

Draft Environmental Assessment  
**Industrial Park Road Floodwall and North Intracoastal  
Drainage Improvements**

Lafourche Parish

Project Number – HMGP-1603-0154

Lafourche Parish, LA

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**FEMA**

**Federal Emergency Management Agency**  
**Department of Homeland Security**  
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NO <sub>2</sub>	nitrogen dioxide
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
O <sub>3</sub>	Ozone
OSHA	Occupational Safety and Health Administration
Pb	Lead
PM <sub>2.5</sub>	Particulate Matter less than 2.5 microns
PM <sub>10</sub>	Particulate Matter less than 10 microns
RL	repetitive loss
SHPO	State Historic Preservation Office
SO <sub>2</sub>	sulfur dioxide
SRL	severe repetitive loss
SWPPP	Stormwater Pollution Prevention Plan
THPO	Tribal Historic Preservation Officer
USACE	U.S. Army Corps of Engineers
USCB	U.S. Census Bureau
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

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## 1.0 INTRODUCTION

Lafourche Parish, Louisiana has applied to the Federal Emergency Management Agency (FEMA) for Hazard Mitigation Grant Program (HMGP) regarding the proposed project described in this report. The HMGP program is authorized under Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act. FEMA provides funding under HMGP to states and communities to implement mitigation measures that reduce or eliminate the long-term risk of flood damage to structures insurable under the NFIP, including project grants for measures to reduce flood losses.

This Environmental Assessment has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, the President's Council on Environmental Quality regulations to implement NEPA (40 Code of Federal Regulations Parts 1500-1508), and FEMA's regulations implementing NEPA (44 CFR Part 10). FEMA is required to consider potential environmental impacts before funding or approving actions and projects. The purpose of this EA is to analyze the potential environmental impacts of the proposed project. FEMA will use the findings in this EA to determine whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI).

The project area is located in a primarily residential area of Larose, Lafourche Parish, LA just northwest of the intersection of Bayou Lafourche and the Gulf Intracoastal Waterway (GIWW). The study area occupies approximately 733 acres and is located in portions of Section 104, Township 17S, Range 20E and Section 62, Township 17S, Range 21E. Appendix 1 contains a map depicting the location and boundary of the proposed project area.

## 2.0 PURPOSE AND NEED

The objective of FEMA's Hazard Mitigation Grant Program (HMGP) is to reduce or eliminate claims under the NFIP for recurring flood damage. The HMGP enables FEMA to provide grants to state and local governments which are utilized to implement long-term hazard mitigation measures. The purpose of the actions proposed in this EA is to minimize the exposure of the residential properties in the project area to the damaging effects of flooding resulting from natural disasters.

The study area is situated approximately 30 miles north of the Gulf of Mexico and directly adjacent to the Gulf Intracoastal Waterway (GIWW) which makes it susceptible to strong winds, excessive rainfall, and tidal surges during tropical storm and hurricane events. As a result, historic flooding of numerous residential properties has occurred in the project area.

Industrial Park Rd. currently provides minimal tidal surge protection to the project area. Increases in water levels in the GIWW brought about by natural disasters have caused flooding of industrial and residential areas proving the existing level of protection to be inadequate.

The majority of the project area occupies 733 acres and is comprised of several residential streets which have historically experienced flooding due to poor drainage infrastructure and insufficient pump station capacities. This area spans from Bayou Lafourche northward to the 40 Arpent Canal between Industrial Park Road and Hamilton Street and has experienced chronic drainage issues resulting from minor rainfall events. During major rainfall events, many residents will experience water in their homes.

### **3.0 ALTERNATIVES**

#### **3.1 Alternative 1: No Action Alternative**

Under the “No-Action Alternative”, the proposed floodwall would not be constructed along the GIWW. According to past tidal surge data, the existing Industrial Park Rd. elevation of +2.5 ft. is not adequate in protecting the project area from flooding. It is estimated that a rise in the GIWW of +6.0 ft. is possible during a 100-year storm event.

A “Hydraulic & Hydrology Report” conducted by Angelette-Picciola, LLC in March 2013 revealed that the current forced drainage system located within the project area has the capabilities of sufficiently draining rainfall volumes associated with a 2 year storm event which equates to a peak discharge of approximately 91,000 gallons per minute. The current pump station is equipped with three 36” diameter Lo-Lift Pumps capable of only pumping 75,000 gallons per minute. Low-lying pastureland near the 40 Arpent Canal currently provides temporary retention of residual storm water. Failure to upgrade the existing pump station will result in continued flooding of homes and properties. A total of seven (7) main outfall ditches exist in the project area which were found to provide insufficient cross sectional area to allow the volumetric flow required to adequately drain rainwater from a 25 year storm into the 40 Arpent Canal. Failure to increase the flow capacity of these ditches would hinder the proposed upgraded pump station’s ability to drain the project area in a manner that would prevent flooding of properties.

#### **3.2 Alternative 2: Construction of Floodwall, Pump Station, and Drainage Improvements**

Under the Proposed Action Alternative, Lafourche Parish plans to construct a floodwall structure which will provide storm surge protection from a 100-year flood to the project area. The point of beginning of the proposed floodwall structure will be located approximately 850 ft. north-northeast of the intersection of the GIWW and Bayou Lafourche and run parallel to the western bank of the GIWW an approximate total distance of 3,510 feet. (See Appendix 1 for a map of the proposed floodwall right-of-way). Approximately 920 linear feet of Industrial Park Rd. will be elevated to a height of +7.0 ft., and the remaining 2,590 feet of the floodwall structure will be constructed with vinyl sheetpile supported by a reinforced concrete footing which will be built to an elevation of +8.0 ft.

In addition, drainage improvements are proposed for the +/- 733 acre project area which will include dredging of ditches, culvert improvements, and upgrades to the existing T-Bois Pump Station. There are currently 12 streets and approximately 464 residential dwellings located within this drainage basin. The drainage analysis conducted by Angelette-Picciola, LLC revealed that a 25 year storm event would generate a total flow of 155,000 gallons per minute. The Proposed Action Alternative would involve installation of two (2) 48” diameter pumps which would provide a pump capacity capable of sufficiently draining the area of a 25 year storm event. Reconstruction and/or enlargement of these main outfall ditches and cleaning/replacement of culverts under Hwy. 308 are also Proposed Action Alternatives for this area.

### **3.3 Other Action Alternatives**

No other action alternatives are proposed for this project.

### **3.4 Alternatives Considered but Dismissed**

Consideration was given to constructing the floodwall structure in the form of an earthen levee, but in an effort to reduce the overall footprint and minimize impacts to the industrial properties situated along the GIWW, the sheetpile alternative was chosen.

## 4.0 AFFECTED ENVIRONMENT AND POTENTIAL IMPACTS

### 4.1 Physical Resources

#### 4.1.1 Geology, Soils and Seismicity

The project area is located in the Gulf Coast Coastal Plain physiographic province. It lies along the northern side of the gulf coast geosyncline and across the axis of Mississippi structural trough. The area is characterized by off-lapping, coastward thickening wedges of fluvial, deltaic, and marine sediments.

The soils on site are classified as Cancienne silt loam (Cm), Cancienne silty clay loam (Co), Fausse-Schriever association (FA), Rita muck (Ra), and Schriever clay (Sk).

Cancienne silt loam typically has a saturated hydraulic conductivity (Ksat) of 0.20 - 0.60 in/hr, which is moderately high. The Ksat refers to the ease with which pores in a saturated soil transmit water and are expressed in terms of inches per hour. The hydrologic group for Cancienne loams is Class C, with slow infiltration rates. The drainage class is somewhat poorly drained. Depth to water table for portions of property containing the Cancienne silt loams is 18 to 48 inches below ground surface.

Cancienne silty clay loam typically has a Ksat of 0.20 - 0.60 in/hr, which is moderately high. The hydrologic group for Cancienne loams is Class C, with slow infiltration rates. The drainage class is somewhat poorly drained. Depth to water table for portions of property containing the Cancienne silt loams is 18 to 48 inches below ground surface.

Fausse-Schriever association typically has a Ksat of 0.00 - 0.06 in/hr, which is very low to moderately low. The hydrologic group for Fausse-Schriever association loams is Class D, with very slow infiltration rates. The drainage class is very poorly drained. Depth to water table for portions of property containing the Fausse-Schriever association loams is 0 inches below ground surface.

Rita Muck association typically has a Ksat of 0.00 - 0.06 in/hr, which is very low to moderately low. The hydrologic group for Rita Muck association loams is Class D, with very slow infiltration rates. The drainage class is poorly drained. Depth to water table for portions of property containing the Rita Muck association loams is 12-36 inches below ground surface.

Schriever clay typically has a Ksat of 0.00 - 0.06 in/hr, which is very low to moderately low. The hydrologic group for Schriever clay association loams is Class D, with very slow infiltration rates. The drainage class is poorly drained. Depth to water table for portions of property containing the Schriever clay association loams is 0-24 inches below ground surface.

Appendix 3 contains the soils map with a complete list of soil property data.

The U.S. Geological Survey (USGS) National Seismic Hazard Maps display earthquake ground motions for various probability levels across the United States and are applied in seismic provisions of building codes, insurance rate structures, risk assessments, and other public policy. Review of the Seismic Hazard Map for Louisiana revealed a low probability for earthquake ground motions in the project area. A seismicity map depicting activity from 1973 to present was also reviewed for Louisiana, and no record of seismic activity was found for the project area. The USGS also produced a map depicting areas of Quarternary deformation and faulting for the Gulf of Mexico Coastal Region which indicated no evidence of deformation or faulting within approximately 30 miles of the study area. Copies of the USGS maps reviewed for this EA are provided in Appendix 3.

- NO ACTION ALTERNATIVE

Under the No Action Alternative, construction activities associated with the proposed project would not be conducted. No soil disturbing activities that could potential affect the geology, soils, and seismicity would take place.

- PROPOSED ACTION ALTERNATIVE

Under the Proposed Action Alternative, construction activities associated with the construction of the floodwall will consist of trenching and excavation down to a maximum depth of 5 feet below ground surface and driving of steel sheetpile to a maximum depth of 18 feet below ground surface. Due to the anticipated depths of soil disturbing activities, no impacts to the underlying geological strata are anticipated.

Upgrades to the existing pump station will not involve installation of additional pile supported structures, therefore no impacts to the soils in that portion of the project area are anticipated. Additional drainage improvements to the existing main outfall ditches and culverts in the drainage basin will involve trenching and excavation to a maximum depth of 5 feet below ground surface.

Temporary effects to surface soils are expected in the form of erosion of exposed soils during storm events. A Storm Water Pollution Prevention Plan (SWPPP) will be prepared in accordance with the requirements of the Louisiana Pollutant Discharge Elimination System (LPDES) Storm Water General Permit for Construction Activities 5 Acres or Greater (Permit No. LAR100000) or Construction Activities Greater than 1 Acre But Less Than 5 Acres (Permit No. LAR200000). The objective of the storm water plan is the reduction or elimination of surface water pollution through implementation of Best Management Practices (BMPs). BMPs may include but are not limited to silt fencing, erosion control mats, maintaining established vegetation, and vehicle track pads.

Contaminants that could potentially affect surface soils include diesel, oil, and grease from heavy equipment and temporary storage tanks, which may be released during various stages of construction. Depending on the aggregate aboveground storage capacity at the project site and its location relative to navigable waters of the United States, a Spill Prevention Control and Countermeasure Plan (SPCC) for the job site may be required. The SPCC plan will

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establish inspection and spill response procedures to ensure that the potential for release of these products and/or effects of releases on surface soils is minimized to the best extent possible.

In the event that the contaminants listed above are released into the surface soils of the project area, affected soil will be removed and disposed of according to local, state, and federal regulations. Volumes of contaminants released in quantities that are above what are considered di minimus must be reported to the appropriate regulatory agencies. Confirmatory sampling to verify that concentrations fall below the Risk Evaluation Corrective Action Plan (RECAP) standards established by LDEQ could be required.

Correspondence was sent to the U.S. Department of Agriculture – Natural Resources Conservation Service (NRCS) on September 17, 2013 requesting review and comment on the proposed action. In a response dated September 23, 2013, the Louisiana State Conservationist stated that the proposed action is exempt from the rules and regulations of the Farmland Protection Policy Act due to its location in an urban area. NRCS predicted no impacts to any NRCS projects in the vicinity and identified no cultural resources that would be impacted. Appendix 3 contains copies of the request letters and responses.

No permanent impacts to the geology, soils, and seismicity would occur as a result of the Proposed Action Alternative.

#### 4.1.2 Air Quality

The Clean Air Act was established to protect public health and welfare nationwide, and requires EPA to establish national ambient air quality standards for certain common and widespread pollutants based on the latest science. EPA has set air quality standards for six common "criteria pollutants" which consist of particulate matter, ozone, sulfur dioxide, nitrogen dioxide, carbon monoxide, and lead. Currently Lafourche Parish is in attainment meaning that the ambient concentrations of regulated pollutants do not exceed the air quality standards established.

States are required to adopt enforceable plans to achieve and maintain air quality standards. State plans also must control emissions that drift across state lines and harm air quality in downwind states. Other key provisions are designed to minimize pollution increases from growing numbers of motor vehicles, and from new or expanded industrial plants. The law calls for new stationary sources (e.g., power plants and factories) to use the best available technology, and allows less stringent standards for existing sources.

- NO ACTION ALTERNATIVE

Under the No Action Alternative, construction activities associated with the proposed project would not be conducted. No soil disturbing activities that would contribute to releases of airborne particulates would be conducted. Also, without the installation of new pumping units, increased emissions resulting from operation of internal combustion engines would not occur.

- PROPOSED ACTION ALTERNATIVE

Under the Proposed Action Alternative, a temporary increase in airborne particulate matter (PM) would result from construction activities in the project area. Ground disturbing activities and vehicular traffic on unpaved roadways or roadways laden with dry sediment would result in the release of PM. Unpaved roads will be sprayed with water by the contractor(s) to ensure that airborne particulates are kept to a minimum.

Operation of construction equipment driven by internal combustion engines would also result in an increase in emissions of pollutants such as carbon monoxide (CO), Nitrogen Dioxide (NO<sub>2</sub>), Ozone (O<sub>3</sub>), and particulate matter (PM). Due to the anticipated duration of the project and the minimal amount of operating hours of this equipment, no significant impacts to air quality are expected. LDEQ regulates activities that generate emissions of criteria pollutants and require that an Air Quality Permit be obtained prior to commencing operations. Several sources and/or activities that produce emissions of these pollutants can qualify for an exemption from the permitting requirements. Mobile sources such as automobiles, trucks, and construction equipment are not required to obtain an air quality permit in order to operate.

Installation of larger diesel driven pumps could potentially increase emissions of CO, NO<sub>2</sub>, PM and other regulated air pollutants while in operation. However, newer diesel driven internal combustion engines are equipped with technologies which enable them to meet more stringent emission standards. In an effort to reduce emissions to the best extent possible, the pumps will at a minimum meet U.S. EPA Tier 3 emission limits. Based on 270 horsepower diesel pumps and conservative estimated annual run times of 1,000 hours each, the following total emissions are anticipated from the larger pumps being proposed:

Pollutant	Annual Emissions (tons/yr)
NO <sub>x</sub>	1.7857
CO	1.5476
PM/PM <sup>2.5</sup>	0.0893
SO <sub>2</sub>	0.5481
VOC	0.6615
Benzene	0.0018
Toluene	0.0008
Ethyl-Benz	0.0000
Xylene	0.0005
Formaldehyde	0.0022
Acetaldehyde	0.0014
Acrolein	0.0002
Napthalene	0.0002

The state of Louisiana enacted Act 547 on August 15, 2008 which provides for exemptions from permitting requirements for certain air emissions sources for which facility-wide potential emissions are less than five tons per year for each of any regulated air pollutant as defined by the Clean Air Act, 42 U.S.C. 7401 et seq., less than fifteen tons per year emitted of all such defined pollutants combined, and less than the minimum emission rate for each toxic air pollutant established pursuant to R.S. 30:2060. Due to the diesel pumps being operated intermittently throughout the year and control technologies designed to reduce emissions, it is unlikely that a total of 5 tons per year or greater will be generated from their operation. The fact that LDEQ would not require an air permit be obtained for the operation of the pump station indicates that no significant impact to air quality is anticipated.

Correspondence was sent to the Louisiana Department of Environmental Quality on December 5, 2012 requesting review and comment on the proposed action. In a response dated December 21, 2012, LDEQ stated that the agency had “no objections” to the proposed actions. Appendix 3 contains copies of the request letters and responses.

### 4.1.3 Climate Changes

Climate change is defined as “a significant and lasting change in the statistical distribution of weather patterns over periods ranging from decades to millions of years. It may be a change in average weather conditions, or in the distribution of weather around the average conditions (i.e., more or fewer extreme weather events). Climate change is caused by factors that include oceanic processes (such as oceanic circulation), biotic processes, variations in solar radiation received by Earth, plate tectonics and volcanic eruptions, and human-induced alterations of the natural world.”

The phenomenon that occurs when heat is retained by Earth’s atmosphere is referred to as the greenhouse effect. Greenhouse gases (GHGs) like water vapor (H<sub>2</sub>O), carbon dioxide (CO<sub>2</sub>), and methane (CH<sub>4</sub>) absorb energy preventing the loss of heat to space which contributes to “greenhouse effect”.

The Carbon Dioxide Equivalent is a metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential. Carbon dioxide equivalents are commonly expressed as "million metric tons of carbon dioxide equivalents (MMTCO<sub>2</sub>Eq)." The carbon dioxide equivalent for a gas is derived by multiplying the tons of the gas by the associated global warming potential (GWP). EPA has determined that any source with the potential to emit a total 25,000 tons per year of CO<sub>2</sub> equivalents has the potential to contribute to climate change.

- NO ACTION ALTERNATIVE

Under the No Action Alternative, construction activities associated with the proposed project would not be conducted. No noticeable changes to average weather conditions due to impacts to oceanic processes, biotic processes, solar radiation, plate tectonics, and volcanic eruptions would occur due to no construction activities taking place.

- PROPOSED ACTION ALTERNATIVE

Under the Proposed Action Alternative, construction activities associated with the proposed project would not cause noticeable changes to average weather conditions due to impacts to oceanic processes, biotic processes, solar radiation, plate tectonics, and volcanic eruptions. The effects of climatic conditions as a result of this project would be negligible.

Based on 270 horsepower diesel pumps and conservative estimated annual run times of 1,000 hours each, the following total greenhouse gas emissions are anticipated from the larger pumps being proposed:

Pollutant	Annual Emissions (tons/yr)	GWP	CO <sub>2</sub> Equiv (tons/yr)
CO <sub>2</sub>	303	1	303

The fact that the upgrades to the T-Bois Pump Station would not result in greenhouse gas emissions above 25,000 tons per year of CO<sub>2</sub> indicates that no significant impact to air quality is anticipated. This is an indication that EPA would not consider emissions from these sources to possess the global warming potential at levels that would contribute to the greenhouse effect and climate change.

## 4.2 Water Resources

### 4.2.1 Water Quality

EPA established the Clean Water Act (CWA) to restore and maintain the chemical, physical, and biological integrity of the nation's waters by preventing point and nonpoint pollution sources, providing assistance to publicly owned treatment works for the improvement of wastewater treatment, and maintaining the integrity of wetlands.

Pollutants regulated under the CWA consist of "priority" pollutants, which include various toxic pollutants, "conventional" pollutants, such as biochemical oxygen demand (BOD), total suspended solids (TSS), fecal coliform, oil and grease, and pH; and "non-conventional" pollutants, including any pollutant not identified as either conventional or priority. The CWA regulates both direct and indirect discharges.

Louisiana's Water Quality Regulations (LAC 33:Chapter IX) require permits for the discharge of pollutants from any point source into waters of the state of Louisiana. This surface water discharge permitting system is administered under the Louisiana Pollutant Discharge Elimination System (LPDES) program.

The point of beginning of the proposed floodwall structure will be located approximately 850 ft. north-northeast of the intersection of the GIWW and Bayou Lafourche and run parallel to the western bank of the GIWW an approximate total distance of 3,510 feet. (See Appendix 1 for a map of the proposed floodwall right-of-way). Approximately 920 linear feet of the floodwall will extend northward from the southernmost point and will consist of a portion of Industrial Park Rd. being elevated to a height of +7.0 ft. The remaining 2,590 feet of the floodwall structure will be constructed with vinyl sheetpile material supported by a reinforced concrete footing. Construction activities associated with the floodwall structure will be conducted a minimum distance of approximately 150 linear feet from the nearest receiving waterbody (GIWW).

The drainage area which contains the main outfall ditches, residential properties, and pump station site occupies an approximately 733 acre area extending from the intersection of Bayou Lafourche and the GIWW eastward and northward approximate distances of 3,360 feet and 6,600 feet respectively. The path of discharge for the drainage basin under consideration is outfall ditches into the 40 Arpent Canal and thence into the GIWW. The main outfall ditches will be increased in capacity by cleaning and grubbing. The culvert flow under Highway 308 will be increased by adding one culvert. The T-Bois pump station capacity will be increased to 150,000 GPM (Gallons per Minute).

The listing of water bodies which fail to meet water quality standards is required by section 303(d) of the Clean Water Act. EPA regularly works with states and local governments to reduce pollution, protect public health and provide for healthy aquatic life in our nation's waters. Bayou Lafourche from Donaldsonville to the GIWW at Larose is listed as Subsegment 020401 and is designated for Primary Contact Recreation, Secondary Contact Recreation, fish and Wildlife Propagation, and Drinking Water Supply. The GIWW from Larose to Bayou Villars and Bayou Barataria (Estuarine) is listed as Subsegment 020801 and designated for Primary Contact

Recreation, Secondary Contact Recreation, and fish and Wildlife Propagation. Subsegment 020401 is listed as being impaired for Fecal Coliforms, and Non-native aquatic plants. Subsegment 020801 is listed as being impaired for turbidity.

▪ NO ACTION ALTERNATIVE

Under the No Action Alternative, no construction activities would occur resulting in zero impacts to the surface waters directly adjacent to and downstream of the project areas.

▪ PROPOSED ACTION ALTERNATIVE

Under the Proposed Action Alternative, temporary effects on surface waters directly adjacent to and downstream of the project area could potentially occur.

The primary pollutant expected to potentially impact storm water runoff from the construction activity is suspended sediments from soil erosion. A SWPPP will be prepared in accordance with the requirements of the Louisiana Pollutant Discharge Elimination System (LPDES) Storm Water General Permit for Construction Activities 5 Acres or Greater (Permit No. LAR100000) or Construction Activities Greater than 1 Acre But Less Than 5 Acres (Permit No. LAR200000). The objective of the storm water plan is the reduction or elimination of surface water pollution through implementation of Best Management Practices (BMPs). BMP's may include but are not limited to silt fencing, erosion control mats, maintaining established vegetation, and vehicle track pads. This will also ensure that the nearby receiving stream currently listed as being impaired for turbidity is not affected.

Other contaminants that could potentially affect surface soils include diesel, oils, and grease from heavy equipment and temporary storage tanks which may be stored onsite during various stages of construction. Depending on the aggregate aboveground storage capacity of the project site and the project's location relative to navigable waters of the United States, a Spill Prevention Control and Countermeasure Plan (SPCC) for the job site may be required. The SPCC plan will establish inspection and spill response procedures to ensure that the potential for release of these products and/or effects of releases to surface waters is minimized to the best extent possible.

No sanitary wastewater will be discharged from the construction areas. Portable sanitary units will temporarily be placed on site and waste will be removed from the property by licensed septage disposal contractors. This will ensure that the nearby receiving stream currently listed as being impaired for Fecal Coliforms is not affected.

Correspondence was sent to the Louisiana Department of Environmental Quality on December 5, 2012 requesting review and comment on the proposed action. In a response dated December 21, 2012, LDEQ stated that the agency had "no objections" to the proposed actions. Appendix 4 contains copies of the request letters and responses.

#### 4.2.2 Wetlands

Jurisdictional wetlands are regulated by the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act. Federal manuals have been established to classify wetlands based on the presence of three criteria which include hydrology, soils, and hydrophytic vegetation.

According to the U.S. Fish & Wildlife Service National Wetlands Inventory (NWI), a total of 164 acres of “Freshwater Forested/shrub” wetlands are located within the boundaries of the 764 acre drainage basin. In addition, a total of 7.63 acres of “Freshwater Emergent” wetlands are located within this area. The NWI map generated for the study area is located in Appendix 4.

