)	
5. Turn rake off and clean all grass from rake (be sure to check around the drive sprocket)	
6. Turn rake back in auto and check for proper operation	

PM Checklist Items for Work Order Number PW WB DR-2018-1201

PM Service(s): SAFETY SYS-W

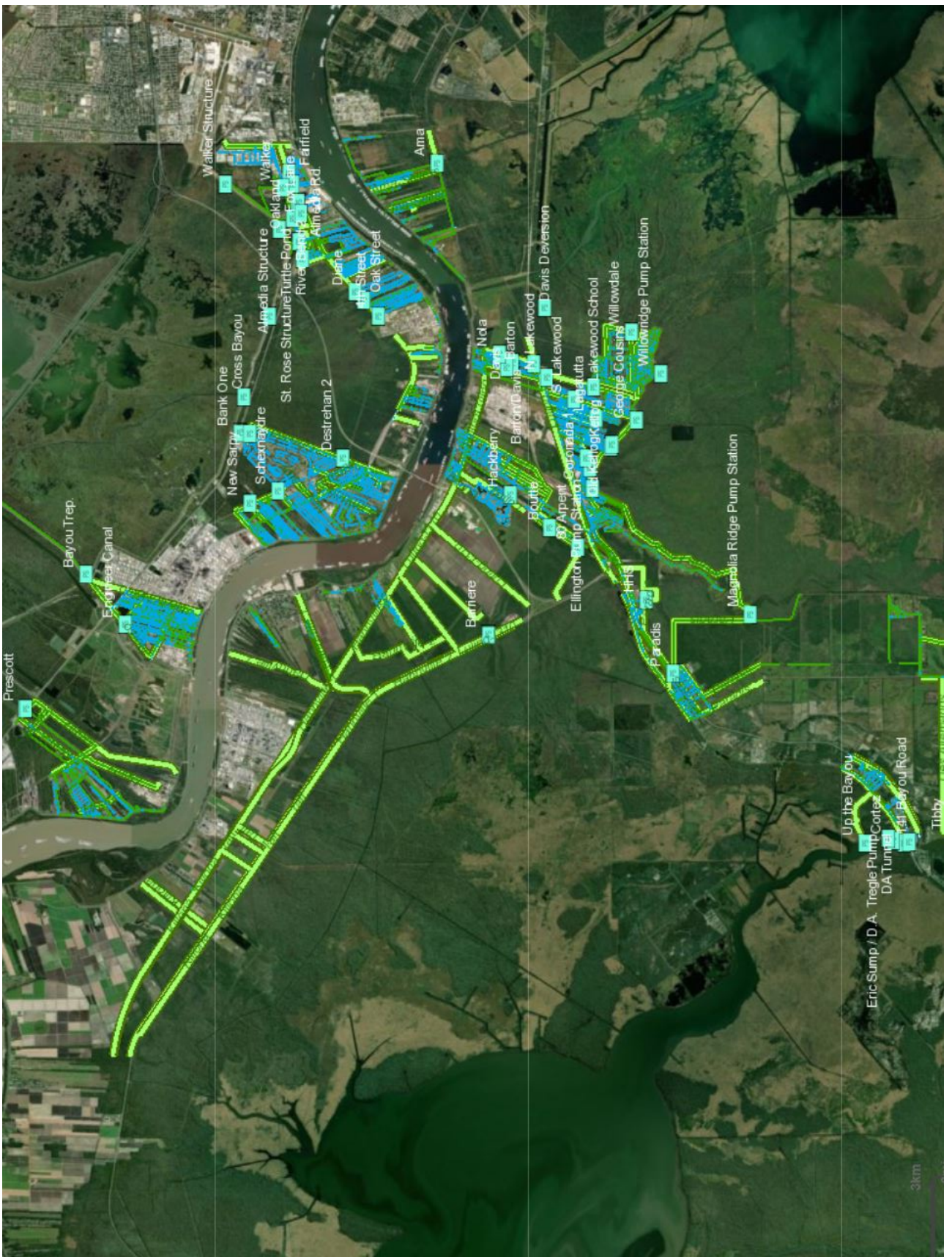
AssetWORKS

Work Order Number: PW WB DR-2018-1201 **WO Status:** PENDING **Work Order Delay:** None

Asset: 4205-SAFETY SYSTEM - 2017 SCP SAFETY SYS SAFETY SYSTEM - SUNSET **License:**

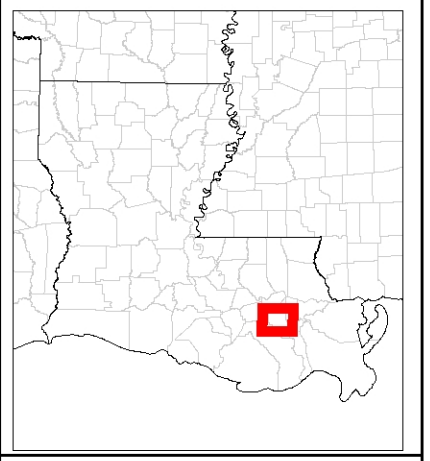
Task	Completed by Employee	N/A	Failed	SR	Comments
PM/Inspection Service: WEEKLY SAFETY SYSTEM PREVENTATIVE MAINTENANCE					**Exception PM:** No
SAFE-0001 - RUN WATER THROUGH THE SHOWER AND EYE WASH BASIN(S) FOR 2 MIN		☐	☐		
SAFE-0002 - WIPE DOWN COMPLETE EYE WASH STATION(S)		☐	☐		
SAFE-0003 - VISUALLY INSPECT FIRE EXTINGUISHER(S)		☐	☐		