- NO ACTION ALTERNATIVE

Under the No Action Alternative, no impacts to jurisdictional wetland areas within the proposed project footprint would occur.

- PROPOSED ACTION ALTERNATIVE

According to the NWI, no wetlands are located within the project area for the proposed floodwall

The NWI maps indicate that portions of the main outfall ditches to be improved within the drainage basin are located within jurisdictional wetland areas.

Correspondence was sent to the USACE Regulatory Branch on September 17, 2013 requesting review and comment on the proposed action. A Solicitation of Views dated November 26, 2013 was received from the USACE which stated that they do not anticipate any adverse impacts to any USACE projects. The solicitation of views also stated that a permit must be obtained from the South Lafourche Levee District for any work within 300 feet of a federal flood control structure such as a floodwall. The USACE also utilized recent maps, aerial photography, and local soil surveys to determine that wetlands could potentially be present in the project area. The USACE stated in the response that Department of the Army permits are required prior to the deposition or redistribution of dredged or fill material into wetlands that are waters of the United States.

The proposed action does not include the deposition and redistribution of dredge or fill material into wetland areas. The spoils obtained from the main outfall drainage ditch improvements conducted in areas located within the wetlands depicted on the NWI maps will be transported offsite and deposited within a non-wetland area, see site map of dredge soil deposits in Appendix 1 – site maps. This will serve as a mitigating action to avoid deposition and redistribution of dredge or fill material into wetland areas and eliminating the need for a USACE Section 404 permit.

### 4.2.3 Floodplains

FEMA has delineated both the special hazard areas and the risk premium zones applicable to communities participating in the National Flood Insurance Program (NFIP) through its Flood Insurance Rate Maps (FIRM). The Base Flood Elevations (BFE's) are depicted on the FIRMs and represent the elevation to which floodwater is anticipated to rise during the base flood. FIRMs also depict floodplain boundaries within a given area which are classified based on 1 percent and 0.2 percent annual flood chance as well as minimal flood risk areas. Flood insurance premiums are dependent upon a structures elevation in comparison to the BFE and floodplains for that area.

The digital FIRM database for Lafourche Parish was reviewed for the project area. The project area was found to fall within the boundaries of FIRM 22057C0510E (Effective July 30, 2008). According to the digital FIRM, the project area falls entirely within "Zone AE" which falls within the 100 year floodplain (1% annual flood chance). The base flood elevation established for the portion of project area along the GIWW to be occupied by the proposed floodwall and the majority of the main outfall ditch locations to be improved is +7 feet. The northwestern corner of the project area which is the site of the proposed pump station upgrades and a portion of the main outfall ditch drainage improvements was found to have a base flood elevation of +8 feet.

The FIRM for the study area is located in Appendix 4.

- NO ACTION ALTERNATIVE

Under the No Action Alternative, no impacts to the floodplain would occur due to no construction activities being conducted. A "Hydraulic & Hydrology Report" conducted by Angelette-Picciola, LLC in March 2013 revealed that the current forced drainage system located within the project area has the capabilities of sufficiently draining rainfall volumes associated with a 2 year storm event which equates to a peak discharge of approximately 91,000 gallon per minute. The current pump station is equipped with three 36" diameter Lo-Lift Pumps capable of only pumping 75,000 gallons per minute. Low-lying pastureland near the 40 Arpent Canal currently provides temporary retention of residual storm water. Failure to upgrade the existing pump station will result in continued flooding of homes and properties. A total of seven (7) main outfall ditches exist in the project area which were found to provide insufficient cross sectional area to allow the volumetric flow required to adequately drain rainwater from a 25 year storm into the 40 Arpent Canal. Failure to increase the flow capacity of these ditches would hinder the proposed upgraded pump station's ability to drain the project area in a manner that would prevent flooding of properties.

- PROPOSED ACTION ALTERNATIVE

The "Hydraulic & Hydrology Report" conducted by Angelette-Picciola, LLC in March 2013 determined that the solution to the drainage problem involves increasing Main Outfall Ditch drainage capacities, increasing culvert flows under Hwy. 308, replacing side drains along

Hwy. 308, and increasing pump capacity of the existing T-Bois pump station to approximately 150,000 gallons per minute. The report also proposed that flooding related to tidal influence within the study area could be corrected by the construction of the floodwall to elevations consistent with the base flood elevations established for the area.

Due to the entire project area being located within the 100-year floodplain, the proposed action alternative will result in construction activities within this floodplain. As mentioned earlier in this section, the proposed floodwall will be constructed in an area determined to have a base flood elevation of +7 feet. The floodwall will be constructed to a final elevation of +8 feet for portions where sheetpile is proposed and +7 feet for portions where Industrial Park Rd. is to be elevated. It is assumed that the addition of this structure will protect the properties on the protected side of the floodwall from a 100-year flood event and thus eliminating the project area's vulnerability to flood hazards caused by tidal surge from the GIWW.

The proposed pump station and drainage improvements within the project area are intended to increase the overall drainage efficiency of the area. No adverse effects to the floodplain are expected with respect to altering the base flood elevations or increases in flood hazards to the existing structures within the drainage basin. The proposed action will allow the existing drainage infrastructure to more efficiently transport rainfall associated with storm events to the 40 Arpent Canal and ultimately into the GIWW.

By lowering the probability of damage to existing properties resulting from flooding, the Proposed Action Alternative is expected to have positive impacts to the floodplain.

Executive Order 11988 (Floodplain Management) requires federal agencies "to avoid to the extent possible the long and short term adverse impacts associated with the occupancy and modification of the floodplain and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative." FEMA's implementing regulations are at 44 CFR Part 9, which includes an eight step decision making process for compliance with this part.

This eight step process is applied to the proposed project. The proposed project area is within the 100-year floodplain of The Gulf Intracoastal Waterway (GIWW) and 40 Arpent Canal. The steps taken during the the decision making process are as follows:

1. The entire project area will be located within the 100-year floodplain (according to Flood Insurance Rate Maps #22057C0510E Effective July 30, 2008).
2. A public notice concerning the Industrial Park Floodwall & North Intracoastal Drainage Improvements will be published in the Lafourche Gazette newspaper together with the Notice of Availability of the draft NEPA document.
3. Alternatives to locating the existing pump station outside of the floodplain were determined to be infeasible. Drainage system alternatives to the main outfall ditch system would not have a lower impact on floodplains.

Alternatives to the proposed main outfall ditch system were evaluated and determined to be infeasible. Drainage system alternatives to the main outfall ditch system would not have a lower impact on floodplains.

4. The Industrial Park Floodwall & North Intracoastal Drainage Improvements would not facilitate development in the 100-year floodplain and will not facilitate development in the 500-year floodplain to any greater degree than in non-floodplain areas of the community.
5. The Industrial Park Floodwall & North Intracoastal Drainage Improvements is designed to minimize floodplain impacts. Where facilities are required to serve existing development located within floodplains, facilities are elevated to the extent feasible.
6. The proposed action will not facilitate development in the floodplains to any greater degree than non-floodplain areas of the community. The project will not aggravate the current flood hazard because the overall intent is to increase drainage efficiency and provide tidal surge protection to the project area. Therefore, it is still practicable to construct the proposed project within the floodplain. Alternatives consisting of locating the project outside the floodplain or taking “no action” are not practicable.
7. After evaluating alternatives, including impacts and mitigation opportunities the Parish determined that the proposed project is the most practical alternative.
8. The proposed Industrial Park Floodwall & North Intracoastal Drainage Improvements will be constructed in accordance with applicable floodplain development requirements.

Correspondence was sent to the Lafourche Parish Government, Floodplain Manager on December 5, 2012 requesting review and comment on the proposed action. The Floodplain Manager issued a response on January 22, 2013 indicating that the department had “No Objection to the project as proposed”. A copy of the response letter is included in Appendix 4. A more detailed version of the eight step process is included in Appendix 9.

### 4.3 Coastal Resources

The Lafourche Parish Coastal Zone Management is established in the Parish Code of Ordinances Section 19:401A and is intended to ensure the following is taken into consideration with regards to projects in the Coastal Zone:

1. Recognition of the value in natural coastal ecosystems.
  - Protect, restore and enhance the coastal zone as a natural storm barrier, flood control system, and water infiltration system;
  - Protect, restore and enhance the coastal zone as a habitat for wildlife, an aquatic resource, an aesthetic resource, a parish, state and national resource, and a historic cultural resource.
  - Protect, restore and enhance the coastal zone as a legacy to future generations.
2. Recognition of the value in coastal-dependent commercial activity.
  - Promote coordinated development within the coastal zone.
  - Promote conflict resolution arising from multiple, competing uses.
  - Promote recreational uses (respect private property) and monitor public access within the coastal zone.
3. Balance of these values in Lafourche Parish to allow current and future residents the opportunity to enjoy the multiple benefits and cultural values associated with a healthy coastal zone.
4. Foster the public safety, health and welfare of Lafourche Parish residents.

The Louisiana Coastal Zone Boundary was most recently updated in 2012 and encompasses a total of 20 coastal parishes including Lafourche. The map located in Appendix 5 depicts the location of the Louisiana Coastal Zone Boundary.

- NO ACTION ALTERNATIVE

Under the No Action Alternative, no impacts to coastal resources area within the proposed project footprint would occur.

- PROPOSED ACTION ALTERNATIVE

Under the Proposed Action Alternative impacts to coastal resources are expected to be minimal particularly with regards to natural storm barriers, wildlife habitat, aquatic resources, aesthetic value, and quality of life for future generations.

Correspondence was sent to the Louisiana Department of Natural Resources (LDNR) Office of Coastal Management Permits & Mitigation Division on December 5, 2012 requesting review and comment on the proposed action. The Office of Coastal Management issued a response on December 11, 2012 indicating that the agency has determined that “any and all federal financial assistance is consistent with the Louisiana Coastal Resources Program”. A copy of the Office of Coastal Management’s “Letter of General Consistency Concurrence” was also provided stating that federal agencies should no longer require applicants for financial assistance to seek the OCM’s approval for that assistance.

KEE Environmental Services, LLC sent a correspondence to the Louisiana Department of Natural Resources OCM on September 17, 2013 requesting review and comment on the proposed action. A Solicitation of Views response was sent to KEE Environmental Services, LLC on September 25, 2013 by The Louisiana Department of Natural Resources OCM. The response stated that project area was found to be located within the boundaries of the Coastal Zone and that submittal of a Coastal Use Permit (CUP) Application would be necessary in order to obtain any Coastal Use Permits that may be required for the Proposed Action.

The CUP process is part of the Louisiana Coastal Resources Program which has been established to preserve, restore, and enhance Louisiana's valuable coastal resources. The guidelines of the permit have been established to ensure that development taking place within the Coastal Zone can be accomplished with the greatest benefit and the least amount of negative impacts. CUP applications must be submitted for projects that could impact coastal waters and involve dredging and filling, water control structures, bulkheads, oil and gas facilities, marina or residential development. Permit Applications are sent to the OCM through the joint application system which allows comments to be solicited from multiple regulatory agencies from a single submittal. The impacts to coastal waters caused by the proposed project will dictate conditions of the CUP. Mitigation of wetland areas is a potential "mitigating action" required by the CUP to offset impacts.

Appendix 5 contains copies of the request letters and responses.

#### 4.4 Biological Resources

##### 4.4.1 Threatened and Endangered Species and Critical Habitat

In 1973, Congress passed the Endangered Species Act, recognizing that “various species of fish, wildlife, and plants in the United States have been rendered extinct as a consequence of economic growth and development untempered by adequate concern and conservation, other species of fish, wildlife and plants have been so depleted in numbers that they are in danger of or threatened with extinction, and these species of fish, wildlife, and plants are of esthetic, ecological, educational, historical, recreational, and scientific value to the United States and its people. The intended purpose of the Act is to provide a means by which the ecosystems upon which endangered and threatened species depend may be conserved and to provide a program for the conservation of those species”.

According to the U.S. Fish and Wildlife Service (USFWS) Critical Habitat Mapper, there is no designated critical habitat in the project area. USFWS lists the following threatened and endangered species as potentially occurring in Lafourche Parish:

Parish	Group	Inventory Name	Status
Lafourche	Mammal	Manatee, West Indian	Endangered
	Mammal	Louisiana black bear	Threatened
	Bird	Piping Plover	Threatened
	Bird	Red knot	Proposed Threatened
	Fish	Sturgeon, Gulf	Threatened
	Reptile	Turtle, Green Sea	Threatened
	Reptile	Turtle, Hawksbill	Endangered
	Reptile	Turtle, Kemp’s Ridley Sea	Endangered
	Reptile	Turtle, Leatherback Sea	Endangered
	Reptile	Turtle, Loggerhead	Threatened

- NO ACTION ALTERNATIVE

Under the No Action Alternative, no impacts to threatened and endangered species and/or critical habitat would occur due to construction activities not being conducted.

- PROPOSED ACTION ALTERNATIVE

Under the Proposed Action Alternative, an elongated tract situated in a developed area occupying approximately 4 acres will be disturbed during the construction of the floodwall. Development in the project area consists primarily of industrial facilities which are not well suited to support endangered species and/or critical habitats.

Preventative measures discussed in earlier sections will be implemented throughout the duration of the construction activities to ensure that the quality of surface water and aquatic species habitat is not compromised.

Correspondence was sent to the U.S. Fish and Wildlife Service on September 10, 2013 requesting review and comment on the proposed action. In a response dated September 12, 2013, the USFWS stated that the project was “reviewed for the effects to Federal trust resources under our jurisdiction and currently protected by the Endangered Species Act of 1973” and the “project, as proposed will have no effect on those resources”. FEMA has determined that the proposed action will have no effect on threatened or endangered species. Appendix 6 contains copies of the request letters and responses.

#### **4.4.2 Wildlife and Fish**

The Louisiana Department of Wildlife and Fisheries (LDWF) is the state agency responsible for management of the state's renewable natural resources including all wildlife and all aquatic life. The agency's objective is to manage, conserve, and promote wise utilization of Louisiana's renewable fish and wildlife resources and their supporting habitats through replenishment, protection, enhancement, research, development, and education for the social and economic benefit of current and future generations, to provide opportunities for knowledge of and use and enjoyment of these resources, and to promote a safe and healthy environment for the users of the resources.

In 1970, the Louisiana Legislature created the Louisiana Natural and Scenic Rivers System. The System was developed for the purpose of preserving, protecting, developing, reclaiming, and enhancing the wilderness qualities, scenic beauties, and ecological regimes of certain free-flowing Louisiana streams. A review of the “Louisiana Natural and Scenic Rivers Descriptions and Map” revealed that the waterbodies downstream of the project area are not classified as “scenic” by the LDWF). A copy of the Louisiana Natural and Scenic Rivers Descriptions and Map is included in Appendix 6.

- NO ACTION ALTERNATIVE

Under the No Action Alternative, no impacts to threatened and endangered species, critical habitat, or scenic streams would occur due to construction activities not being conducted.

- PROPOSED ACTION ALTERNATIVE

Under the Proposed Action Alternative, an elongated tract situated in a developed area occupying approximately 4 acres will be disturbed during the construction of the floodwall. Development in the project area consists primarily of industrial facilities which are not well suited to support critical wildlife habitats.

Preventative measures discussed in earlier sections will be implemented throughout the duration of the construction activities to ensure the quality of surface water and aquatic species habitat is not compromised.

The overall intent of the Proposed Action Alternative is to provide the project area with protection from flooding resulting from excessive rainfall and tidal surges occurring during tropical storm and hurricane events. Reducing the area's exposure to these disasters will eliminate the risks to wildlife species seeking refuge in developed areas from rising water.

Displacement of wildlife due to standing floodwater can cause stress and occasional fatalities to species inhabiting nearby undeveloped areas.

Correspondence was sent to the Louisiana Department of Wildlife & Fisheries (LDWF) on December 5, 2012 requesting review and comment on the proposed action. In a response dated January 3, 2013, LDWF stated that there would be “no objection” to the proposed action. Appendix 6 contains copies of the request letters and responses.

## 4.5 Cultural Resources

The National Historic Preservation Act of 1966, Section 106, requires that federal agencies or their applicants take into account the effects of their undertakings on historic structural and archeological properties. The Section 106 review process must be completed prior to the spending of federal funds for any project that has the potential to affect historic properties that are listed in or eligible for listing in the National Register of Historic Places (NRHP).

The Louisiana Office of Cultural Development is given the role of the State Historic Preservation Office (SHPO). Within the SHPO there are two offices that conduct Section 106 reviews on a joint basis (Division of Archaeology and Division of Historic Preservation). The potential for Cultural Resources located within or affected by the proposed actions was evaluated through the Section 106 process by way of a conducting a Phase I Cultural Resources Survey reviewed and approved by the SHPO.

FEMA has entered into the “Louisiana HMGP Programmatic Agreement” with the Louisiana SHPO of the Department of Culture, Recreation, and Tourism; Alabama-Coushatta Tribe of Texas; Chitimacha Tribe of Louisiana; Choctaw Nation of Oklahoma; Jena Band of Choctaw Indians; Mississippi Band of Choctaw Indians; Seminole Tribe of Florida; and The Advisory Council on Historic Preservation (Louisiana HMGP PA) in order to fulfill its section 106 responsibilities for the HMGP. Cultural resources are identified and evaluated as part of this agreement.

### 4.5.1 Historic Properties

#### ▪ NO ACTION ALTERNATIVE

Under the No Action Alternative, no impacts to archeological sites and/or registered historic properties would occur due to construction activities not being conducted.

#### ▪ PROPOSED ACTION ALTERNATIVE

Under the Proposed Action Alternative, no impacts to archeological sites and/or registered historic properties are anticipated.

A review of both the NRHP information listed on the National Park Service’s web page and the Louisiana NRHP web page revealed no records of historic places located in proximity to the facility. Appendix 7 contains the electronic listing of the NRHP found in Lafourche Parish, Louisiana, as maintained by the National Park Service on its National Register Information System (NRIS).

Correspondence was sent to the Louisiana State Historic Preservation Office on December 5, 2012 requesting review and comment on the proposed action. In a response dated January 9, 2013, the SHPO stated that “No known historic properties will be affected by this undertaking”. Appendix 7 contains copies of the request letters and responses.

Consultation with the FEMA Region VI Environmental and Historic Preservation Team Leader returned a response dated July 12, 2013 indicating that the proposed floodwall crosses a recorded archaeological site of unknown NRHP eligibility. The site is listed in the State of Louisiana site files and described as an “earth midden buried by about 3’ of levee from Bayou Lafourche.” Geographical information on the listed site revealed that it is situated along the proposed floodwall right-of-way. As a result of this listing, a Phase I Cultural Resources Survey was required and was conducted by R.C. Goodwin & Associates, Inc. in accordance to the Louisiana Division of Archeology’s standards for fieldwork and reporting.

The Phase I Cultural Resources Survey performed by R.C. Goodwin & Associates revealed no evidence of any archeological deposits within the proposed floodwall right-of-way. No impacts to previously recorded historic properties are anticipated as a result of the proposed Action Alternative.

The Phase I Cultural Resources Survey was submitted to the Louisiana SHPO Division of Archaeology for review, and a response dated December 13, 2013 stated that SHPO had no comments to offer. The response also stated that the Division of Archaeology concurred that the structures identified within the project area are not eligible for nomination to the National Register of Historic Places, and that no historic properties will be impacted by the project.

In the event that archeological deposits, including any Native American pottery, stone tools, bones, or human remains, are uncovered, the project shall be halted and the applicant shall stop all work immediately in the vicinity of the discovery and take reasonable measures to avoid or minimize harm to the finds. All archeological findings will be secured and access to the sensitive area restricted. The applicant will inform FEMA immediately and FEMA will consult the SHPO or Tribes and work in sensitive areas cannot resume until consultation is completed and appropriate measures have been taken to ensure that the project is in compliance with the NHPA.

#### **4.5.2 American Indian/Native Hawaiian/Native Alaskan Culturally Significant Sites**

In addition to protecting historical and archeological properties, the National Historic Preservation Act of 1966 requires federal agencies or their applicants to take into account the effects of their undertakings on historic properties of traditional religious and cultural importance to Indian tribes, Native Alaskans, and Native Hawaiian organizations.

- NO ACTION ALTERNATIVE

Under the No Action Alternative, no impacts to sites of cultural or religious importance to tribes would occur due to construction activities not being conducted.

- PROPOSED ACTION ALTERNATIVE

Under the Proposed Action Alternative, no impacts to sites of cultural or religious importance to tribes are anticipated.

In accordance with the Louisiana HMGP Programmatic Agreement dated January 31, 2011, FEMA submitted copies of the Phase I Cultural Resources Survey to tribal organizations who could potentially experience impacts to properties as a result of the proposed action. Over the course of the 30 day review period (November 5, 2013-December 5, 2013), no comments were received from any tribal nations regarding the proposed action.

## 4.6 Socioeconomic Resources

### 4.6.1 Environmental Justice

Executive Order 12898 (U.S. Department of Housing and Urban Development) states that each federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.

According to demographic data available online for the city of Larose (2010 US Census Bureau), Larose has an approximate population of 7,400 people. Larose has a total land area of 10.9 square miles with a population density of 681.1 people per square mile. Using this population density, it is estimated that approximately +/- 780 people reside within the +/- 733 acre project area.

The median household income level in Larose is \$46,549 with approximately 13.2% falling below the poverty line. It should be noted that the statewide median household income of Louisiana is \$44,086. The race demographics of Larose can be best broken down as depicted in the table below.

Race	% Residing in Larose
White	79.9
Hispanic or Latino	7.7
African American	5.0.
American Indian or Alaska Native	3.8
Asian	2.1
Two or More	1.9

- NO ACTION ALTERNATIVE

Under the No Action Alternative, improvements to the drainage of the project area and construction of the floodwall would not take place leaving all races and income levels currently residing in this area equally vulnerable to the hazards they are currently exposed to.

- PROPOSED ACTION ALTERNATIVE

Under the Proposed Action Alternative, all residents located within the project area would benefit from a decrease in the probability of flood damage as a result of the drainage improvements and floodwall structure. Socioeconomic factors such as demographics and income levels did not dictate the manner in which the engineering design was conducted in any way.

All construction activities will be conducted within existing right-of-ways, and therefore no low income or minority families would be displaced.

Appendix 8 contains documentation supporting statistics presented in this section.

The Proposed Action Alternative is expected to have a positive impact on Environmental Justice within the community occupying the project area due to added protection from natural disasters that will be experienced by all households. The demographic populations of the project area estimated in this section demonstrate that the proposed activities would not impact a disproportionate number of minority or low income residents.

#### **4.6.2 Hazardous Material**

A material can be defined as hazardous if it meets the established criteria for reactivity, corrosivity, toxicity, and ignitibility. The federal program established to regulate hazardous materials is the Comprehensive Environmental Response, Compensation Act (CERCLA) and the Resource Conservation and Recovery Act (RCRA). Management of hazardous materials and waste is regulated on the state level by the LDEQ. Releases of hazardous materials can result in contamination of surface soils, surface water, and groundwater.

- NO ACTION ALTERNATIVE

Under the No Action Alternative, construction activities would not be conducted, thus no impacts to the project area would occur from the handling, storage, or release of hazardous materials on site.

- PROPOSED ACTION ALTERNATIVE

Under the Proposed Action Alternative, handling and storage of hazardous materials is not expected to occur. Materials such as diesel fuel, lubricating oils, and hydraulic oils are not classified as hazardous, but a release of these substances could cause adverse impacts to the surface soils, groundwater, and surface water. These petroleum based products will be utilized for the operation of construction equipment on site.

The existing 2,000 gallon aboveground diesel storage tank associated with the T-Bois Pump Station will remain in place following the addition of larger pumping units. No additional storage of fuel will be necessary as a result of the upgrades; therefore no increase in potential for release of petroleum based products will occur.

In the event that the contaminants listed above are released into the surface soils of the project area, affected soil will be removed and disposed of according to local, state, and federal regulations. If volumes of contaminants are released in quantities that are above what could be considered de minimus, the appropriate notifications to regulatory agencies will be made. Contaminated material will be removed and disposed of according to local, state, and federal regulations, and confirmatory sampling to verify that concentrations fall below the Risk Evaluation Corrective Action Plan (RECAP) standards established by LDEQ could be required.

Depending on the aggregate aboveground storage capacity of fuels and oils at the project site and the project's location relative to navigable waters of the United States, a Spill Prevention Control and Countermeasure Plan (SPCC) for the job site may be required. The SPCC plan will establish inspection and spill response procedures to ensure that the potential for release of these products and/or effects of releases on surface soils is minimized to the best extent possible. Unusable equipment, debris and material shall be disposed of in an approved manner and location. In the event significant items (or evidence thereof) are discovered during implementation of the project, applicant shall handle, manage, and dispose of petroleum products, hazardous materials and toxic waste in accordance to the requirements and to the satisfaction of the governing local, state and federal agencies.

One building is currently located within the proposed floodwall right-of-way and will be demolished as part of the proposed project. It is a wood frame, tin clad, storage building, constructed circa 1950. Asbestos containing materials are not expected to be present due to lack of materials typically found to contain asbestos. A site visit by the contractor for the parish confirmed there are no interior finishes, i.e., floor, tiles, ceiling, insulation etc. and therefore a full asbestos survey was not conducted. If any asbestos containing materials, lead based paint and/or other hazardous materials are found during demolition, the applicant must comply with all federal, state and local abatement and disposal requirements under the National Emissions Standards for Hazardous Air Pollutants (NESHAP).

The Proposed Action Alternative is not likely to cause impacts to the project area with regards to Hazardous Materials due to the preventative measures being taken throughout the duration of construction activities and related to permanent structures constructed as a part of this project.

#### **4.6.3 Noise**

The presence of unwanted sound is typically referred to as "noise". Background noise is the "normal" noise level experienced in the local environment. EPA's Noise Control Act of 1972 establishes a national policy to promote an environment for all Americans free from noise that jeopardizes their health and welfare. The Act also serves to establish a means for effective coordination of Federal research and activities in noise control, authorize the establishment of Federal noise emission standards for products distributed in commerce; and provide information to the public respecting the noise emission and noise reduction characteristics of such products. EPA has given the authority to regulate noise pollution to the local and state governments.

Lafourche Parish Ordinance 4904 prohibits "unnecessary, excessive and annoying noises from all sources subject to its police power". The ordinance restricts noise levels above 50 dBA related to residential, commercial, and industrial land use. However, temporary construction activities are exempt from this decibel restriction. The ordinance prohibits the operation of construction and demolition equipment within 300 feet of any residential or noise sensitive area during the hours of 9:00 p.m. til 7:00 a.m. on weekdays and Saturdays and 9:00 p.m. til 8:00 a.m. on Sundays and Holidays.

- NO ACTION ALTERNATIVE

Under the No Action Alternative, no increase in noise levels would occur due to construction activities not being conducted.

- PROPOSED ACTION ALTERNATIVE

Under the Proposed Action Alternative, temporary increases in noise levels would occur periodically throughout the duration of the proposed construction activities. Construction equipment such as earth moving equipment, large trucks, pile drivers, etc. are expected to cause increases in normal background noise levels of the project area. In an effort to reduce the nuisance levels of this additional noise, contractors will operate this equipment outside of the restricted hours established in the Lafourche Parish noise ordinance.

Noise increases as a result of the operation of larger diesel driven pumping units are expected to be minimal. Normal operating volume of the proposed pump station will be comparable to the current pump configuration due to newer engines being equipped with better noise attenuation technologies. The pump station is located an approximate distance of 315 feet from the nearest residence; therefore no adverse impacts to the ambient sound quality of the nearby residents is anticipated.

Although temporary increases in noise levels are expected to result from the Proposed Action Alternative, no long term impacts to ambient sound quality is expected.

#### **4.6.4 Traffic**

The transportation infrastructure within the project area is primarily comprised of a network of residential streets and Industrial Park Rd. which runs along Bayou Lafourche in an East to West direction and turns northward along the GIWW.

Traffic data in this area was compiled by South Central Planning and Development Commission and provided by Angelette-Picciola, LLC for the Hydraulic & Hydrology Report conducted in March 2013. Actual traffic counts were taken on Hamilton St., Louis St., Le Village Dr., and at the beginning and end of Industrial Park Ave. which was found to be subject to the largest daily volume of vehicular traffic. There are several dead end, side streets along Industrial Park Rd., that lie between the two “actual” traffic counts. The remainder of the traffic must flow to these remaining dead end, side streets; namely Buchannon St., Chester Lee St., Gemini St., Pasture Rd. and Loupe St.

- NO ACTION ALTERNATIVE

Under the No Action Alternative, no impacts to the existing traffic volumes would occur due to no construction activities being conducted.

- PROPOSED ACTION ALTERNATIVE

Under the Proposed Action Alternative, temporary increases in vehicular traffic volume would occur throughout the duration of the proposed construction activities. Overall daily traffic volume on Industrial Park Rd. would likely increase as a result of construction materials, equipment, and personnel being transported to and from the project sites.

Construction activities associated with elevating Industrial Park Rd. will cause temporary lane closures of a 920 feet portion of the road. Traffic detours resulting from temporary road closures could increase the volume of local traffic on residential streets. Temporary traffic delays will occur on this section of Industrial Park Rd. due to one lane being closed at a time during construction. Appropriate signage will be posted in order to notify the general public of road closures and detour routes.

Temporary delays to traffic flow could be experienced on residential streets during main outfall ditch improvements. Excavation equipment will operate in close proximity to residential streets while cleaning ditches. In order to ensure public safety, therefore flagmen and physical protection barriers will be utilized where necessary to ensure safe and continuous traffic flow through these areas.

Construction activities will only take place during daylight hours and primarily during the hours of 8:00 am through 5:00 pm. Traffic delays and detours are likely to occur during this time period.

Traffic volumes are expected to return to pre-construction levels following completion of the projects. No permanent effects on transportation are expected as a result of the proposed actions.

#### **4.6.5 Public Service and Utilities**

Public services and utilities are provided to the general population and are considered to be essential to modern life and fundamental human rights. These services are typically provided by local or state government either directly or through financing private provisions of services.

Residents and commercial customers of Larose are provided with a multitude of public services which are available throughout the majority of the project area. Solid waste collection, public schools, potable water, sewer, electricity, parks and recreations, natural gas, law enforcement, public transportation, are public services and utilities available to the residents of the project area.

- NO ACTION ALTERNATIVE

Under the No Action Alternative, no impacts to the public services available to the residents of the project area will be impacted due to no construction activities being conducted.

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- PROPOSED ACTION ALTERNATIVE

All utilities were located during the engineering design phase of the floodwall portion of the proposed action to ensure that utilities are avoided throughout the duration of the project. In addition, a One Call Notification will be made prior to commencement of construction activities to assist contractors in avoiding impacts to existing utilities in the project area.

No temporary or permanent loss in public services and utilities is expected as a result of the proposed action.

#### **4.6.6 Public Health and Safety**

The safety and health of both the general public and personnel engaged in construction activities must be taken into account when considering the proposed actions related to the Industrial Park Floodwall construction and North Intracoastal Drainage Improvements. Congress created the Occupational Safety and Health Administration (OSHA) in 1970 for the purpose of ensuring safe work environments by way of enforceable standards required in the workplace.

Fire protection and law enforcement are an additional means of ensuring safety and security to construction workers and local residents.

- NO ACTION ALTERNATIVE

Under the No Action Alternative, no threat to the safety of the general public and construction workers would occur due to construction activities not being conducted.

- PROPOSED ACTION ALTERNATIVE

Under the Proposed Action Alternative, temporary safety hazards would exist in the form of heavy equipment operation, open excavations, overhead crane operation, etc. Contractors will conduct operations under strict adherence to applicable OSHA standards which would include but not be limited to use of all appropriate Personal Protection Equipment (hard hats, safety toes, gloves, safety glasses, etc.).

Material Data Safety Sheets (MSDS) of all chemicals and or petroleum based products will be readily available on site in the event that workers are exposed to harmful levels of these materials. MSDS sheets list handling procedures, physical properties, spill handling procedures, first aid requirements, and personal protection equipment needed if necessary.

Physical protection barriers will be placed around all open trenches and excavations while unattended in order to ensure the safety of the general public residing in the project area. Appropriate signs and barriers will be in place prior to commencement of construction activities to alert the public of project activities.

During construction activities related to the proposed main outfall ditch improvements, temporary safety risks would occur due to heavy equipment operation in close proximity to residential homes and streets. In order to ensure public safety, flagmen and physical protection barriers will be utilized where necessary.

The upgrades to the pump station will not present a threat to public safety due to the structure not being located in close proximity to areas of vehicle and/or pedestrian traffic. Upon completion of the pump station construction activities, any sections of existing chain link security fence will be replaced to protect the structure from future acts of vandalism and general access from non-authorized personal. Temporary fencing will be installed where necessary during construction to prevent unauthorized entry and potential injury of public.

The overall intent of the Proposed Action Alternative is to provide the project area with protection from flooding resulting from excessive rainfall and tidal surges occurring during tropical storm and hurricane events. Reducing the area's exposure to these disasters will eliminate health and safety risks associated with dangers of high water, illness from stagnant standing water, overflow of sewer treatment systems, and introduction of dangerous wildlife seeking refuge from rising water.

It is anticipated that the Proposed Action Alternative will have long term positive effects on the public health and safety of the area.

#### 4.7 Summary Table

The following table depicts the possible impacts of the Proposed Action Alternative and Mitigating Actions proposed to ensure that effects of impacts remain minimal:

<b>Geology, Soils, &amp; Seismicity</b>	
<b>Proposed Impacts</b>	<b>Mitigating Actions</b>
<ul style="list-style-type: none"> <li>▪ A temporary increase in the potential for erosion of exposed soils is expected to occur during construction</li> <li>▪ Contaminants that could potentially affect surface soils include diesel, oils, and grease from heavy equipment and temporary storage tanks</li> </ul>	<ul style="list-style-type: none"> <li>▪ A Storm Water Pollution Prevention Plan (SWPPP) will be prepared in accordance with the requirements of the Louisiana Pollutant Discharge Elimination System (LPDES) Storm Water General Permit for Construction Activities 5 Acres or Greater (Permit No. LAR100000) or Construction Activities Greater than 1 Acre But Less Than 5 Acres (Permit No. LAR200000)</li> <li>▪ Depending on the aggregate aboveground storage capacity of the project site and the project's location relative to navigable waters of the United States, a Spill Prevention Control and Countermeasure Plan (SPCC) for the job site may be required. The SPCC plan will establish inspection and spill response procedures to ensure that the potential for release of these products and/or effects of releases on surface soils is minimized to the best extent possible</li> <li>▪ In the event that the contaminants listed above are released into the surface soils of the project area, affected soil will be removed and disposed of according to local, state, and federal regulations</li> </ul>
<b>Air Quality</b>	
<b>Proposed Impacts</b>	<b>Mitigating Actions</b>
<ul style="list-style-type: none"> <li>▪ A temporary increase in airborne particulate matter (PM) would result from construction activities in the project area. Ground disturbing activities and vehicular traffic on unpaved roadways or roadways laden with dry sediment would result in the release of PM.</li> <li>▪ Installation of larger pump units could potentially increase emissions various regulated air pollutants while in operation.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Unpaved roads will be sprayed with water by the contractor(s) to ensure that airborne particulates are kept to a minimum.</li> <li>▪ Pump drives will be manufactured to meet more stringent EPA Emission regulations resulting in emissions not considered to have a significant impact on ambient air quality.</li> </ul>

<b>Climate Changes</b>	
<b>Proposed Impacts</b>	<b>Mitigating Actions</b>
Under the Proposed Action Alternative effects of climatic conditions as a result of this project would be negligible	None
<b>Water Quality</b>	
<b>Proposed Impacts</b>	<b>Mitigating Actions</b>
<ul style="list-style-type: none"> <li>▪ A temporary increase in the primary pollutant expected to potentially impact storm water runoff from the construction activity is suspended sediments from soil erosion</li> <li>▪ Contaminants that could potentially affect surface and ground water include diesel, oils, and grease from heavy equipment and temporary storage tanks</li> <li>▪ Illicit sanitary discharges from constructions sites</li> </ul>	<ul style="list-style-type: none"> <li>▪ A Storm Water Pollution Prevention Plan (SWPPP) will be prepared in accordance with the requirements of the Louisiana Pollutant Discharge Elimination System (LPDES) Storm Water General Permit for Construction Activities 5 Acres or Greater (Permit No. LAR100000) or Construction Activities Greater than 1 Acre But Less Than 5 Acres (Permit No. LAR200000)</li> <li>▪ Depending on the aggregate aboveground storage capacity of the project site and the project's location relative to navigable waters of the United States, a Spill Prevention Control and Countermeasure Plan (SPCC) for the job site may be required. The SPCC plan will establish inspection and spill response procedures to ensure that the potential for release of these products and/or effects of releases on surface soils is minimized to the best extent possible</li> <li>▪ Portable sanitary units will temporarily be placed on site and waste will be removed from the property by licensed septage disposal contractors</li> </ul>
<b>Wetlands</b>	
<b>Proposed Impacts</b>	<b>Mitigating Actions</b>
The NWI maps indicated that portions of the main outfall ditches to be improved within the drainage basin are located within jurisdictional wetland areas.	The proposed action does not include the deposition and redistribution of dredge or fill material into wetland areas depicted on the NWI maps. The spoils obtained from the main outfall drainage ditch improvements conducted in areas located within the wetlands depicted on the NWI maps will be transported offsite and deposited within a non-wetland area See Appendix 1 site map for deposited spoils.

<b>Floodplains</b>	
<b>Proposed Impacts</b>	<b>Mitigating Actions</b>
<ul style="list-style-type: none"> <li>▪ The proposed project will involve construction activities taking place within the 100-year floodplain.</li> </ul>	<ul style="list-style-type: none"> <li>▪ The proposed pump station and drainage improvements to multiple main outfall ditches within the project area is intended to increase the overall drainage efficiency of the project area. No adverse effects to the floodplain are expected with respect to altering the base flood elevations or increase in flood hazards to the existing structures within the drainage basin.</li> <li>▪ A Coastal Use Permit Application will be submitted in order to obtain any Coastal Use Permits that may be required to receive authorization to conduct construction activities within the floodplain</li> <li>▪ Lafourche Parish Government, Floodplain Manager issued a response on January 22, 2013 indicating that the department had “No Objection to the project as proposed”</li> <li>▪ The Hydraulic &amp; Hydrology Report for the project determined that none of the proposed actions will cause adverse effects up or downstream of the study area.</li> </ul>
<b>Biological Resources</b>	
<b>Proposed Impacts</b>	<b>Mitigating Actions</b>
<ul style="list-style-type: none"> <li>▪ Existing development in the project area consists primarily of industrial facilities which are not well suited to support endangered species and/or critical habitats. No impacts to endangered / protected species, wildlife, habitat, or scenic rivers are anticipated</li> <li>▪ Construction site runoff could potentially impact aquatic wildlife and plant species</li> <li>▪ Displacement of wildlife due to standing floodwater can cause stress and occasional fatalities to species inhabiting nearby undeveloped areas.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Construction will be confined to right-of-ways designated for such activities</li> <li>▪ Preventative measures such as LPDES Permits, SWPPPs, and BMPs will be implemented throughout the duration of the construction activities to ensure the quality of surface water and aquatic species habitat is not compromised.</li> <li>▪ By carrying out the Proposed Action Alternatives, the project area’s exposure to hazards resulting from excessive rainfall and tidal surges will be decreased, thus reducing potential stress on displaced wildlife</li> </ul>

<b>Coastal Resources</b>	
<b>Proposed Impacts</b>	<b>Mitigating Actions</b>
<p>No impacts to natural storm barriers, wildlife habitat, aquatic resources, aesthetic value, and quality of life for future generations is anticipated as a result of the proposed action</p>	<p>A Coastal Use Permit Application will be submitted in order to obtain any Coastal Use Permits that may be required to receive authorization to conduct construction activities within the Coastal Zone. The impacts to coastal waters caused by the proposed project will dictate conditions of the CUP. Mitigation of wetland areas is a potential “mitigating action” required by the CUP.</p>
<b>Historical Properties &amp; American Indian/Native Hawaiian/Native Alaskan Cultural Religious Sites</b>	
<b>Proposed Impacts</b>	<b>Mitigating Actions</b>
<p>Construction of a portion of the floodwall could potentially impact a recorded archeological site of unknown NRHP eligibility</p>	<ul style="list-style-type: none"> <li>▪ A Phase I Cultural Resources Survey was conducted within the right-of-way of the proposed floodwall structure to determine if buried cultural deposits are present within the project area. No historic properties were found and SHPO concurred that no known historic properties would be affected by the undertaking.</li> <li>▪ In the event that archeological deposits, including any Native American pottery, stone tools, bones, or human remains, are uncovered, the project shall be halted and the applicant shall stop all work immediately in the vicinity of the discovery and take reasonable measures to avoid or minimize harm to the finds. All archeological findings will be secured and access to the sensitive area restricted. The applicant will inform FEMA immediately and FEMA will consult with the SHPO or Tribes and work in sensitive areas cannot resume until consultation is completed and appropriate measures have been taken to ensure that the project is in compliance with the NHPA.</li> </ul>

<b>Environmental Justice</b>	
<b>Proposed Impacts</b>	<b>Mitigating Actions</b>
Under the Proposed Action Alternative, all residents regardless of race or income level located within the project area would benefit from a decrease in the probability of flood damage as a result of the drainage improvements and floodwall structure	None

<b>Hazardous Material</b>	
<b>Proposed Impacts</b>	<b>Mitigating Actions</b>
<ul style="list-style-type: none"> <li>▪ Storage and use of hazardous materials not anticipated during the Proposed Action. Non-hazardous materials in the form of diesel fuel and engine oils could potentially be temporarily stored on construction sites</li> <li>▪ Non-Hazardous industrial materials could be released into surface soils, groundwater, and/or surface waters.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Depending on the aggregate aboveground storage capacity of the project site and the project's location relative to navigable waters of the United States, a Spill Prevention Control and Countermeasure Plan (SPCC) for the job site may be required. The SPCC plan will establish inspection and spill response procedures to ensure that the potential for release of these products and/or effects of releases on surface soils is minimized to the best extent possible.</li> <li>▪ Contaminated soils will be removed and disposed of according to local, state, and federal regulations.</li> <li>▪ Unusable equipment, debris and material shall be disposed of in an approved manner and location. In the event significant items (or evidence thereof) are discovered during implementation of the project, applicant shall handle, manage, and dispose of petroleum products, hazardous materials and toxic waste in accordance to the requirements and to the satisfaction of the governing local, state and federal agencies.</li> <li>▪</li> <li>▪ If any asbestos containing materials, lead based paint and/or other hazardous materials are found during demolition, the applicant must comply with all federal, state and local abatement and disposal requirements under the National Emissions Standards for Hazardous Air Pollutants (NESHAP).</li> </ul>

<b>Noise</b>	
<b>Proposed Impacts</b>	<b>Mitigating Actions</b>
Short term increases to noise levels are expected during operation of construction equipment and increased vehicular traffic	Contractors will operate this equipment outside of the restricted hours established in the Lafourche Parish noise ordinance.
<b>Traffic</b>	
<b>Proposed Impacts</b>	<b>Mitigating Actions</b>
<ul style="list-style-type: none"> <li>▪ Temporary increases in vehicular traffic volume would occur throughout the duration of the proposed construction activities</li> <li>▪ A 920 foot portion of Industrial Park Rd. will be open to one lane traffic during construction.</li> <li>▪ Temporary delays to traffic flow could be experienced on residential streets during main outfall ditch improvements.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Appropriate signage will be posted in order to notify the general public of road closures and detour routes.</li> <li>▪ Flagmen and physical protection barriers will only be utilized where necessary to ensure safe and continuous traffic flow through these areas.</li> </ul>

<b>Public Services and Utilities</b>	
<b>Proposed Impacts</b>	<b>Mitigating Actions</b>
The Proposed Action is not expected to impact Public Services and Utilities available to the residents and business establishments situated within the project area.	None (All utilities will be located)
<b>Public Health and Safety</b>	
<b>Proposed Impacts</b>	<b>Mitigating Actions</b>
<ul style="list-style-type: none"> <li>▪ Temporary safety hazards would exist in the form of heavy equipment operation, open excavations and trenches, overhead crane operation, etc. associated with construction activities.</li> <li>▪ The potential exists for harmful exposure of contractors to chemicals/petroleum products.</li> <li>▪ Open trenches and excavations could present temporary safety hazards to the general public</li> </ul>	<ul style="list-style-type: none"> <li>▪ Contractors will conduct construction operations under strict adherence to applicable OSHA standards which would include but not be limited to use of all appropriate Personal Protection Equipment.</li> <li>▪ MSDS of all chemicals and or petroleum based products will be readily available on site in the event that workers are exposed to harmful levels of these materials.</li> <li>▪ Appropriate signs and barriers will be in place to protect the public from safety hazards</li> </ul>

## 5.0 CUMULATIVE IMPACTS

The combined, incremental effects of human activity, referred to as cumulative impacts, pose a serious threat to the environment. While they may be insignificant by themselves, cumulative impacts accumulate over time, from one or more sources, and can result in the degradation of important resources. Because federal projects cause or are affected by cumulative impacts, this type of impact must be assessed in documents prepared under the National Environmental Policy Act (NEPA). The assessment of cumulative impacts in NEPA documents is required by Council on Environmental Quality (CEQ) regulations (CEQ, 1987).

The project area is located in a primarily residential area of Larose, Lafourche Parish, LA just north of the intersection of Bayou Lafourche and the Gulf Intracoastal Waterway (GIWW). The study area is situated approximately 30 miles north of the Gulf of Mexico and directly adjacent to the Gulf Intracoastal Waterway (GIWW) which makes it susceptible to strong winds, excessive rainfall, and tidal surges during tropical storm and hurricane events. Industrial Park Rd. currently provides minimal surge protection, and according to past tidal data, the current elevation of +2.5 ft. is not adequate in protecting the project area from flooding. As a result, historic flooding of numerous residential properties has occurred.

The Proposed Action Alternative involves constructing a floodwall structure to an elevation that will provide storm surge protection to the properties on the west side of the project area along with conducting drainage improvements to adequately drain rainwater from a 25 year storm into the 40 Arpent Canal without allowing property flooding. Temporary impacts to shallow soils, air quality, noise levels, and traffic are anticipated as a result of the proposed action. Due to the effects on these resources being isolated to the timeframe of the proposed project, no long-term cumulative impacts will occur. The potential for effects on water quality and physical resources exists as a result of the proposed action alternative and are discussed in Sections 4.1 and 4.2. Mitigative procedures are addressed in these sections to ensure that long term cumulative impacts to these resources are avoided to the best extent possible. In addition, the proposed activities will take place within a developed area consisting of residential, commercial, and industrial properties, thus no cumulative impacts on biological resources will occur.

Long term positive cumulative impacts are anticipated as a result of the proposed action. Providing increased flood protection to the undeveloped properties along the GIWW will facilitate additional development of industrial facilities within the project area. These facilities could provide employment opportunities to residents of the area and generate a positive impact to the local economy. Improved drainage efficiency of the residential portion of the project area could raise property values and increase residential development while improving quality of life for local citizens.

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## 6.0 PUBLIC INVOLVEMENT

FEMA has been delegated the authority to approve the EA before its release for public review. NEPA requires that FEMA make a “diligent” effort to involve the interested and affected public on a proposal for which an EA is prepared, which includes but is not limited to, public review of Draft EAs, responses to comments.

The Draft EA will be sent out for public review for a minimum of 30 days. The notice that an EA is available for review will, at a minimum, be published in the local newspaper of record. The notice will appear in a visible location in the paper, and anyone who requests a copy of the EA should receive one, until a reasonable number of copies have been distributed. Those who request a copy after this time should be referred to the nearest library or other government office that has a record copy. It is acceptable to send an electronic copy or make an electronic copy available if the person requesting has access to such a copy.

All public comments will be addressed prior to finalizing the EA.