Pump Station Map



ST. CHARLES PARISH

OVERVIEW MAP



Legend

- Pump Stations
- Manholes
- Catch Basins
- Pipe Inverts
- Ditches
- Culverts
- Outfall Canal

MAP SCALE

1:122,000

0 5,000 10,000 Feet

N

MAP PRODUCED BY
ST. CHARLES PARISH GEOGRAPHIC INFORMATION SYSTEMS
MAP AUTHOR: LUIS MARTINEZ
171 KELLER ST. HAHNVILLE, LA 70057
PHONE: (985) 783 - 5096 FAX (985) 783 - 5095

MAP DISCLAIMER

NORCO
MONT-
KILLONA
TAFT
HAHNVILLE
DESTREHAN
ST. ROSE
AMA
PARADIS
BOUTTE
LULING
DES ALLEMANDS
BAYOU GAUCHE
Lake Des Allemands
MISSISSI
10
61
310
3127
90

Appendix B:

Inventory of Municipal Facilities, Storm Water Pumping Stations

3127 Barriere Pump Station	1270 LA 3127 Hahnville, LA 70057
4th Street Pump Station	571 4th Street St. Rose, LA 70087
80 Arpent Pump Station	444 Tinny St. Boutte, LA 70039
A Davis Pump Station	331 Davis Dr. Luling LA 70070
Almedia Pump Station	10598 Airline Dr. St. Rose LA 70087
Almedia Structure Pump Station	10408 Airline Dr. St. Rose LA 70087
Ama Pump Station	20 PATS Ct. Ama, LA 70031
Bank One Pump Station	12509 Airline Dr. Destrehan, LA 70047
Barton Pump Station	329 Barton Ave. Luling, LA 70070
Barton Davis Pump Station	499 A Davis Dr. Luling, LA 70070
Bayou Trepagnier Pump Station	478 Lower Guide Levee Rd. Norco, LA 70079
Boutte Estates Pump Station	150 Boutte Estates Dr. Boutte, LA 70039
Coronado 1 Pump Station	1088 Primrose Dr. Luling LA 70070
Coronado 2 Pump Station	1058 Primrose Dr. Luling, LA 70070
Cortez Pump Station	192 Up The Bayou Rd. Des Allemands, LA 70030
Destrehan 1 Pump Station	197 Love Ln. Destrehan, LA 70047
Destrehan 2 Pump Station	88 Dunlieth Rd. Destrehan, LA 70047
Dianne Place Pump Station	802 St. Rose Ave. St. Rose, LA 70087
East Bank Municipal Yard	168 Troxclair Dr. New Sarpy, LA 70078
Engineer's Canal Pump Station	688 West Pine St. Norco, LA 70079
Fairfield Pump Station	498 Steve St. St. Rose LA 70087
Fox Lane Pump Station	10424 Airline Dr. St. Rose, LA 70087
George Cousin Pump Station	840 Texaco Rd. Luling, LA 70070
Hahnville High School Pump Station	128 Tiger Dr. Hahnville LA 70057
Hackberry Pump Station	501 Hackberry St. Luling, LA 70070
Lagatutta Pump Station	301 Primrose Dr. Luling, LA 70070
Magnolia Ridge Pump Station (under const.)	1660 Magnolia Ridge Rd. Boutte, LA 70039
Mimosa Pump Station	540 River Oaks Dr. Luling, LA 70070
New Sarpy Pump Station	1075 E. Harding St. New Sarpy, LA 70078
Nola Pump Station	408 NOLA St. Luling, LA 70070
North Lakewood Pump Station	106 Lakewood Dr. Luling, LA 70070
Oakland Pump Station	301 West Oakland St. New Sarpy, LA 70078
Oak St. Pump Station	821 Oak St. St. Rose, LA 70087
Old Kellogg Pump Station	523 Monsanto Ave. Luling, LA 70070
Paradis Pump Station	14799 US Hwy 90 Paradis, LA 70080
Prescott Pump Station	101 Prescott Dr. Montz, LA 70068
Riverbend 1 Pump Station	800 Riverbend Dr St. Rose, LA 70087
Riverbend 2 Pump Station	801 Riverbend Dr. St. Rose, LA 70087
Schexnaydre Pump Station	1074 E. Harding St. New Sarpy, LA 70078
South Lakewood Pump Station	188 Lakewood Dr Luling, LA 70070
Sunset Pump Station	198 Kerry's Pointe, Bayou Gauche, LA 70030
Tippy Pump Station	1057 Down the Bayou Rd. Des Allemands, LA

Turtle Pond Pump Station	167 I-310 Service Rd. St. Rose, LA 70087
Up the Bayou Pump Station	462 Up The Bayou Rd. Des Allemands, LA 70030
Walker Canal Pump Station	10344 E. Airline Dr. St. Rose, LA 70087
Walker Structure Pump Station	399 James Dr. W St. Rose, LA 70087
West Bank Municipal Yard	166 Scorpio St. Hahnville, LA 70057
Willowdale Pump Station	500 Willowdale Blvd. Luling, LA 70070
Willow Ridge Pump Station (under construction)	120 Montgomery Dr. Luling, LA 70070