## 7.0 AGENCY COORDINATION AND PERMITS

The following agencies and organizations were sent requests for review and comment via letters and attached maps/drawings of the proposed action. Copies of the letters and responses can be found in the Appendix section pertaining to each potentially affected environment:

- Chitimacha Tribe of Louisiana
- Choctaw Nation of Oklahoma
- Louisiana Department of Environmental Quality – Bayou Regional Office
- Louisiana Department of Natural Resources – Office of Coastal Management
- Louisiana Department of Wildlife & Fisheries
- Tunica-Biloxi Tribe of Louisiana
- U.S. Army Corps of Engineers – Regulatory Branch
- U.S. Department of Agriculture – NRCS (Soils Section)
- U.S. Fish & Wildlife Service – Louisiana Field Office

## 8.0 REFERENCES

1. FEMA - *Hazard Mitigation Grant Program Overview*  
<http://www.fema.gov/hazard-mitigation-grant-program>
2. *North Intracoastal Area Hydraulic & Hydrology Report* completed by Angelette-Picciola, LLC on March 13, 2013.
3. *Lafourche Parish Government Industrial Park Floodwall Engineering Plans* completed by Angelette-Picciola, LLC on December 28, 2011.
4. U.S. Geological Survey – *Water Resources Investigations Report 88-4100 (Geologic & Hydrogeologic Setting)* 1980.
5. U.S. Department of Agriculture – *Natural Resources Conservation Service (NRCS) Web Soil Survey*  
<http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>
6. U.S. Geological Survey – *National Seismic Hazard Mapping Project – Earthquake Hazards Program* <http://earthquake.usgs.gov/hazards/>
7. Lindeburg, Michael, P.E. – *Environmental Engineering Reference Manual (2<sup>nd</sup> Edition) - 2003*
8. Louisiana Department of Environmental Quality (LDEQ) – *Air Permits Division Webpage* - <http://www.deq.louisiana.gov/portal/tabid/64/Default.aspx>
9. EPA – *Causes of Climate Change*  
<http://www.epa.gov/climatechange/science/causes.html>
10. EPA – *Clean Water Act* - <http://www.epa.gov/agriculture/lcwa.html>
11. Louisiana Department of Environmental Quality (LDEQ) - *2012 Integrated Report of Water Quality in Louisiana Section 303(d) List*  
<http://www.deq.louisiana.gov/portal/Portals/0/planning/305b/2012/12%20IR1%20Appendix%20H%20Section%20303-d%20List%20FINAL%201-25-13.pdf>
12. U.S. Fish & Wildlife Service – *National Wetlands Inventory (Wetland Mapper)*  
<http://www.fws.gov/wetlands/Data/Mapper.html>
13. Lafourche Parish Government – *FEMA DFIRMs*  
[http://www.lafourchegov.org/prelim\\_dfirms.aspx](http://www.lafourchegov.org/prelim_dfirms.aspx)
14. Lafourche Parish Government – *Coastal Zone Management*  
[http://www.lafourchegov.org/Departments\\_CZM.aspx](http://www.lafourchegov.org/Departments_CZM.aspx)

15. U.S. Fish & Wildlife Service – *Species by County Report: Lafourche Parish*  
[http://ecos.fws.gov/tess\\_public/countySearch!speciesByCountyReport.action?fips=22057](http://ecos.fws.gov/tess_public/countySearch!speciesByCountyReport.action?fips=22057)
16. Louisiana Department of Wildlife & Fisheries – *Scenic Rivers*  
<http://www.wlf.louisiana.gov/scenic-rivers>
17. Louisiana Office of Cultural Development /Division of Archaeology – *Section 106*  
<http://www.crt.state.la.us/archaeology/review/106submit.aspx>
18. National Park Service – *Tribal Preservation Program*  
[http://www.nps.gov/tribes/Tribal\\_Historic\\_Preservation\\_Officers\\_Program.htm](http://www.nps.gov/tribes/Tribal_Historic_Preservation_Officers_Program.htm)
19. FEMA – *Executive Order 12898 (Environmental Justice for Low Income & Minority Populations, 1994)*  
<http://www.fema.gov/environmental-planning-and-historic-preservation-program/executive-order-12898-environmental-justice>
20. U.S. Census Bureau – *Larose CDP, Louisiana QuickLinks*  
<http://quickfacts.census.gov/qfd/states/22/22421351k.html>
21. EPA – *Noise Control Act* - <http://www2.epa.gov/laws-regulations/summary-noise-control-act>
22. Lafourche Parish Government – *Noise Ordinance 4904*  
<http://www.lafourchegov.org/ORDINANCES/2011/4904.pdf>
23. Wikipedia – *Climate Change* - [http://en.wikipedia.org/wiki/Climate\\_change](http://en.wikipedia.org/wiki/Climate_change)
24. U.S. EPA, Office of Federal Activities – *Consideration of Cumulative Impacts in EPA Review of NEPA Documents – May 1999*
25. R.C. Goodwin & Associates, Inc. – *“Phase I Cultural Resources Survey of the Proposed Lafourche Parish Government Industrial Park Road Floodwall Project in Larose, Louisiana”– Oct. 2013*

## **9.0 LIST OF PREPARERS**

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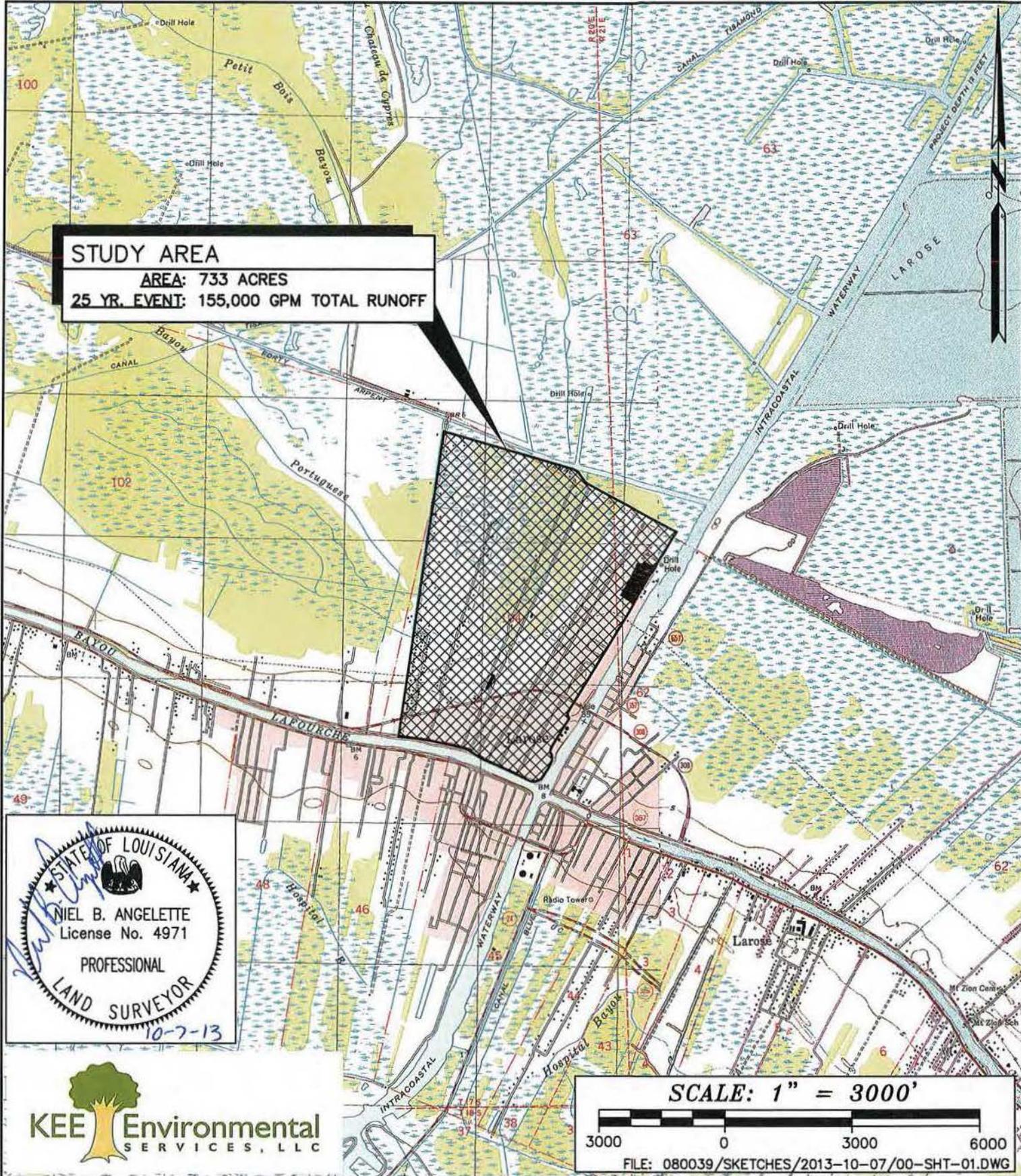


## 10.0 APPENDICES



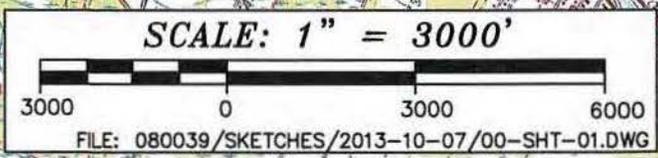
## **Appendix No. 1**

Site Maps



**STUDY AREA**  
**AREA: 733 ACRES**  
**25 YR. EVENT: 155,000 GPM TOTAL RUNOFF**

STATE OF LOUISIANA  
 NIEL B. ANGELETTE  
 License No. 4971  
 PROFESSIONAL  
 LAND SURVEYOR  
 10-7-13



**LAFOURCHE PARISH GOVERNMENT**

VICINITY MAP

LAROSE, LOUISIANA

LAFOURCHE PARISH



**Angelette-Picciola**  
 Consulting Engineers & Surveyors

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 P.O. BOX 970 - LAROSE, LA 70373

PHONE: 985-798-7700

FAX: 985-798-7755

DESIGNED BY  
L.J.P.

DRAWN BY  
K.S.P.

CHECKED BY  
N.B.A.

SCALE  
1" = 3000'

DATE  
10-7-13

PROJECT  
080039

SHEET NO.  
1 OF 2



T-BOIS PUMP STATION  
 LAT. 29.595188° N  
 LON. 90.390871° W

LAT. 29.575805° N  
 LON. 90.394373° W

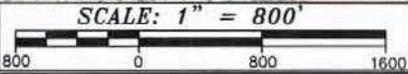
LAT. 29.572832° N  
 LON. 90.384464° W

BEGIN ELEVATED ROAD/  
 FLOODWALL  
 LAT. 29.574726° N  
 LON. 90.383218° W

END ELEVATED ROAD/  
 FLOODWALL  
 LAT. 29.583105° N  
 LON. 90.377850° W

STUDY AREA  
 AREA: 733 ACRES  
 25 YR. EVENT: 155,000 GPM TOTAL RUNOFF

LAT. 29.588621° N  
 LON. 90.373757° W



FILE: 080039/SKETCHES/2013-10-07/00-SHT-01.DWG

NO.	REVISION	DATE

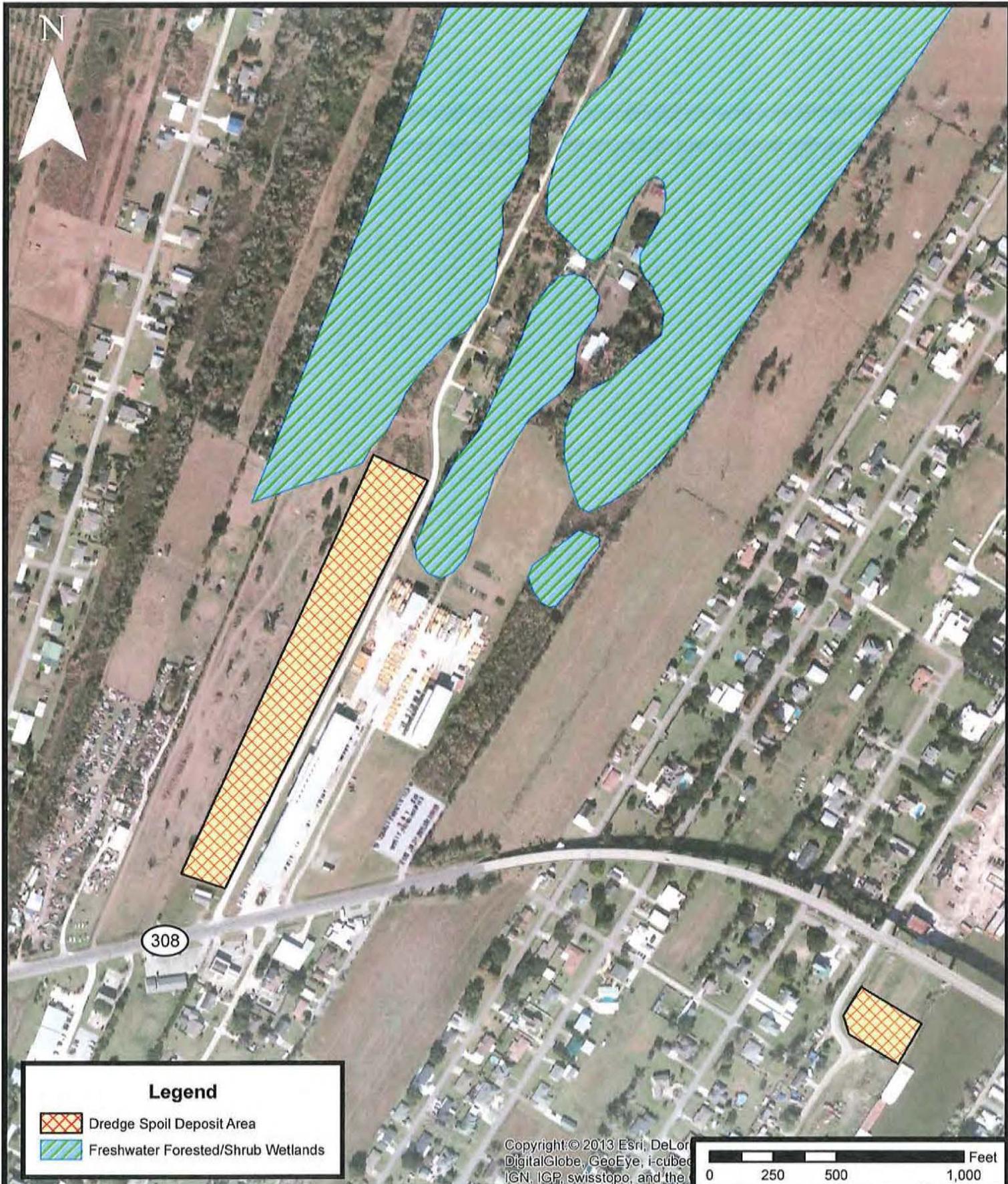
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DESIGNED BY L.J.P.	DRAWN BY K.S.P.	CHECKED BY N.B.A.
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LAFORCHE PARISH GOVERNMENT  
 MAP OF STUDY AREA  
 LAROSE, LOUISIANA LAFORCHE PARISH

SCALE 1"=800'
DATE 10-7-13
PROJECT 080039
SHEET NO. 2 OF 2



**Lafourche Parish North Intracoastal Drainage Improvements  
Main Outfall Ditch Improvements - Dredge Spoil Deposit Areas  
Larose, La**



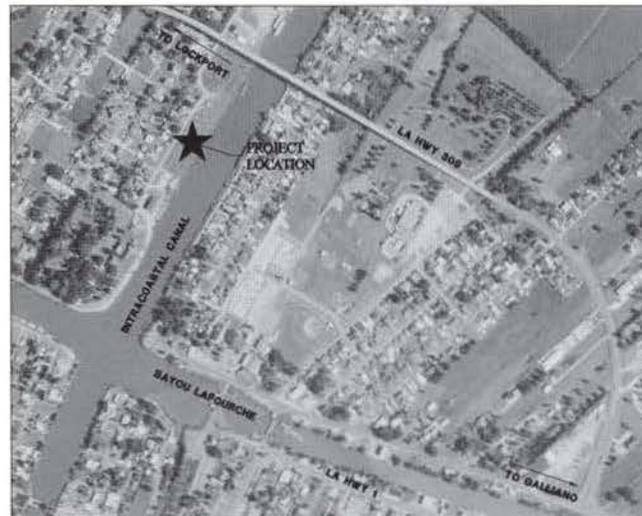
## **Appendix No. 2**

### Preliminary Engineering Design

# LAFOURCHE PARISH GOVERNMENT

## INDUSTRIAL PARK ROAD FLOODWALL

### LAROSE, LOUISIANA



#### INDEX TO SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	OVERALL SITE PLAN
3	PLAN AND PROFILE - STA. 0+00 TO 5+75
4	PLAN AND PROFILE - STA. 5+75 TO 11+75
5	PLAN AND PROFILE - STA. 11+75 TO 17+75
6	PLAN AND PROFILE - STA. 17+75 TO 23+75
7	PLAN AND PROFILE - STA. 23+75 TO 30+00
8	PLAN AND PROFILE - STA. 30+00 TO 38+40
9	TYPICAL SECTION - FLOODWALL
10	TYPICAL SECTION - ROADWAY OVERLAY
11	TYPICAL SECTION AND FLOODWALL CROSSING DETAILS
12	CB-DI DETAILS
13	FLOODWALL DE-IN AND ROADWAY DETAILS
14	FLOODGATE SECTIONS AND DETAILS
15	FLOOD GATE CONCRETE DETAILS

TOTAL NUMBER OF SHEETS 15

#### LOCAL VICINITY MAP

SCALE: 1" = 400'



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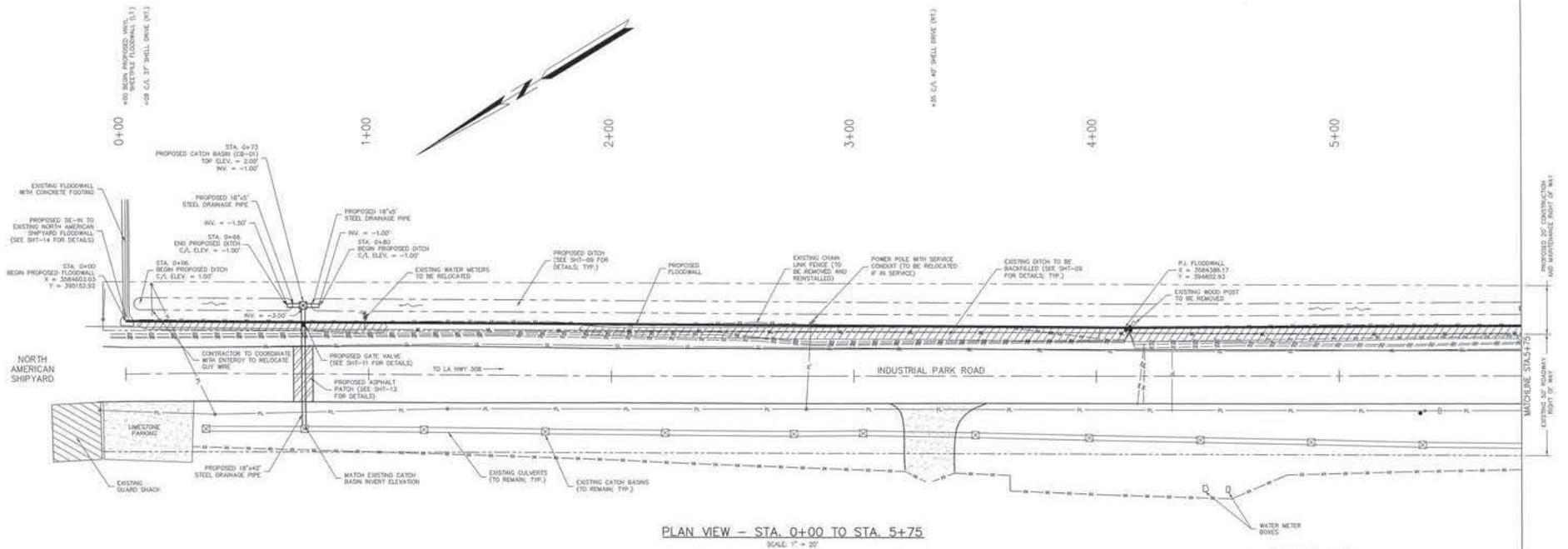


PREPARED AND APPROVED BY: *Larry J. Picciola*  
LARRY J. PICCIOLA, P.E.

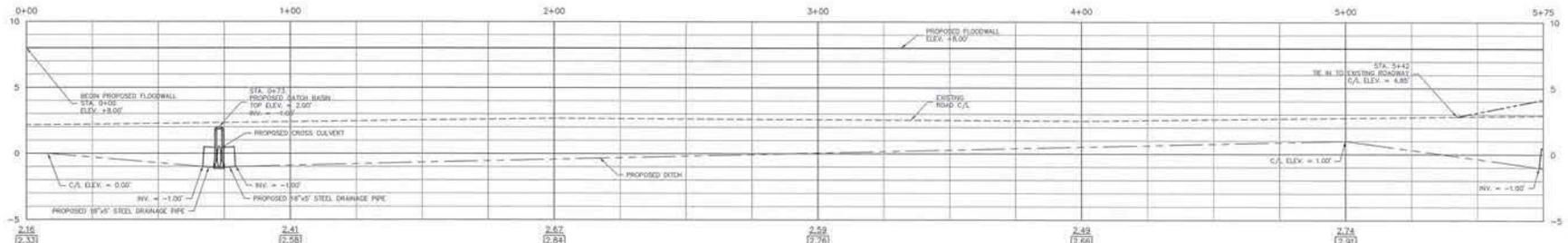
12/28/11  
DATE

**FOR APPROVAL**





PLAN VIEW - STA. 0+00 TO STA. 5+75  
SCALE: 1" = 20'



PROFILE - STA. 0+00 TO STA. 5+75  
HORIZ. 1" = 20'  
VERT. 1" = 4'

LEGEND

- - - DRAINAGE FLOW
- o POWER POLE
- o STREET SIGN
- o FIRE HYDRANT
- o PHONE PEDESTAL
- o MAILBOX
- o ELECTRIC BOX
- o WATER METER
- o CATCH BASIN
- - - WATER LINE
- - - PHONE/CABLE LINE
- - - GAS LINE
- - - OVERHEAD POWER LINE
- - - EXISTING FENCE
- - - EXISTING ROADWAY ELEVATION
- - - PROPOSED ROADWAY ELEVATION

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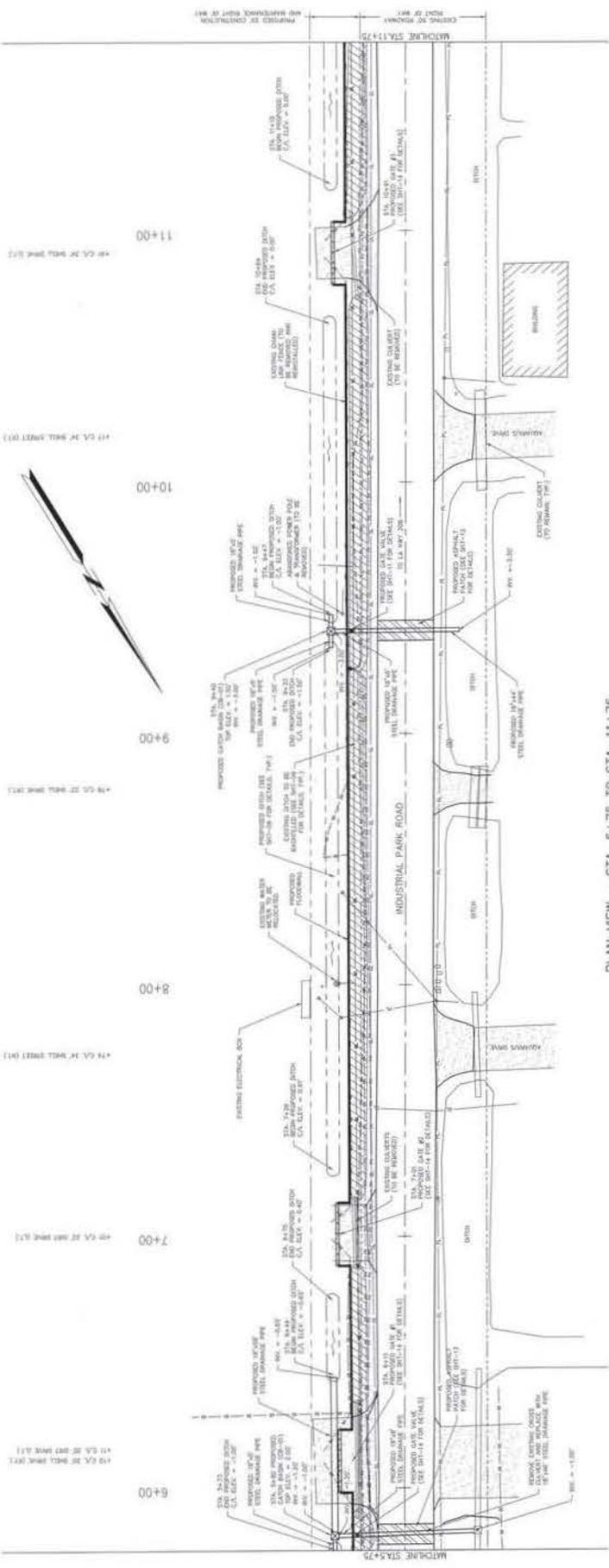
**FOR APPROVAL**

NO.	REVISION	DATE
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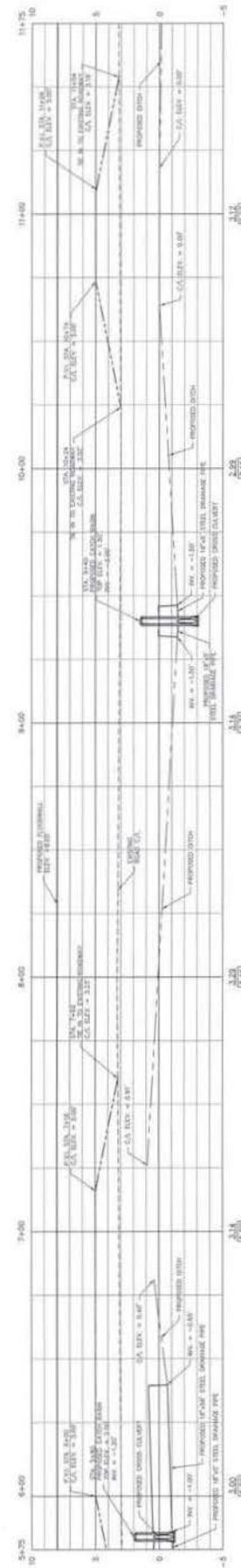
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DESIGNED BY: L.J.P. DRAWN BY: S.M.C. CHECKED BY: L.J.P.



LAFORCHE PARISH GOVERNMENT		SCALE SHOWN
PLAN AND PROFILE - STA. 0+00 TO STA. 5+75		DATE
LAROSE, LOUISIANA		4-28-11
LAFORCHE PARISH		PROJECT
		DB0039
		DRAWN BY
		3 OF 14



PLAN VIEW - STA. 5+75 TO STA. 11+75  
SCALE: 1" = 20'



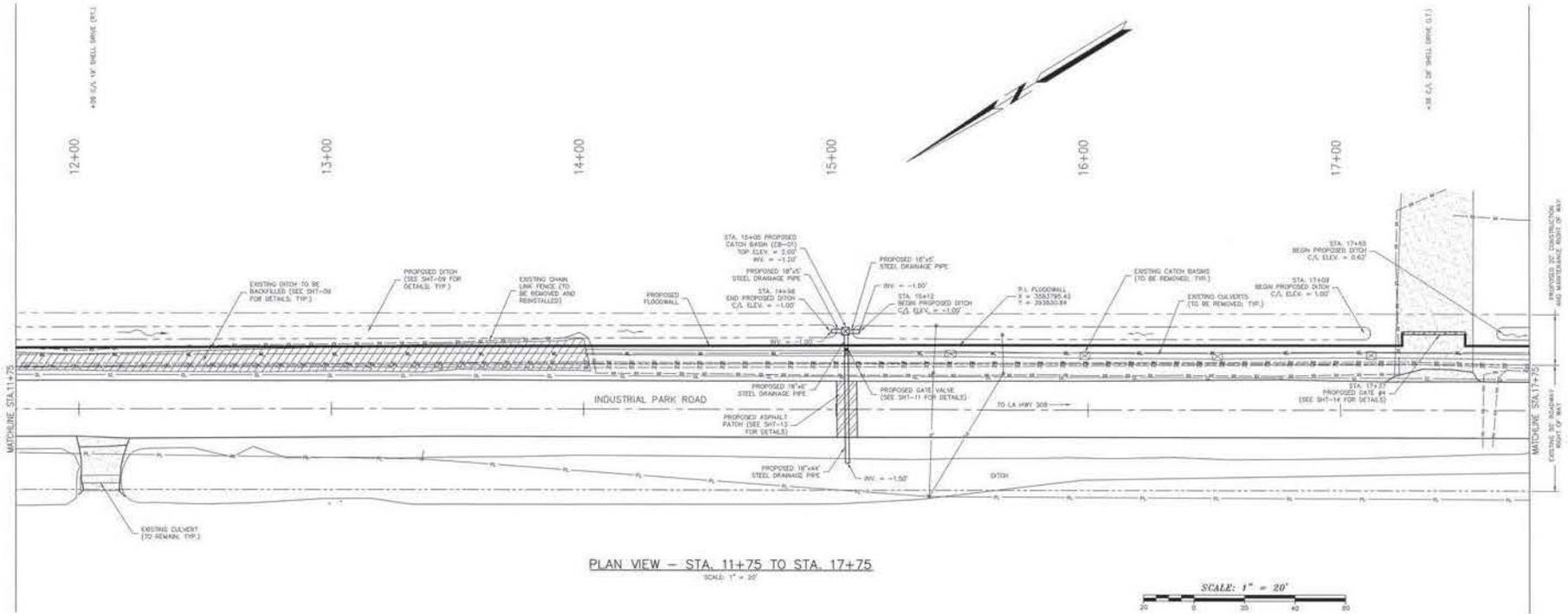
PROFILE - STA. 5+75 TO STA. 11+75  
SCALE: 1" = 4'

**FOR APPROVAL**

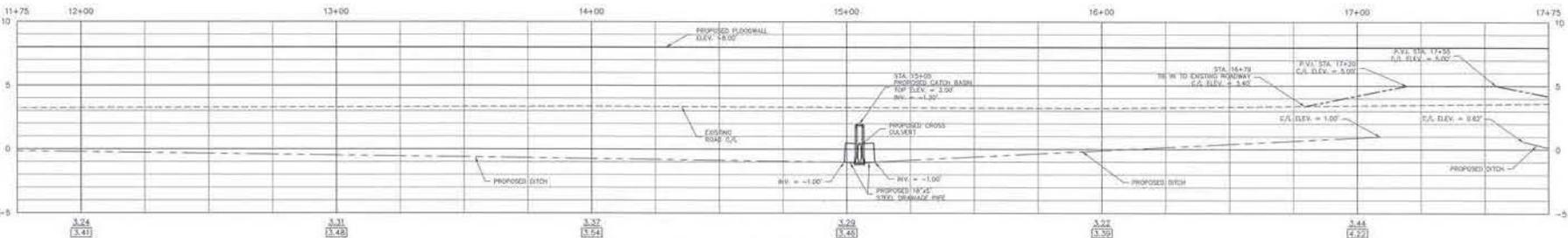
NO.	REVISION	DATE	BY
1	GENERAL IMPROVEMENT	10/20/11	

<b>Angelette • Picciola, LLC</b> CONSULTING ENGINEERS & SURVEYORS 1329 HWY 526 - OFF. OFF. LA 70053 P.O. BOX 883 - LAUREL, LA 70052	L.P.F. S.M.G. L.P.F.	DESIGNED BY CHECKED BY DRAWN BY DATE 08/28/11	LAFORCHÉ PARISH GOVERNMENT PLAN AND PROFILE - STA. 5+75 TO STA. 11+75 LAFORCHÉ PARISH LAUREL, LOUISIANA SHEET NO. 4 OF 14
--	----------------------------	---	--



PLAN VIEW - STA. 11+75 TO STA. 17+75  
SCALE: 1" = 20'



PROFILE - STA. 11+75 TO STA. 17+75  
HORIZ. 1" = 20'  
VERT. 1" = 2'

**FOR APPROVAL**

NO.	REVISION	DATE
1	GENERAL REVISIONS	12-08-11

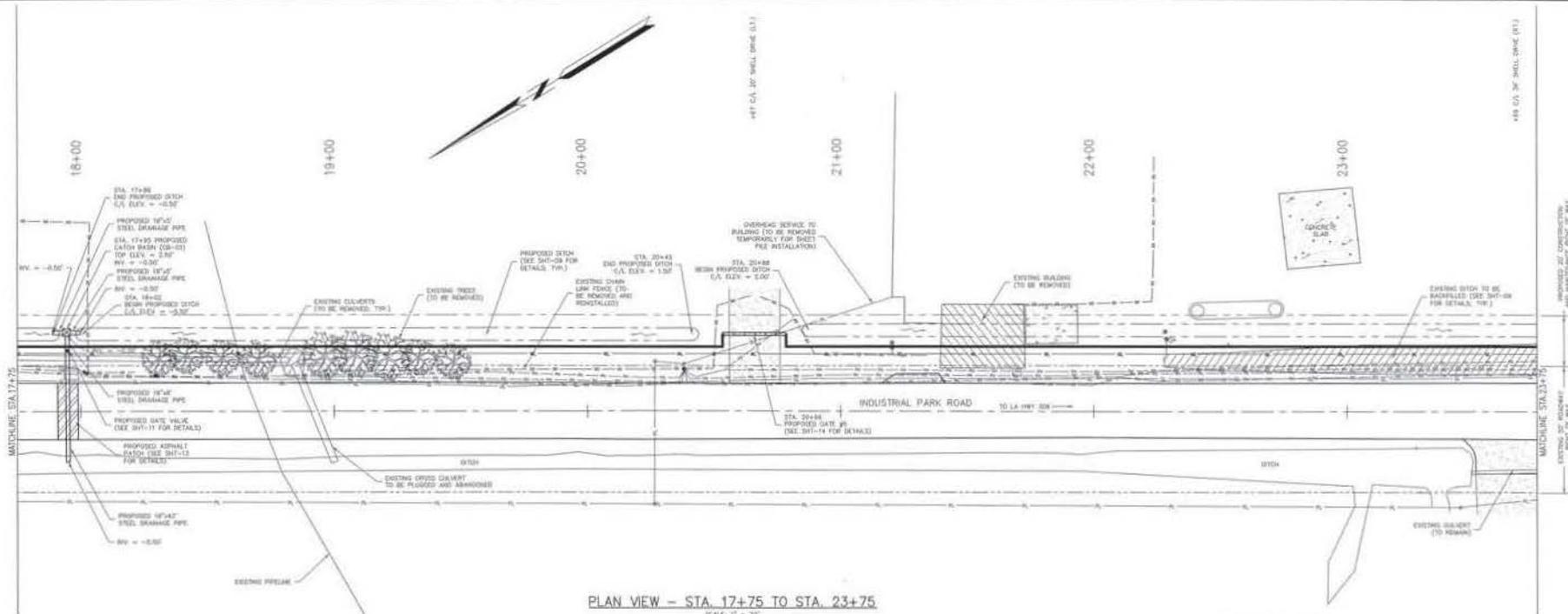
**Angelette • Picciola, LLC**  
CONSULTING ENGINEERS & SURVEYORS  
13379 HWY 3235 - SUIT OFF. LA 70445  
P.O. BOX 976 - LAROSE, LA 70073



**LAFORCHÉ PARISH GOVERNMENT**  
PLAN AND PROFILE - STA. 11+75 TO STA. 17+75

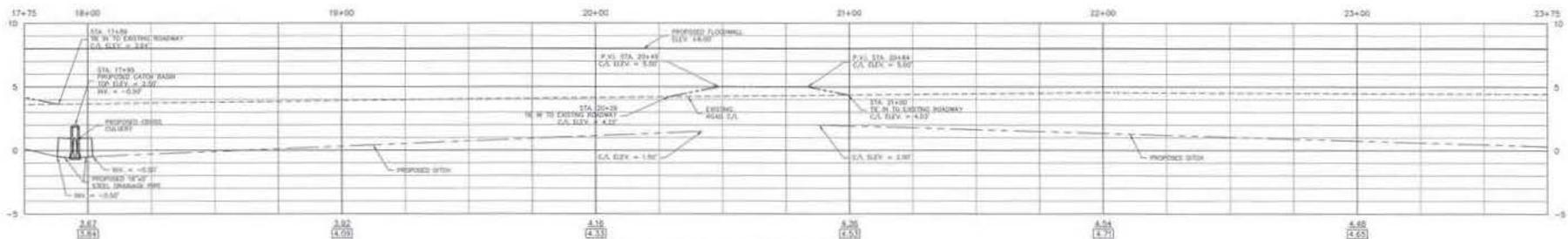
DESIGNED BY: L.J.P. DRAWN BY: S.M.G. CHECKED BY: L.J.P.

DATE: 4-28-11  
PROJECT: 080039  
SHEET NO: 5 OF 14



PLAN VIEW - STA. 17+75 TO STA. 23+75

SCALE: 1" = 20'



PROFILE - STA. 17+75 TO STA. 23+75

HORIZ. 1" = 20'

VERT. 1" = 4'

**FOR APPROVAL**

NO.	REVISION	DATE
1	GENERAL REVISIONS	12-28-11

**Angelette • Picciola, LLC**  
 CONSULTING ENGINEERS & SURVEYORS

5889 HWY 503 - CUT OFF, LA 70445  
 P.O. BOX 870 - LAROSE, LA 70372

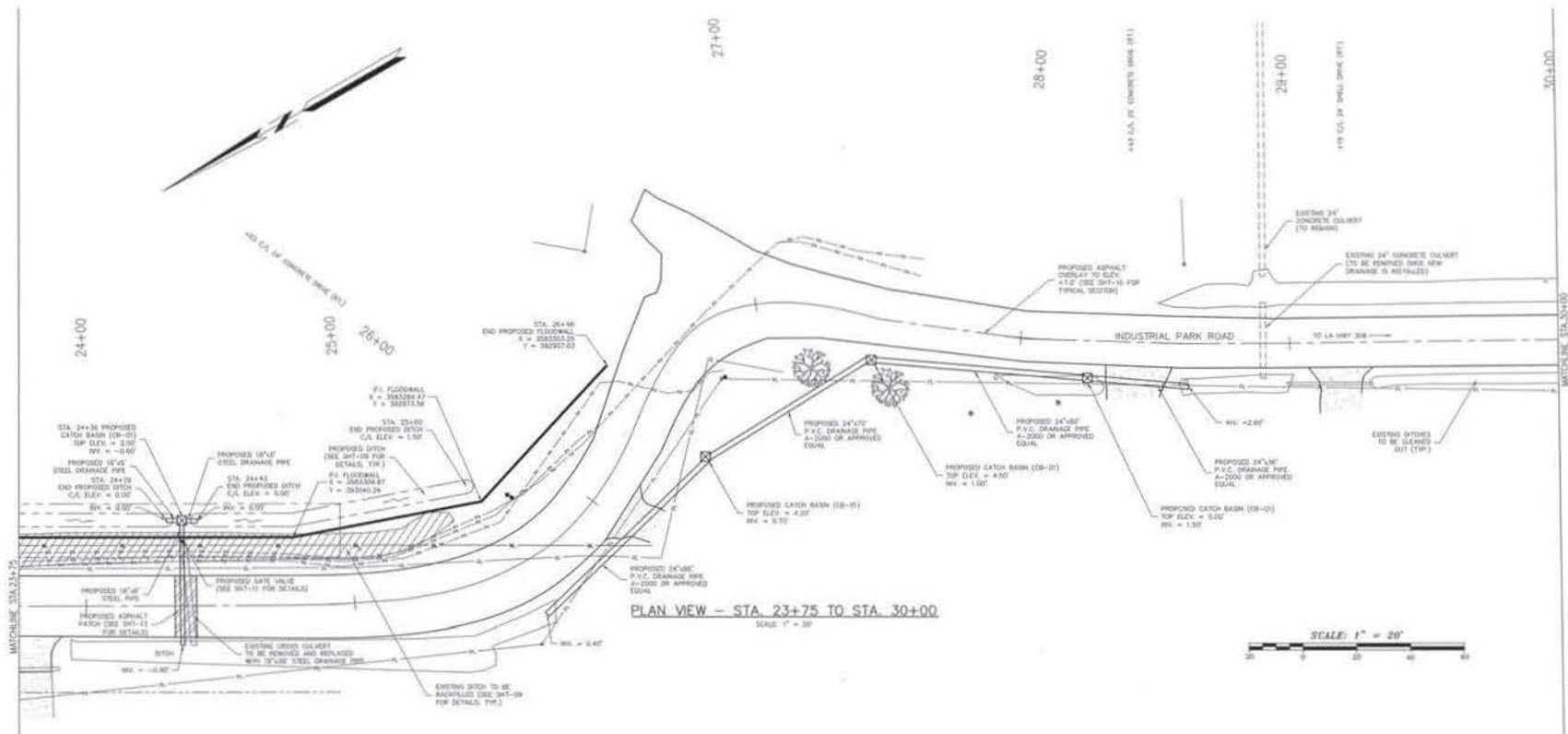
PHONE: 504.766.7788 FAX: 504.766.7789  
 DESIGNED BY: L.J.P. DRAWN BY: S.M.G. CHECKED BY: L.J.P.



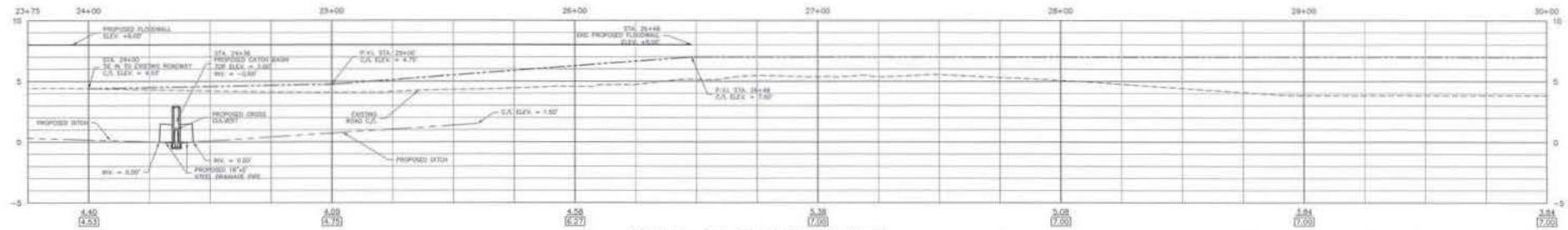
**LAFOURCHE PARISH GOVERNMENT**  
 PLAN AND PROFILE - STA. 17+75 TO STA. 23+75

LAROSE, LOUISIANA LAFOURCHE PARISH

SCALE: SHOWN  
 DATE: 4-28-11  
 PROJECT: DB0035  
 SHEET NO.: 8 OF 14



PLAN VIEW - STA. 23+75 TO STA. 30+00  
SCALE: 1" = 20'



PROFILE - STA. 23+75 TO STA. 30+00  
VERT. 1" = 5'  
HORIZ. 1" = 40'

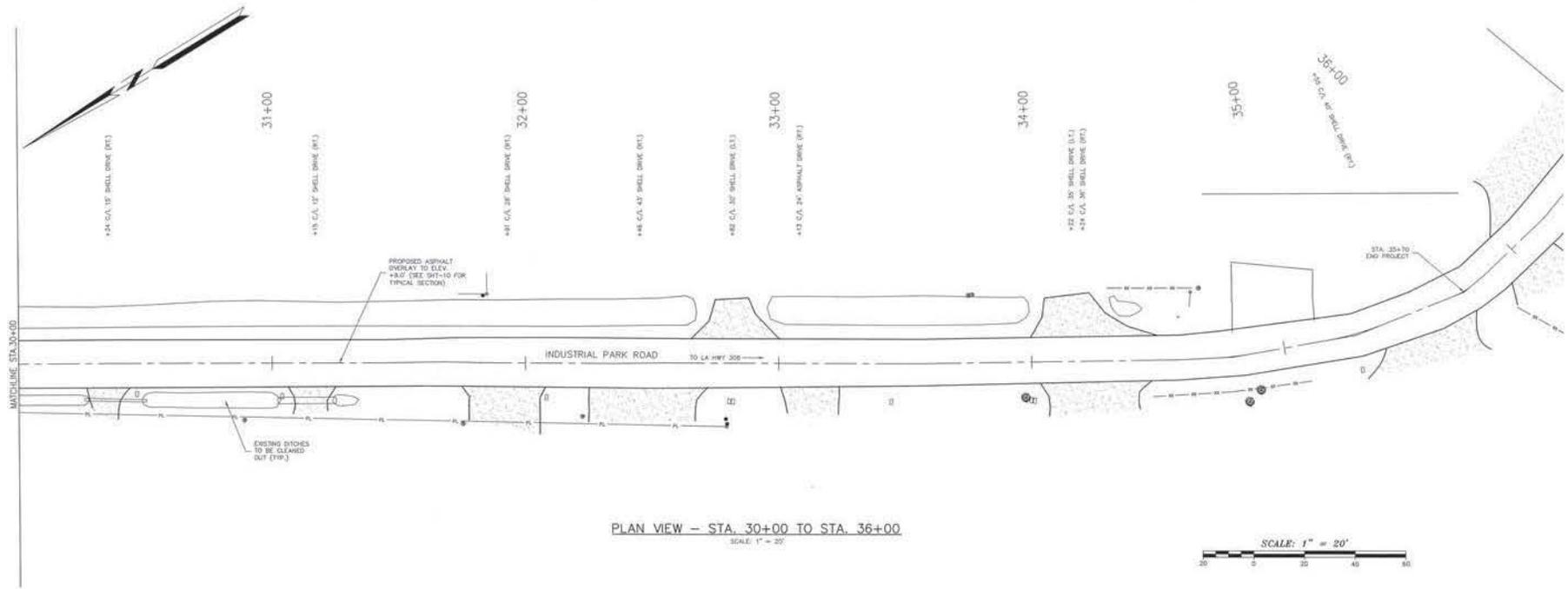
**FOR APPROVAL**

NO.	REVISION	DATE
1	GENERAL REVISIONS	10-28-11

**Angelette • Picciola, LLC**  
CONSULTING ENGINEERS & SURVEYORS  
13379 HWY 3026 - CUT OFF, LA 70345  
P.O. BOX 919 - LAROSE, LA 70373  
PHONE: 985/781-7722 FAX: 985/781-7723  
DESIGNED BY: L.J.P. DRAWN BY: S.M.C. CHECKED BY: L.J.P.



<b>LAFOURCHE PARISH GOVERNMENT</b>		SCALE SHOWN
PLAN AND PROFILE - STA. 23+75 TO STA. 30+00		DATE
LAROSE, LOUISIANA		4-28-11
LAFOURCHE PARISH		PROJECT
		GRD039
		SHEET NO.
		7 OF 14



PLAN VIEW - STA. 30+00 TO STA. 36+00  
SCALE: 1" = 20'



PROFILE - STA. 30+00 TO STA. 36+00  
HORIZ. 1" = 20'  
VERT. 1" = 4'

**FOR APPROVAL**

NO.	REVISION	DATE
1	GENERAL REVISIONS	12-28-11

**Angelette • Picciola, LLC**  
CONSULTING ENGINEERS & SURVEYORS

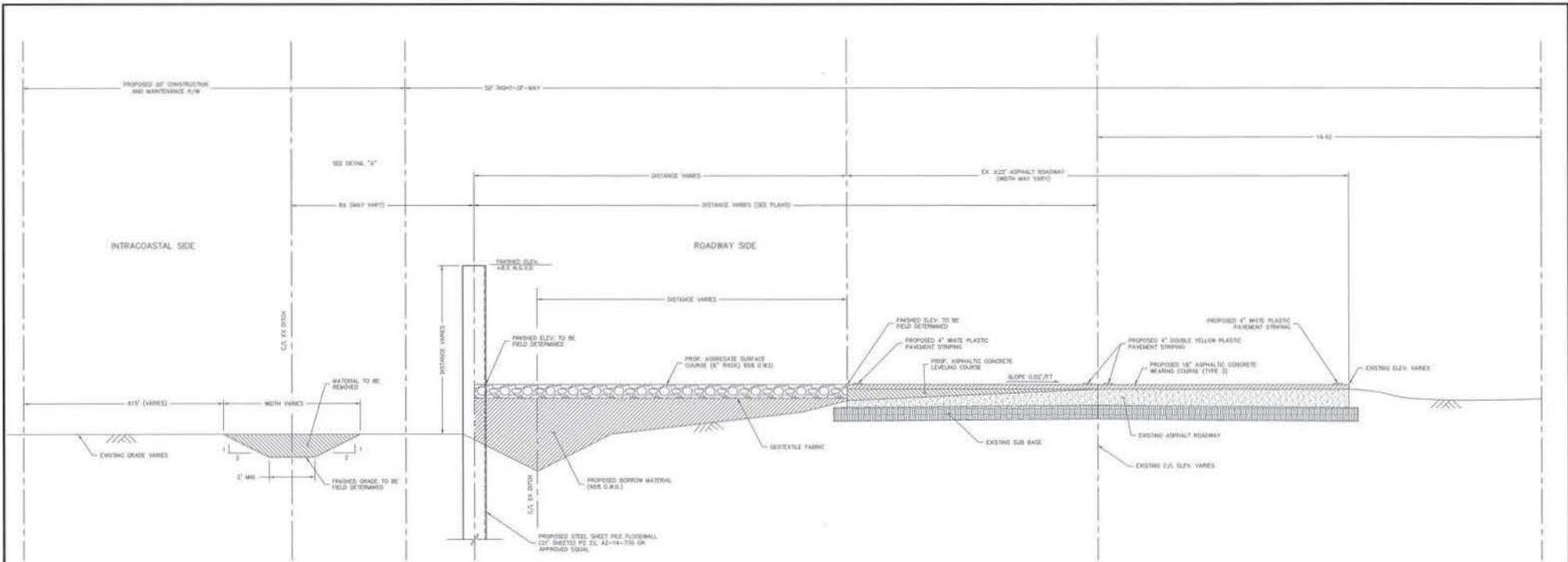
13375 HWY 5235 - CUT OFF, LA 70345  
P.O. BOX 970 - LAROSE, LA 70357

PHONE: 985-798-7700 FAX: 985-798-7708

DESIGNED BY: L.J.P. DRAWN BY: S.M.G. CHECKED BY: L.J.P.



LAFORCHE PARISH GOVERNMENT		SCALE SHOWN
PLAN AND PROFILE - STA. 30+00 TO STA. 36+00		DATE: 4-28-11
LAROSE, LOUISIANA		PROJECT: D80039
LAFORCHE PARISH		SHEET NO. 8 OF 14



TYPICAL SECTION FLOODWALL  
SCALE 1" = 2'-0"

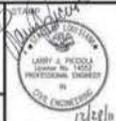
- NOTES
1. ANY ADJUSTMENTS TO THE PROPOSED STEEL FLOODWALL SHALL BE APPROVED BY THE PROJECT ENGINEER PRIOR TO CONSTRUCTION.
  2. PROPOSED STEEL SHEET PILE FLOODWALL SHALL BE PZ 22, 42-14-770 (OR APPROVED EQUAL) 21' SHEETS.
  3. ALL HARDWARE UTILIZED IN THE CONSTRUCTION OF THE PROPOSED WOOD CAP SHALL BE HOT DIP GALVANIZED. ALL TIMBERS UTILIZED IN THE CONSTRUCTION OF THE PROPOSED WOOD CAP SHALL HAVE 0.8 CCA TREATMENT.
  4. CONTRACTOR SHALL PROPERLY SIGN AND BARRICADE THE PROPOSED WORK AREA TO MAINTAIN SAFE TRAFFIC MOVEMENT AND GUIDANCE, AS WELL AS, FOR THE PROTECTION OF THE CONSTRUCTION PERSONNEL. ALL SIGNS AND BARRICADES SHALL CONFORM TO THE CURRENT EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".

FOR APPROVAL

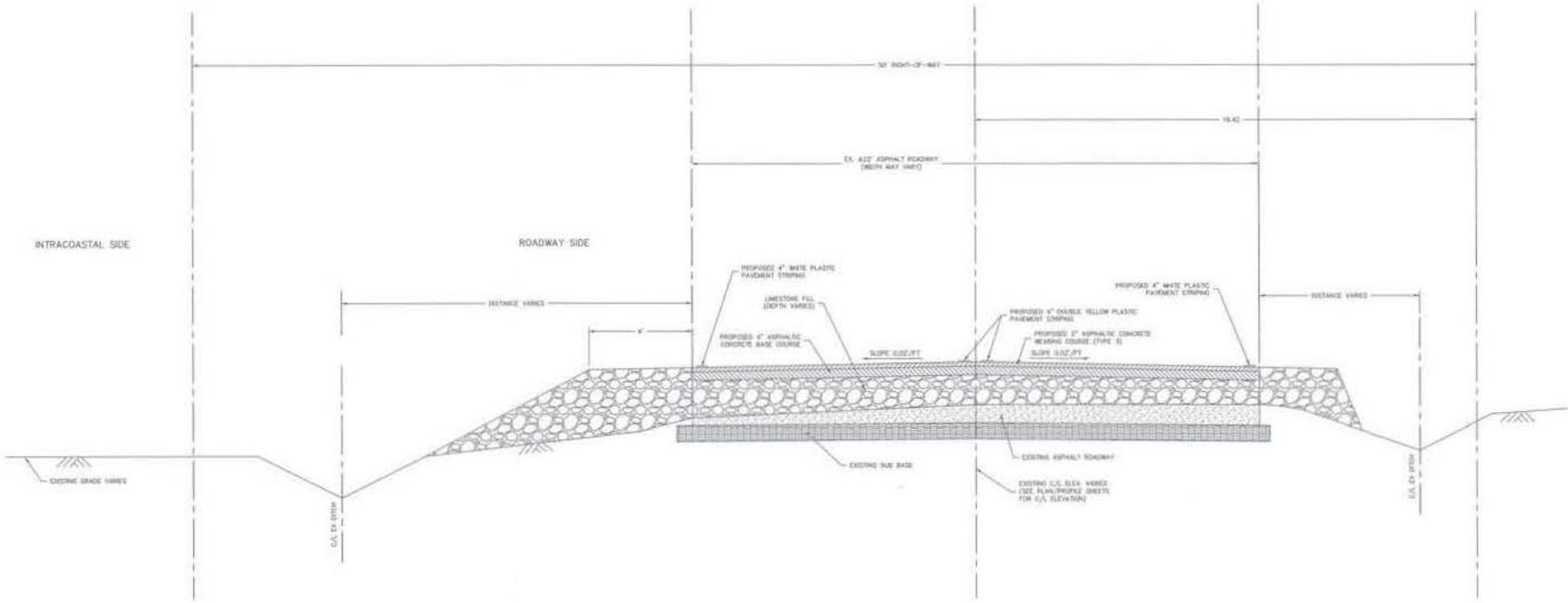
FILE: 060035\FOR APPROVAL\01-SHT-09-10.dwg

NO.	REVISION	DATE
1	GENERAL REVISION	12-28-11

**Angelette • Picciola, LLC**  
 CONSULTING ENGINEERS & SURVEYORS  
 13375 HWY 3275 - CDT OFF, LA 70345  
 P.O. BOX 970 - LAROSE, LA 70373  
 PHONE 504/7677200 FAX 504/7677755  
 DESIGNED BY: L.J.P. DRAWN BY: S.M.S. CHECKED BY: L.J.P.



LAFOURCHE PARISH GOVERNMENT		SCALE: SHOWN
TYPICAL SECTION - FLOODWALL		DATE: 4-28-11
LAROSE, LOUISIANA		PROJECT: 060035
LAFOURCHE PARISH		SHEET NO: 9 OF 14



TYPICAL SECTION  
 ASPHALT OVERLAY  
 SCALE 1" = 4'-0"

**FOR APPROVAL**

NO.	REVISION	DATE

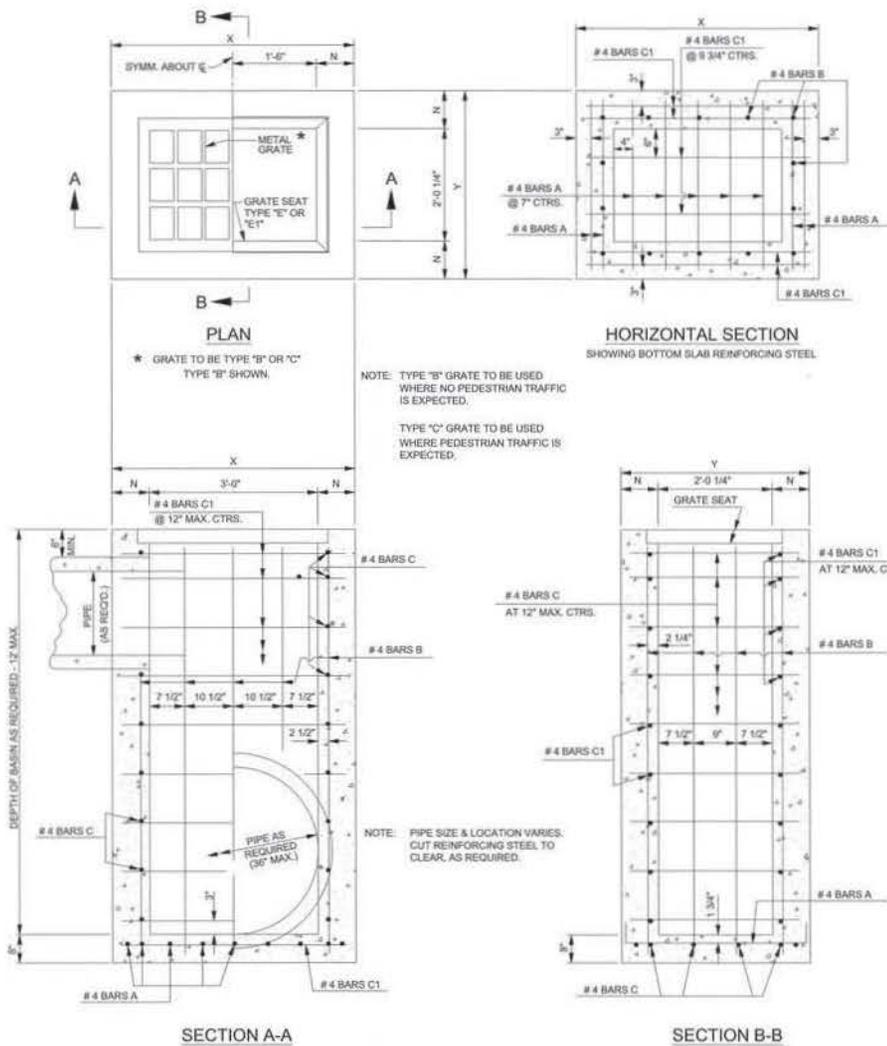
**Angelette • Picciola, LLC**  
 CONSULTING ENGINEERS & SURVEYORS  
 13275 HWY 3235 - CLUT OFF, LA 70345  
 P.O. BOX 870 - LAROSE, LA 70353  
 PHONE: 985.726.7126 FAX: 985.726.7125

DESIGNED BY: L.J.P. DRAWN BY: E.M.C. CHECKED BY: L.J.P.

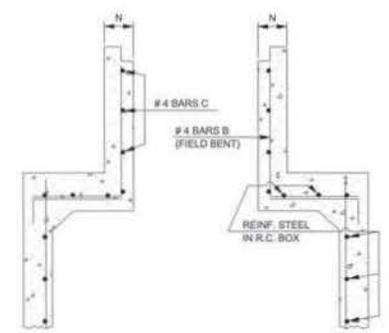
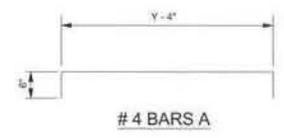
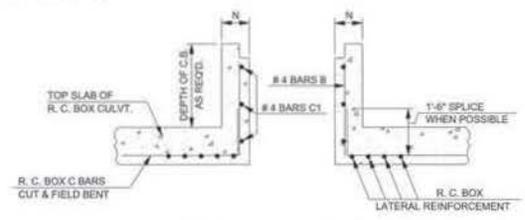


<b>LAFORCHE PARISH GOVERNMENT</b>		DATE: 4-28-11
TYPICAL SECTION - ASPHALT OVERLAY		PROJECT: 0900339
LAROSE, LOUISIANA	LAFORCHE PARISH	SHEET NO. 10 OF 14





DIMENSIONS			
DEPTH OF BASIN	N	X	Y
FT.	IN.	FT. - IN.	FT. - IN.
0-8	7	4-2	5-2 1/4
8.1-12	8	4-4	5-4 1/4



**GENERAL NOTES:**  
 SECTION 750 OF THE CURRENT DOTD STANDARD SPECIFICATIONS SHALL APPLY.  
 DIMENSIONS RELATING TO REINFORCING STEEL ARE TO BAR CENTERS.  
 VERTICAL REINFORCING STEEL MAY BE SPICED. SPICE LENGTH IS 35 DIAMETERS.  
 FOR DETAILS OF GRATE AND SEAT, SEE STD. PLAN MC-01 (TYPE B or C).  
 SEE PLANS FOR TYPE OR GRATE TO BE USED FOR EACH CATCH BASIN.

**FOR APPROVAL**

NO.	REVISION	DATE
1	GENERAL REVISIONS	12-28-11

**Angelette • Picciola, LLC**  
 CONSULTING ENGINEERS & SURVEYORS  
 13075 HWY 3236 - CUIT OFF. LA 70348  
 P.O. BOX 978 - LAFOURCHE, LA 70373  
 PHONE: 985-769-7752 FAX: 985-769-7758  
 DESIGNED BY: L.J.P. DRAWN BY: A.J.L. CHECKED BY: N.E.A.



**LAFORCHE PARISH GOVERNMENT**  
 CB-01 DETAILS  
 SCALE: N.T.S.  
 DATE: 4-28-11  
 PROJECT: 080039  
 SHEET NO.: 12 OF 14  
 LAFORCHE, LOUISIANA LAFORCHE PARISH

## **Appendix No. 3**

Figures (Physical Resources)



September 17, 2013

Mr. Charles Guillory  
USDA NRCS – Soils Section  
3737 Government St.  
Alexandria, LA 71302

**RE: Lafourche Parish Govt. – Industrial Park Rd. Floodwall & North Intracoastal  
Drainage Improvements  
Larose, LA  
Lafourche Parish, Louisiana**

Dear Mr. Guillory:

KEE Environmental Services, LLC is requesting a review and comment from your agency regarding the above referenced project. This information will be utilized for a FEMA NEPA Environmental Assessment being conducted for the project. The project will consist of construction of a floodwall structure and pump station as well as improvements to existing drainage ditches located with the area depicted on the attached drawing.

Should you have any questions and/or comments concerning this matter, please contact me at 985-413-2116 or by email at [ctoups@keeenv.com](mailto:ctoups@keeenv.com). Response letters may be returned to my attention via email or mailed to the address at the bottom of this page.

Sincerely,

**KEE Environmental, LLC**

A handwritten signature in black ink, appearing to read "Cy J. Toups".

Cy J. Toups, P.E.  
Project Manager

United States Department of Agriculture



Natural Resources Conservation Service  
3737 Government Street  
Alexandria, LA 71302

(318) 473-7751  
Fax: (318) 473-7626

September 23, 2013

Cy J. Toups, P.E.  
Project Manager  
ctoups@keeenv.com  
KEE Environmental Services, LLC  
1463 St. Charles Street, Suite 800  
Houma, Louisiana 70360

RE: Lafourche Parish Govt. – Industrial Park Rd. Floodwall & North Intracoastal  
Drainage Improvements  
Larose, LA  
Lafourche Parish, LA

Dear Mr. Toups:

I have reviewed the above referenced project for potential requirements of the Farmland Protection Policy Act (FPPA) and potential impact to Natural Resources Conservation Service (NRCS) projects in the immediate vicinity.

Projects are subject to FPPA requirements if they may irreversibly convert farmland (directly or indirectly) to nonagricultural use and are completed by a federal agency or with assistance from a federal agency. For the purpose of FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance. Farmland subject to FPPA requirements can be forest land, pastureland, cropland, or other land, but not water or urban built-up land.

The project map submitted with your request indicates that the proposed construction areas are within urban areas and therefore is exempt from the rules and regulations of the Farmland Protection Policy Act (FPPA)—Subtitle I of Title XV, Section 1539-1549. Furthermore, we predict no impact to NRCS projects in the vicinity.

No identified cultural resources will be impacted by the above mentioned project.

For specific information about the soils found in the project area, please visit our Web Soil Survey at the following location:

<http://websoilsurvey.nrcs.usda.gov/>

Please direct all future correspondence to me at the address shown above.

Respectfully,

 ACTING FOR

Sarah Haymaker  
State Conservationist

*Helping People Help the Land*

An Equal Opportunity Provider and Employer

Soil Map—Lafourche Parish, Louisiana

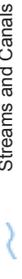
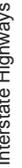


Map Scale: 1:16,100 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

## MAP LEGEND

 Area of Interest (AOI)	 Spoil Area
 Soil Map Unit Polygons	 Stony Spot
 Soil Map Unit Lines	 Very Stony Spot
 Soil Map Unit Points	 Wet Spot
 <b>Special Point Features</b>	 Other
 Blowout	 Special Line Features
 Borrow Pit	 <b>Water Features</b>
 Clay Spot	 Streams and Canals
 Closed Depression	 <b>Transportation</b>
 Gravel Pit	 Rails
 Gravelly Spot	 Interstate Highways
 Landfill	 US Routes
 Lava Flow	 Major Roads
 Marsh or swamp	 Local Roads
 Mine or Quarry	 <b>Background</b>
 Miscellaneous Water	 Aerial Photography
 Perennial Water	
 Rock Outcrop	
 Saline Spot	
 Sandy Spot	
 Severely Eroded Spot	
 Sinkhole	
 Slide or Slip	
 Sodic Spot	

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000. Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>  
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Lafourche Parish, Louisiana  
 Survey Area Data: Version 7, Jul 1, 2009

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 29, 2010—Jan 3, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

Lafourche Parish, Louisiana (LA057)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Cm	Cancienne silt loam	143.5	18.8%
Co	Cancienne silty clay loam	93.0	12.2%
FA	Fausse-Schriever association	9.2	1.2%
Ra	Rita muck	191.3	25.0%
Sk	Schriever clay	319.5	41.8%
W	Water	8.0	1.0%
<b>Totals for Area of Interest</b>		<b>764.4</b>	<b>100.0%</b>

## Lafourche Parish, Louisiana

### Cm—Cancienne silt loam

#### Map Unit Setting

*Elevation:* 0 to 120 feet

*Mean annual precipitation:* 45 to 80 inches

*Mean annual air temperature:* 59 to 79 degrees F

*Frost-free period:* 246 to 331 days

#### Map Unit Composition

*Cancienne and similar soils:* 85 percent

#### Description of Cancienne

##### Setting

*Landform:* Natural levees

*Down-slope shape:* Convex

*Across-slope shape:* Linear

##### Properties and qualities

*Slope:* 0 to 1 percent

*Depth to restrictive feature:* More than 80 inches

*Drainage class:* Somewhat poorly drained

*Capacity of the most limiting layer to transmit water*

*(Ksat):* Moderately high (0.20 to 0.60 in/hr)

*Depth to water table:* About 18 to 48 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Available water capacity:* Very high (about 13.0 inches)

##### Interpretive groups

*Farmland classification:* All areas are prime farmland

*Land capability (nonirrigated):* 2w

*Hydrologic Soil Group:* C

##### Typical profile

*0 to 15 inches:* Silt loam

*15 to 36 inches:* Silty clay loam

*36 to 60 inches:* Stratified very fine sandy loam to silty clay

## Data Source Information

Soil Survey Area: Lafourche Parish, Louisiana

Survey Area Data: Version 7, Jul 1, 2009

## Lafourche Parish, Louisiana

### Co—Cancienne silty clay loam

#### Map Unit Setting

*Elevation:* 0 to 120 feet

*Mean annual precipitation:* 45 to 80 inches

*Mean annual air temperature:* 59 to 79 degrees F

*Frost-free period:* 246 to 331 days

#### Map Unit Composition

*Cancienne and similar soils:* 85 percent

#### Description of Cancienne

##### Setting

*Landform:* Natural levees

*Down-slope shape:* Convex

*Across-slope shape:* Linear

##### Properties and qualities

*Slope:* 0 to 1 percent

*Depth to restrictive feature:* More than 80 inches

*Drainage class:* Somewhat poorly drained

*Capacity of the most limiting layer to transmit water*

*(Ksat):* Moderately high (0.20 to 0.60 in/hr)

*Depth to water table:* About 18 to 48 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Available water capacity:* Very high (about 12.5 inches)

##### Interpretive groups

*Farmland classification:* All areas are prime farmland

*Land capability (nonirrigated):* 2w

*Hydrologic Soil Group:* C

##### Typical profile

*0 to 11 inches:* Silty clay loam

*11 to 22 inches:* Silt loam

*22 to 60 inches:* Stratified very fine sandy loam to silty clay

## Data Source Information

Soil Survey Area: Lafourche Parish, Louisiana

Survey Area Data: Version 7, Jul 1, 2009

## Lafourche Parish, Louisiana

### FA—Fausse-Schriever association

#### Map Unit Setting

*Elevation:* 0 to 80 feet

*Mean annual precipitation:* 45 to 80 inches

*Mean annual air temperature:* 59 to 79 degrees F

*Frost-free period:* 246 to 331 days

#### Map Unit Composition

*Fausse and similar soils:* 65 percent

*Schriever and similar soils:* 20 percent

#### Description of Fausse

##### Setting

*Landform:* Backswamps

*Down-slope shape:* Concave

*Parent material:* Clayey alluvium

##### Properties and qualities

*Slope:* 0 to 1 percent

*Depth to restrictive feature:* More than 80 inches

*Drainage class:* Very poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Very low  
to moderately low (0.00 to 0.06 in/hr)

*Depth to water table:* About 0 inches

*Frequency of flooding:* Frequent

*Frequency of ponding:* None

*Available water capacity:* High (about 11.7 inches)

##### Interpretive groups

*Farmland classification:* Not prime farmland

*Land capability (nonirrigated):* 7w

*Hydrologic Soil Group:* D

##### Typical profile

*0 to 5 inches:* Clay

*5 to 25 inches:* Clay

*25 to 60 inches:* Clay

#### Description of Schriever

##### Setting

*Landform:* Backswamps

*Down-slope shape:* Linear

*Across-slope shape:* Linear

##### Properties and qualities

*Slope:* 0 to 1 percent

*Depth to restrictive feature:* More than 80 inches

*Drainage class:* Poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Very low  
to moderately low (0.00 to 0.06 in/hr)  
*Depth to water table:* About 0 to 24 inches  
*Frequency of flooding:* FrequentNone  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 5 percent  
*Available water capacity:* Moderate (about 8.2 inches)

**Interpretive groups**

*Farmland classification:* Not prime farmland  
*Land capability (nonirrigated):* 5w  
*Hydrologic Soil Group:* D

**Typical profile**

*0 to 6 inches:* Clay  
*6 to 25 inches:* Clay  
*25 to 60 inches:* Clay

## Data Source Information

Soil Survey Area: Lafourche Parish, Louisiana  
Survey Area Data: Version 7, Jul 1, 2009

## Lafourche Parish, Louisiana

### Ra—Rita muck

#### Map Unit Setting

*Mean annual precipitation:* 54 to 80 inches  
*Mean annual air temperature:* 59 to 79 degrees F  
*Frost-free period:* 246 to 331 days

#### Map Unit Composition

*Rita and similar soils:* 80 percent

#### Description of Rita

##### Setting

*Landform:* Marshes  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Nonfluid over fluid clayey alluvium

##### Properties and qualities

*Slope:* 0 to 1 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Poorly drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.06 in/hr)  
*Depth to water table:* About 12 to 36 inches  
*Frequency of flooding:* Rare  
*Frequency of ponding:* None  
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 4.0 mmhos/cm)  
*Available water capacity:* High (about 11.8 inches)

##### Interpretive groups

*Farmland classification:* Not prime farmland  
*Land capability (nonirrigated):* 3w  
*Hydrologic Soil Group:* D

##### Typical profile

*0 to 4 inches:* Muck  
*4 to 30 inches:* Clay  
*30 to 43 inches:* Clay  
*43 to 68 inches:* Loamy very fine sand

## Data Source Information

Soil Survey Area: Lafourche Parish, Louisiana  
Survey Area Data: Version 7, Jul 1, 2009

## Lafourche Parish, Louisiana

### Sk—Schriever clay

#### Map Unit Setting

*Elevation:* 0 to 80 feet

*Mean annual precipitation:* 45 to 80 inches

*Mean annual air temperature:* 59 to 79 degrees F

*Frost-free period:* 246 to 331 days

#### Map Unit Composition

*Schriever and similar soils:* 85 percent

#### Description of Schriever

##### Setting

*Landform:* Backswamps

*Down-slope shape:* Linear

*Across-slope shape:* Linear

##### Properties and qualities

*Slope:* 0 to 1 percent

*Depth to restrictive feature:* More than 80 inches

*Drainage class:* Poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Very low  
to moderately low (0.00 to 0.06 in/hr)

*Depth to water table:* About 0 to 24 inches

*Frequency of flooding:* Rare

*Frequency of ponding:* None

*Calcium carbonate, maximum content:* 5 percent

*Available water capacity:* Moderate (about 8.1 inches)

##### Interpretive groups

*Farmland classification:* All areas are prime farmland

*Land capability (nonirrigated):* 3w

*Hydrologic Soil Group:* D

##### Typical profile

*0 to 9 inches:* Clay

*9 to 35 inches:* Clay

*35 to 60 inches:* Clay

## Data Source Information

Soil Survey Area: Lafourche Parish, Louisiana

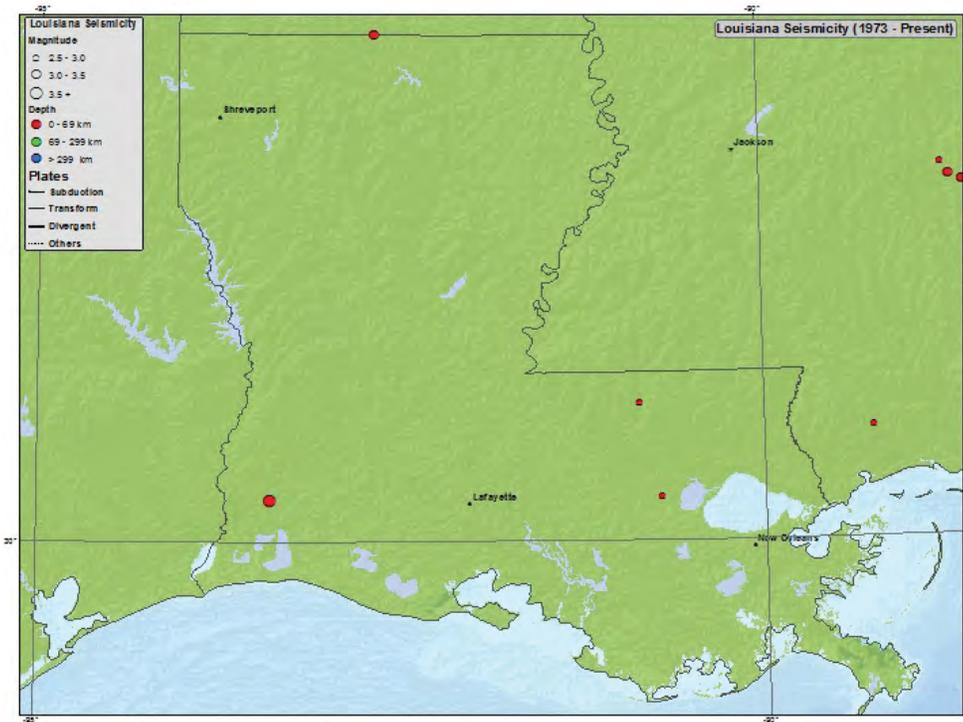
Survey Area Data: Version 7, Jul 1, 2009



Earthquake Hazards Program

# Louisiana

## Seismicity Map - 1973 to Present



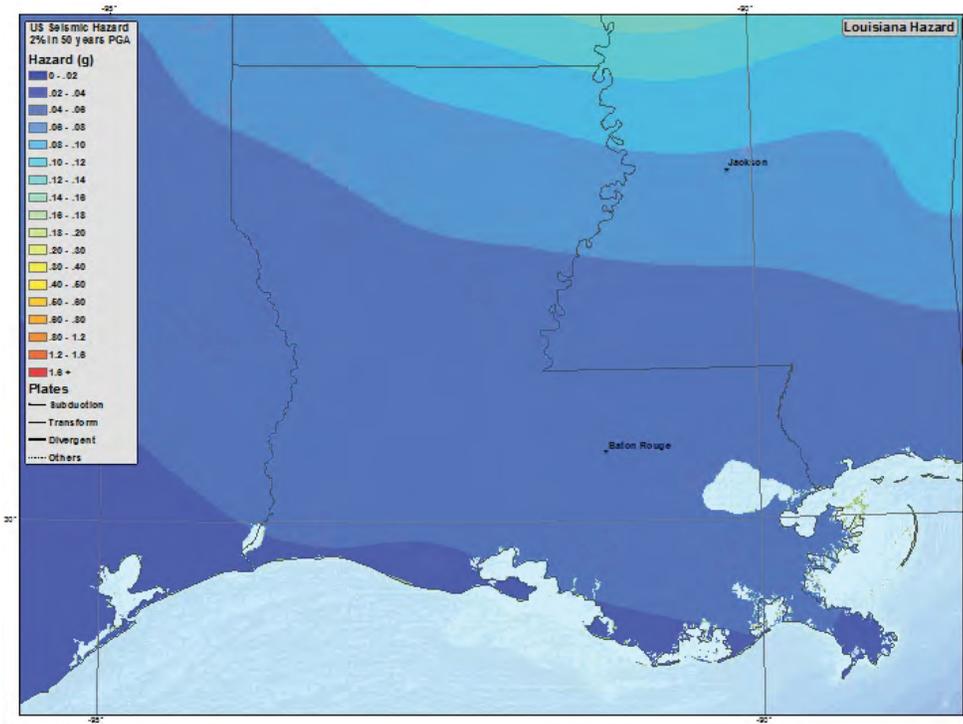
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Earthquake Hazards Program

Louisiana

Seismic Hazard Map



[USGS National Seismic Hazard Maps](#)

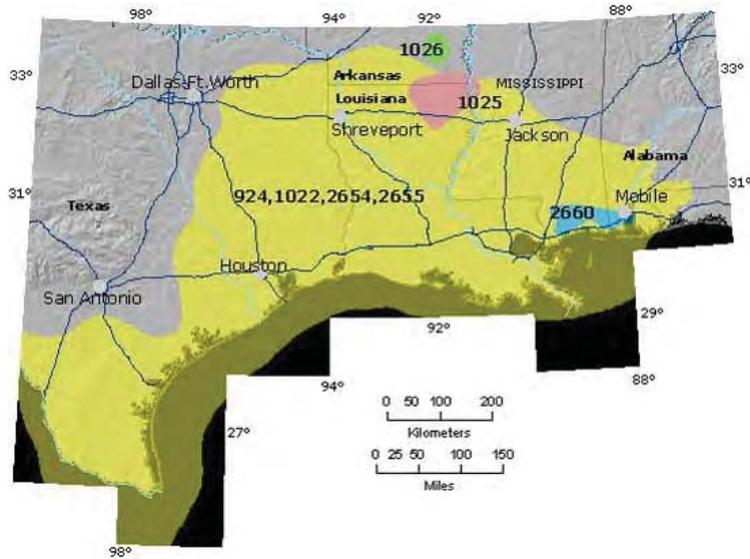
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## Earthquake Hazards Program

## Gulf of Mexico coastal region

## Areas of Quaternary deformation and faulting



Use the number and/or name in the [Database Search](#) to get more information about a fault.

Number	Name
924	Gulf-margin normal faults, Texas
1022	Gulf-margin normal faults, Louisiana and Arkansas
1025	Monroe uplift
1026	Saline River fault zone
2654	Gulf-margin normal faults, Alabama and Florida
2655	Gulf-margin normal faults, Mississippi
2660	Wiggins uplift

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### Geologic and Hydrogeologic Setting:

The herein described property is located in the Gulf Coastal Plain physiographic province (Fenneman, 1983). It lies along the northern side of the gulf coast geosyncline and across the axis of the Mississippi structural trough (Fig. 1). The area is characterized by off-lapping, coastward thickening wedges of fluvial, deltaic, and marine sediments. The last major transgression of the sea across the area occurred during Eocene and Oligocene time, when extensive beds of clay, silt, and lime were deposited to form the Jackson and Vicksburg Groups. The southern edge of the outcrop-subcrop area of the Jackson and Vicksburg Groups delineates the northern boundary of the study area shown in Figure 1. Deltaic processes have been dominant during deposition of the sediments above the Jackson and Vicksburg Groups. Advancing deltaic fronts pushed the shoreline and its associated beach, dune, and lagoonal deposits seaward while blankets of fluvial sediments were deposited on the coastal plain inland, and extensive marine deposits formed offshore. The entire sequence of sediments above the Jackson and Vicksburg Groups has been named the Coastal Lowlands aquifer system (Grubb, 1984). The undifferentiated sequence of clay, silt, and lime beds of the Jackson and Vicksburg Groups below the Coastal Lowlands aquifer system has been named the Vicksburg-Jackson confining unit.

The Coastal Lowlands aquifer system of Louisiana, Mississippi, Alabama, and Florida is an off-lapping sequence of fluvial, deltaic, and marine deposits of Miocene age and younger. The aquifer system consists of alternating, discontinuous beds of sand, gravel, silt, and clay that thicken and dip southward toward the Gulf of Mexico. The sediments are highly heterogeneous with few individual sand beds that can be traced for more than a few miles. The aquifer system is underlain by the Vicksburg-Jackson confining unit, a marine clay sequence of the Jackson and Vicksburg Groups.

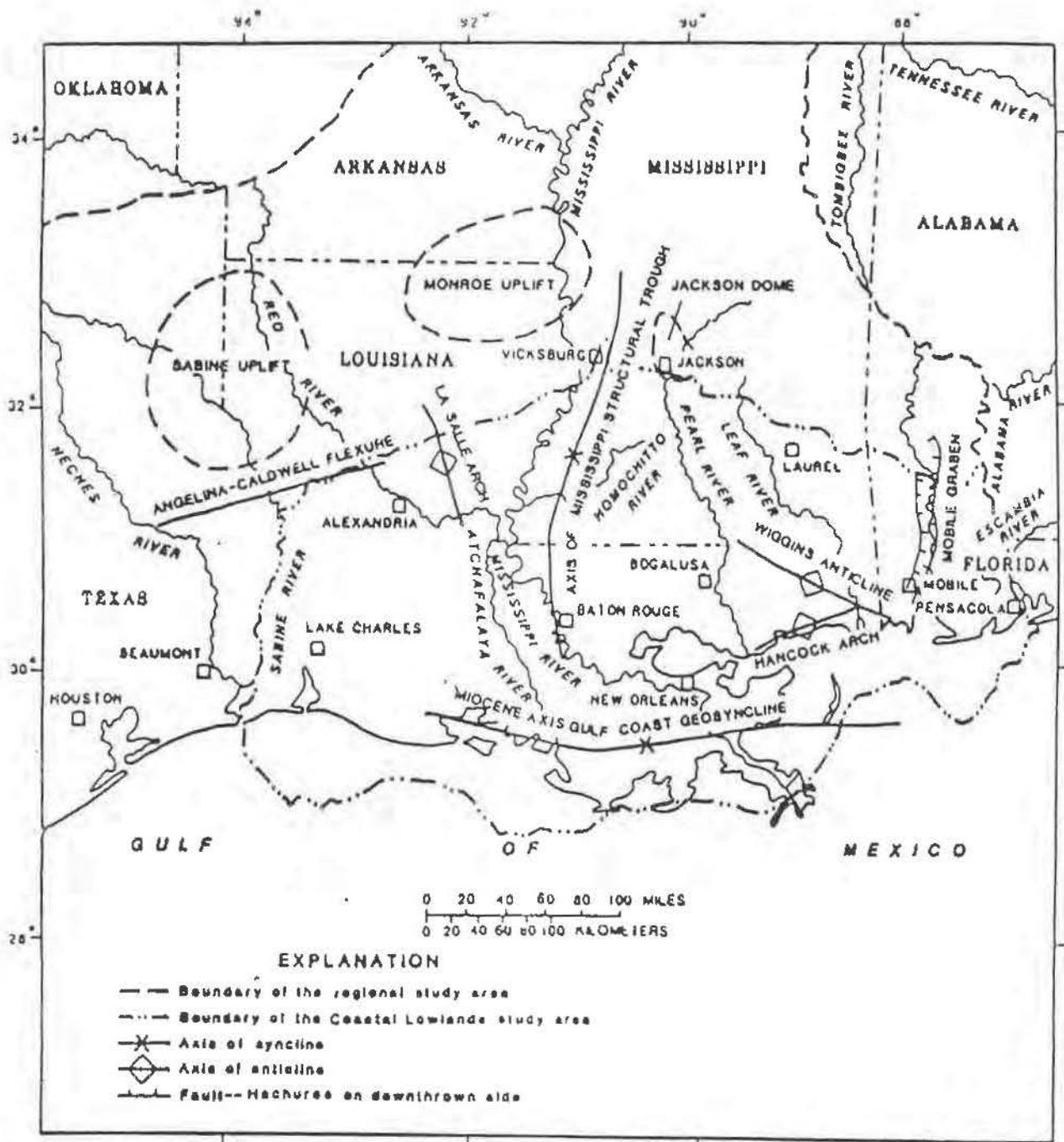


Figure 1.--Location of the study area and major structural features in and near the study area.

Source: U.S. Geological Survey - Water Resources Investigations Report 88-4100

The Coastal Lowlands aquifer system is subdivided into five regional aquifers. Electric logs of 279 wells were analyzed to construct maps of aquifers thickness, sand and clay content, and dissolved-solids concentrations of interstitial water. The regional aquifers were defined on the basis of water-level and pumpage data from heavily pumped areas and extended into lesser-developed areas by extrapolating aquifer thicknesses. The aquifers, from youngest to oldest are the upper Pleistocene aquifer, the lower Pleistocene-upper Pliocene aquifer, the lower Pliocene-upper Miocene aquifer, the middle Miocene aquifer, and the lower Miocene aquifer. In this study, the base of the ground-water flow system is defined as the shallower of either the top of the Vicksburg-Jackson confining unit or the bottom of the deepest layer overlying the confining unit containing water with no more than 1,000 mg/L average dissolved solids.

Sand thickness in the flow system increases from zero along the northern edge of the aquifer system to almost 3,000 ft in a small area in southeastern Louisiana. Sand content ranges from less than 10 percent to greater than 90 percent.

Hydraulic characteristics of the regional aquifers were determined from analysis of aquifer-test data. The analysis indicates that on average the upper Pleistocene aquifer has the highest lateral hydraulic conductivity (203 ft/d) and the lower Miocene aquifer has the lowest (51 ft/d).

A six-layer finite-difference groundwater flow model is being used to investigate and quantify the regional flow of the Coastal Lowlands aquifer system. The model is being calibrated by steady-state simulation to match 1980 conditions. The model in its present state generally reproduces the ground-water hydraulic gradients and the major cones of depression shown by maps of measured water-level altitudes. Results indicate that pumpage is a major control on flow in the aquifer system under 1980 conditions; about 66 percent of the water entering the flow system is discharged by pumpage. Pumping for industry, public supply, and

irrigation under 1980 conditions produced cones of depression that distorted or reversed the predevelopment flow pattern. Total pumpage from the modeled area in 1980 was about 252.4 Mft<sup>3</sup>/d or 4 percent of the total pumpage, is from the lower Miocene aquifer.

Removal of pumpage from the model allows simulation of predevelopment conditions. Regional flow of ground water in the Coastal Lowlands aquifer system under predevelopment conditions was primarily from recharge areas in the uplands of central Louisiana and southwestern Mississippi toward discharge areas along the coast and in the major river valleys. Results indicate that under predevelopment conditions most of the flow occurred in the upper part of the aquifer system. About 35 percent (70.2 Mft<sup>3</sup>/d) of the total flow in the aquifer system (202.4 Mft<sup>3</sup>/d) circulated in model layer 2, representing the upper Pleistocene aquifer, and about 31 percent (63.4 Mft<sup>3</sup>/d) circulated in the outcrop areas of layers 3 through 6, representing the older regional aquifers.

Figure 2 depicts the generalized north to south geohydrologic section from southwestern Mississippi to the Gulf of Mexico. Figure 3 depicts regional water table contours. Figure 4 depicts a schematic drawing of the north south cross section of the Coastal Lowlands aquifer system showing the distribution of flow between and within layers under predeveloped conditions. Figure 5 depicts a schematic drawing of the north-south cross section of the Coastal Lowlands aquifer system showing the distribution of flow between and within layers under 1980 conditions, treated as steady state. Figure 6 depicts the ground water flow under predevelopment conditions in the upper Pleistocene aquifer. Figure 7 depicts the ground water flow under 1980 conditions, treated as steady state, in the upper Pleistocene aquifer.

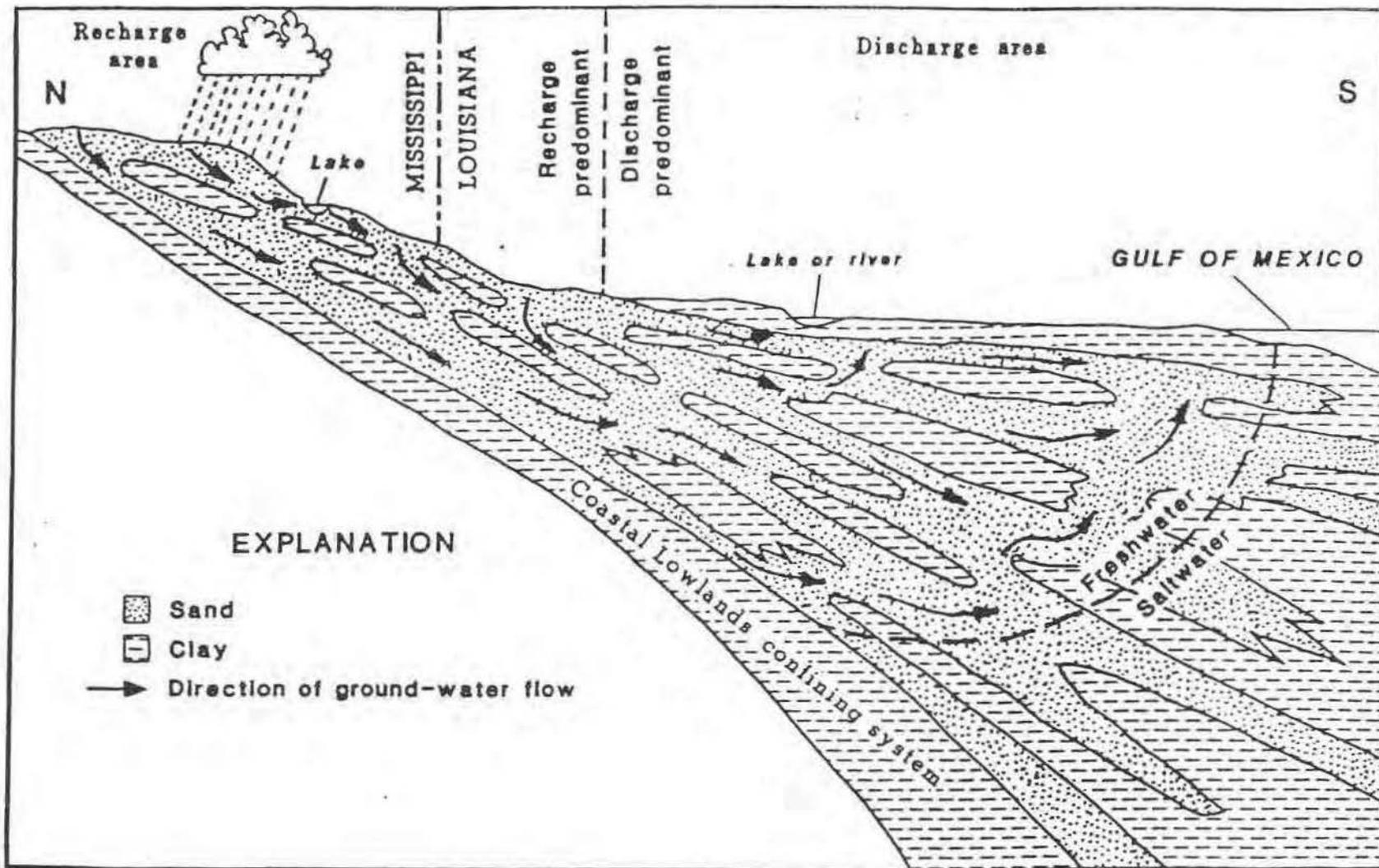


Figure 2.--Generalized north-south geohydrologic section from southwestern Mississippi to the Gulf of Mexico.

Source: U.S. Geological Survey - Water Resources Investigations Report 88-4100

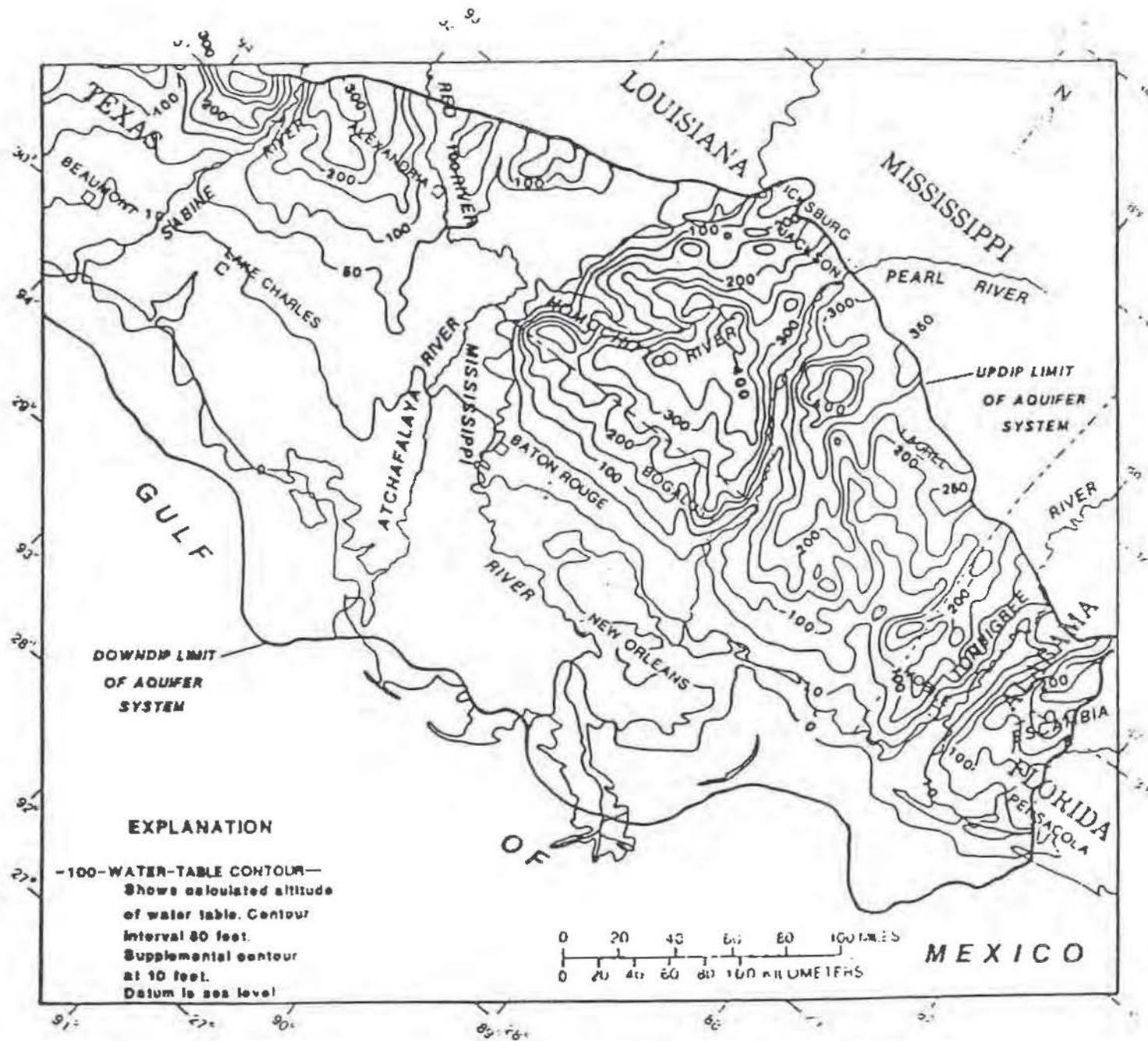


Figure 3.--The calculated altitude of the water table.

Source: U.S. Geological Survey - Water Resources Investigations Report 88-4100



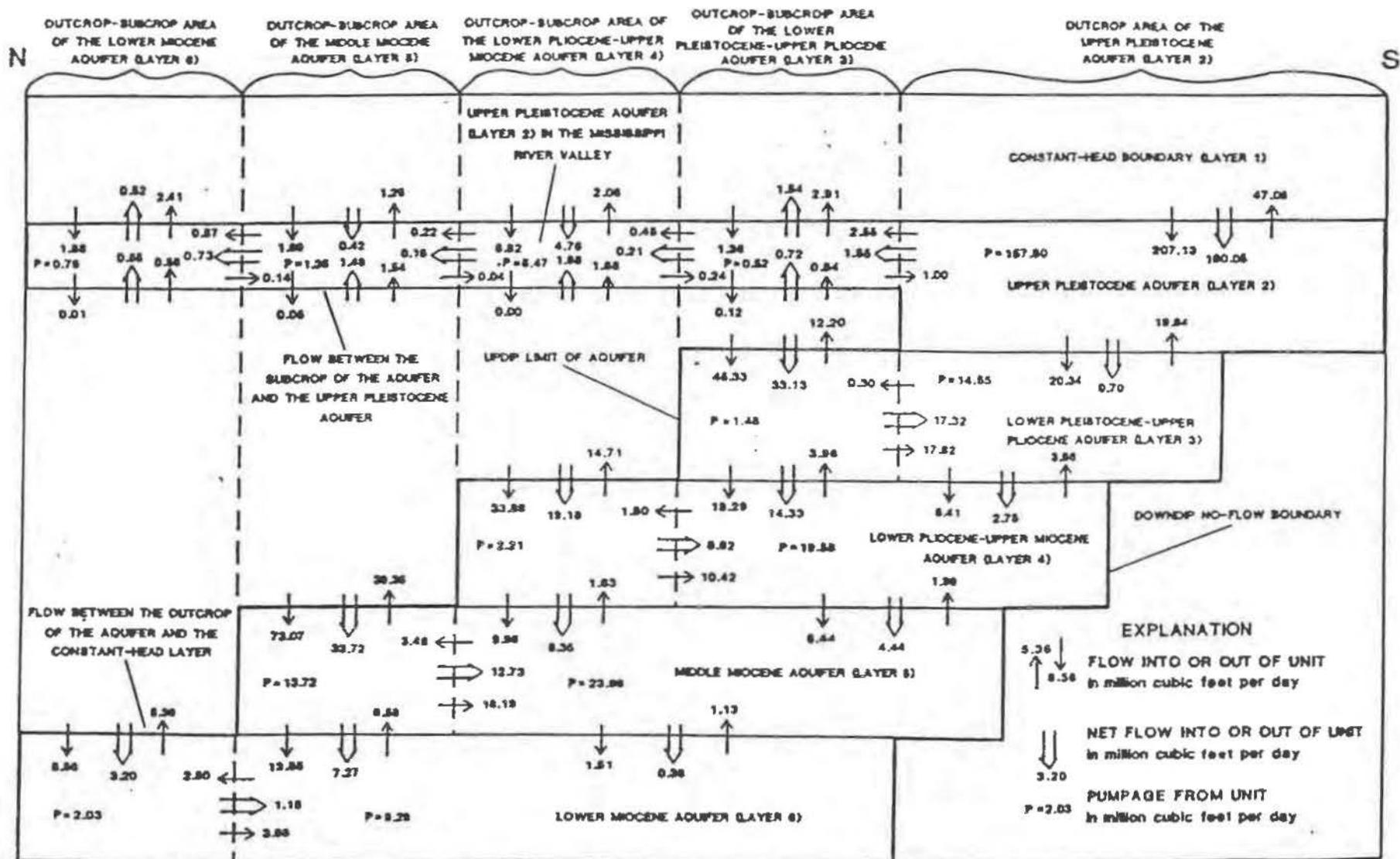
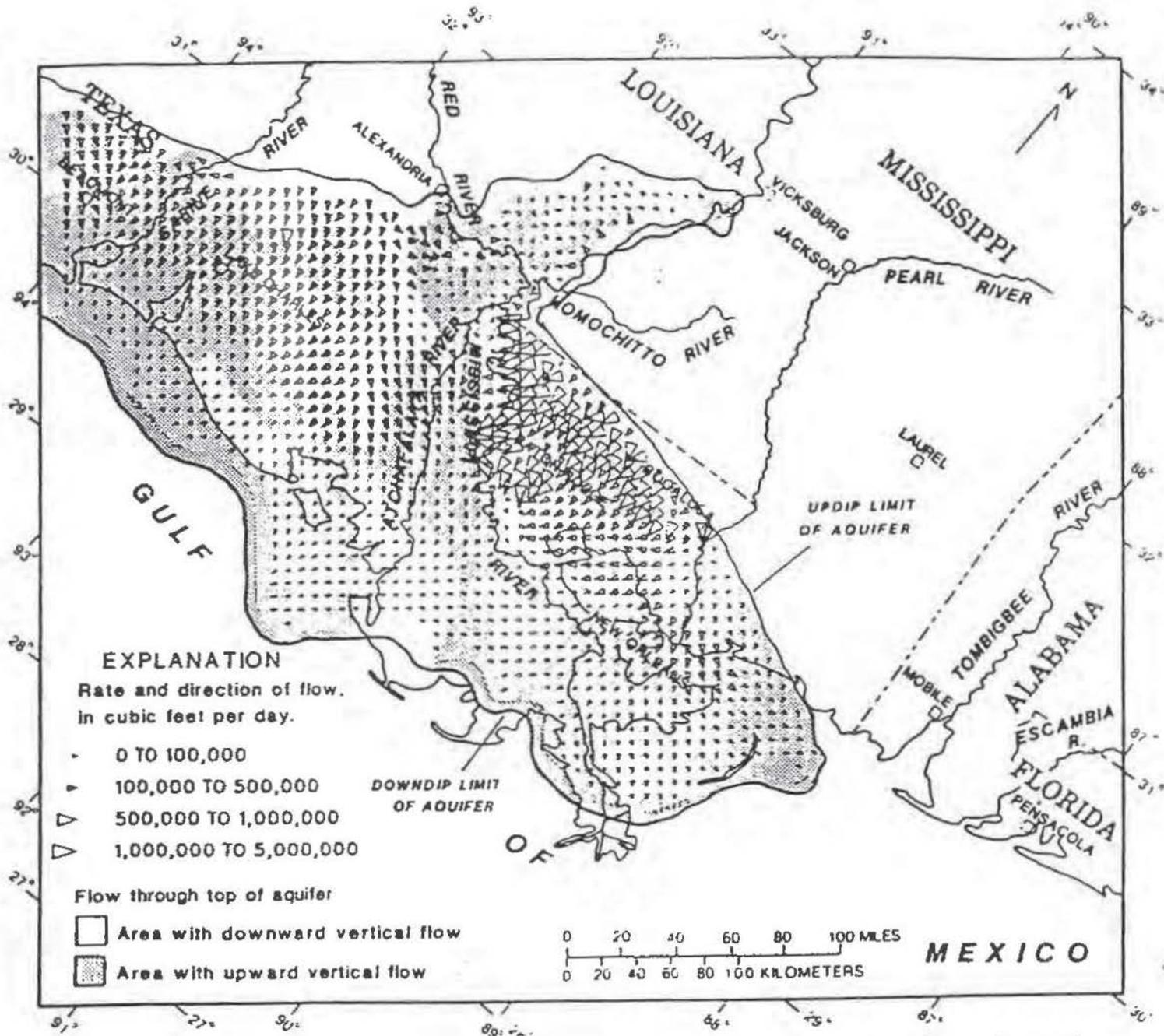


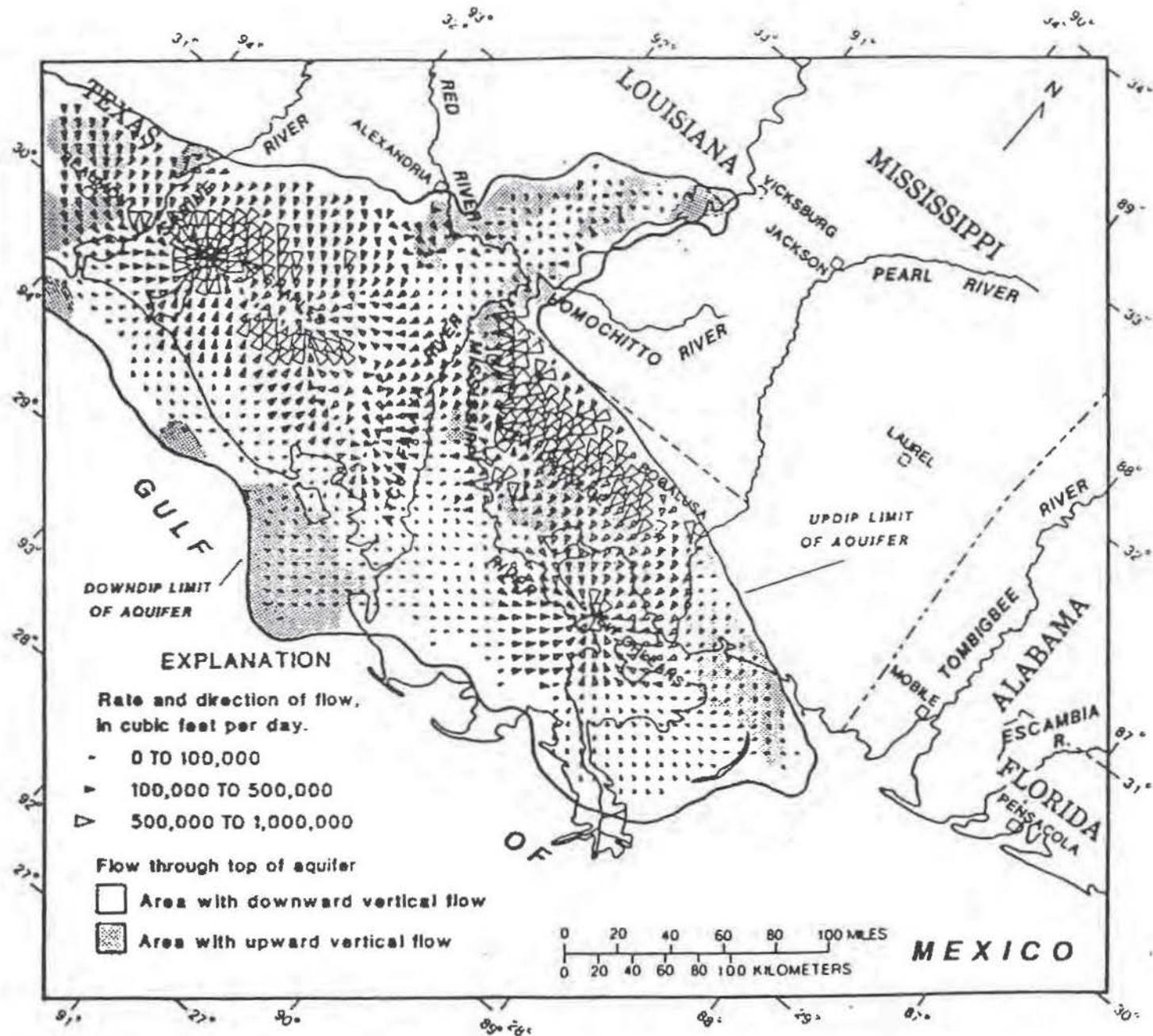
Figure 5.--Schematic north-south cross section of the Coastal Lowlands aquifer system showing the distribution of flow between and within layers under 1980 conditions, treated as steady state.

Source: U.S. Geological Survey - Water Resources Investigations Report 88-4100



Source: U.S. Geological Survey - Water Resources Investigations Report 88-4100

Figure 6.--Ground-water flow under predevelopment conditions in the upper Pleistocene aquifer (model layer 2).



Source: U.S. Geological Survey - Water Resources Investigations Report 88-4100

Figure 7.--Ground-water flow under 1980 conditions, treated as steady state, in the upper Pleistocene aquifer (model layer 2).



Source: Diesel Driven Drainage Pumps  
Source ID: N/A

**Discussion**

This point includes the emissions associated with two 270 hp diesel driven pumps which meet Tier 3 EPA Emissions Standards

**Emissions Basis**

Fuel Usage <sup>[1]</sup> :	7,000	BTU/bhp-hr
Hours of operation:	2000	hr/yr
Engine Power	270	bhp
Heat Input:	1.89	MMBTU/hr
Design Efficiency:	0%	

**Formulas**

Pollutant (lb/hr) = (EPA Emission Factor \* Hp \* Operating Hrs) or (AP 42 Emission Factor \* Heat Input)

**Emissions Summary**

Pollutant	Emission Factor <sup>(2,3)</sup> (g/hp-hr & lb/MMBTU)	Hourly Average Emissions (lb/hr)	Hourly Maximum Emissions <sup>(4)</sup> (lb/hr)	Annual Emissions (tpy)
NO <sub>x</sub>	3	1.7857	1.9643	1.7857
CO	2.6	1.5476	1.7024	1.5476
PM/PM <sup>2.5</sup>	0.15	0.0893	0.0982	0.0893
CO <sub>2</sub>	510	303.5714	333.9286	303.5714
SO <sub>2</sub>	2.90E-01	0.5481	0.6029	0.5481
VOC	3.50E-01	0.6615	0.7277	0.6615
Benzene	9.30E-04	0.0018	0.0019	0.0018
Toluene	4.09E-04	0.0008	0.0009	0.0008
Ethyl-Benz	0.0000248	0.0000	5.16E-05	0.0000
Xylene	2.85E-04	0.0005	0.0006	0.0005
Formaldehyde	1.18E-03	0.0022	0.0025	0.0022
Acetaldehyde	7.67E-04	0.0014	0.0016	0.0014
Acrolein	9.25E-05	0.0002	0.0002	0.0002
Napthalene	8.48E-05	0.0002	0.0002	0.0002

**Notes**

- (1) Fuel Usage of diesel engine estimated at 7,000 Btu/hp-hr (AP-42 3.3-1)
- (2) Emission factors for NO<sub>x</sub>, CO, and PM taken from EPA Tier 3 Emission standards for Non-road diesel engines
- (3) Emission factor from AP-42, Tables 3.3.1
- (4) Hourly Maximum Emissions are assumed to be equal to 1.1 times the Hourly Avg. Emissions.

You are here: DIVISIONS » [Air Permits, Engineering and Planning \(http://www.deq.louisiana.gov/portal/DIVISIONS/AirPermitsEngineeringandPlanning.aspx\)](http://www.deq.louisiana.gov/portal/DIVISIONS/AirPermitsEngineeringandPlanning.aspx) » **Nonattainment New Source Review Permits** (<http://www.deq.louisiana.gov/portal/DIVISIONS/AirPermitsEngineeringandPlanning/NonattainmentNewSourceReviewPermits.aspx>)

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## Nonattainment New Source Review (NNSR) Permits

The Nonattainment New Source Review (NNSR) program applies to the construction of new major stationary sources and to major modifications of existing major stationary sources where such new source or modification will be located in a nonattainment area for the regulated pollutant for which the source is major. In other words, the source must be major for the same regulated pollutant for which the area is designated nonattainment (i.e., ambient concentrations of that pollutant are not compliant with its National Ambient Air Quality Standard (NAAQS)). NNSR also applies to modifications of existing minor stationary sources if the modification itself would constitute a major source.

NNSR procedures are set forth in LAC 33:III.504. Affected parishes, pollutants, and nonattainment designations are provided in the following table.

Parish [1]	Nonattainment for	Designation
Ascension	8-hour Ozone	Marginal
East Baton Rouge	8-hour Ozone	Marginal
Iberville	8-hour Ozone	Marginal
Livingston	8-hour Ozone	Marginal
West Baton Rouge	8-hour Ozone	Marginal

VOC is regulated as a surrogate for ozone. On December 20, 2001 (upon the promulgation of amendments to §504), the Baton Rouge Nonattainment Area's Clean Air Act Section 182(f) NO<sub>x</sub> exemption was effectively rescinded.[2] Therefore, both VOC and NO<sub>x</sub> are regulated as nonattainment pollutants because both have been determined to contribute to tropospheric ozone formation. However, ambient concentrations of particulate, SO<sub>2</sub>, NO<sub>x</sub>, and CO are in compliance with their respective NAAQS; therefore, emissions of these pollutants are evaluated pursuant to [Prevention of Significant Deterioration \(PSD\) \(/portal/DIVISIONS/AirPermitsEngineeringandPlanning/PreventionofSignificantDeteriorationPermits.aspx\)](http://www.deq.louisiana.gov/portal/DIVISIONS/AirPermitsEngineeringandPlanning/PreventionofSignificantDeteriorationPermits.aspx) regulations.

### NNSR Permits

Prior to commencement of construction of any project that would trigger NNSR, an NNSR "permit" must be obtained from the LDEQ. An NNSR permit is not a stand-alone document; rather, NNSR provisions are incorporated in the source's Title V permit.

### A Single Project Can Trigger Both NNSR and PSD

Because New Source Review (which encompasses both NNSR and PSD) is pollutant-specific, it is important to note that a permit application may require both NNSR and PSD reviews. For example, East Baton Rouge (EBR) Parish is in attainment with the NAAQS for all criteria pollutants except ozone. Therefore, a permit application proposing a significant net emissions increase of both VOC (a nonattainment pollutant in EBR Parish) and CO (an attainment pollutant in Louisiana) would require that the VOC increase be evaluated in accordance with NNSR procedures, whereas the CO increase would be reviewed in accordance with PSD regulations.

### Related Topics

For extended discussions on the following topics, see LDEQ's Air Permit Procedures Manual.

- NNSR Applicability;
- NNSR Requirements;
- Plantwide Applicability Limits (PALs);
- Commencement of Construction;
- NNSR, PSD, and NO<sub>x</sub> Increases in the Baton Rouge Nonattainment Area;
- Transition from the 1-Hour Ozone NAAQS to the 8-Hour Ozone NAAQS; and
- EPA's Equipment Replacement Rule and Routine Maintenance, Repair, and Replacement.

### Other Online Resources

In addition to the Air Permit Procedures Manual, other resources include:

- [EPA's NSR Website \(http://www.epa.gov/nsr\)](http://www.epa.gov/nsr)
- [EPA's New Source Review Policy and Guidance Database \(http://www.epa.gov/region07/programs/artd/air/policy/search.htm\)](http://www.epa.gov/region07/programs/artd/air/policy/search.htm)
- [Emission Reduction Credits \(ERC\) Banking \(http://www.deq.louisiana.gov/portal/tabid/2275/Default.aspx\)](http://www.deq.louisiana.gov/portal/tabid/2275/Default.aspx)

[1] These parishes are collectively referred to as the Baton Rouge Nonattainment Area (BRNA).

[2] EPA finalized its May 7, 2002, proposal to rescind the BRNA's Section 182(f) & 182(b)(1) NO<sub>x</sub> exemptions at 68 FR 23597 (May 5, 2003), effective June 4, 2003.

DieselNet: Emission Standards » United States

## Nonroad Diesel Engines

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[Background](#)

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[Applicability](#)

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[Tier 1-3 Emission Standards](#)

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[Tier 4 Emission Standards](#)

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[Test Cycles and Fuels](#)

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[Environmental Benefit and Cost](#)

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### Background

**Tier 1-3 Standards.** The first federal standards (Tier 1) for new nonroad (or off-road) diesel engines were adopted in 1994 for engines over 37 kW (50 hp), to be phased-in from 1996 to 2000. In 1996, a Statement of Principles (SOP) pertaining to nonroad diesel engines was signed between EPA, California ARB and engine makers (including Caterpillar, Cummins, Deere, Detroit Diesel, Deutz, Isuzu, Komatsu, Kubota, Mitsubishi, Navistar, New Holland, Wisconsin, and Yanmar). On August 27, 1998, the EPA signed the final rule reflecting the provisions of the SOP [2787]. The 1998 regulation introduced Tier 1 standards for equipment under 37 kW (50 hp) and increasingly more stringent Tier 2 and Tier 3 standards for all equipment with phase-in schedules from 2000 to 2008. The Tier 1-3 standards are met through advanced engine design, with no or only limited use of exhaust gas aftertreatment (oxidation catalysts). Tier 3 standards for NO<sub>x</sub>+HC are similar in stringency to the 2004 standards for [highway engines](#), however Tier 3 standards for PM were never adopted.

**Tier 4 Standards.** On May 11, 2004, EPA signed the final rule introducing Tier 4 emission standards, which are phased-in over the period of 2008-2015 [2786]. The Tier 4 standards require that emissions of PM and NO<sub>x</sub> be further reduced by about 90%. Such emission reductions can be achieved through the use of control technologies—including advanced exhaust gas aftertreatment—similar to those required by the 2007-2010 standards for [highway engines](#).

**Nonroad Diesel Fuel.** At the Tier 1-3 stage, the sulfur content in nonroad diesel fuels was not limited by environmental regulations. The oil industry specification was 0.5% (wt., max), with the average in-use sulfur level of about 0.3% = 3,000 ppm. To enable sulfur-sensitive control technologies in Tier 4 engines—such as catalytic particulate filters and NO<sub>x</sub> adsorbers—the EPA mandated reductions in sulfur content in nonroad diesel fuels, as follows:

- 500 ppm effective June 2007 for nonroad, locomotive and marine (NRLM) diesel fuels
- 15 ppm (ultra-low sulfur diesel) effective June 2010 for nonroad fuel, and June 2012 for locomotive and marine fuels

**California.** In most cases, federal nonroad regulations also apply in California, whose authority to set emission standards for new nonroad engines is limited. The federal Clean Air Act Amendments of 1990 (CAA) preempt California's authority to control emissions from new farm and construction equipment under 175 hp [CAA Section 209 (e)(1)(A)] and require California to receive authorization from the federal EPA for controls over other off-road sources [CAA Section 209 (e)(2)(A)].

The US nonroad emission standards are harmonized to a certain degree with European [nonroad emission standards](#).

EPA emission standards for nonroad diesel engines are published in the US Code of Federal Regulations, Title 40, Part 89. Regulatory text, fact sheets and related documents are available from the EPA web site [2788].

## Applicability

The nonroad standards cover mobile *nonroad diesel engines* of all sizes used in a wide range of construction, agricultural and industrial equipment. The EPA definition of the *nonroad engine* is based on the principle of mobility/portability, and includes engines installed on (1) self-propelled equipment, (2) on equipment that is propelled while performing its function, or (3) on equipment that is portable or transportable, as indicated by the presence of wheels, skids, carrying handles, dolly, trailer, or platform [40 CFR 1068.30]. In other words, nonroad engines are all internal combustion engines except motor vehicle (highway) engines, stationary engines (or engines that remain at one location for more than 12 months), engines used solely for competition, or engines used in aircraft.

Effective May 14, 2003, the definition of nonroad engines was changed to also include all diesel powered engines—including stationary ones—used in agricultural operations in California. This change applies only to engines sold in the state of California; stationary engines sold in other states are not classified as nonroad engines.

The nonroad diesel emission regulations are not applicable to all nonroad diesel engines. Exempted are the following nonroad engine categories:

- Engines used in railway [locomotives](#); those are subject to separate EPA regulations.
- Engines used in [marine](#) vessels, also covered by separate EPA regulations. Marine engines below 37 kW (50 hp) are subject to Tier 1-2—but not Tier 4—nonroad standards. Certain marine engines that are exempted from marine standards may be subject to nonroad regulations.
- Engines used in underground [mining](#) equipment. Diesel emissions and air quality in mines are regulated by the Mine Safety and Health Administration (MSHA).
- Hobby engines (below 50 cm<sup>3</sup> per cylinder)

Examples of regulated applications include farm tractors, excavators, bulldozers, wheel loaders, backhoe loaders, road graders, diesel lawn tractors, logging equipment, portable generators, skid steer loaders, or forklifts.

A new definition of a compression-ignition (diesel) engine was introduced in the 1998 rule, consistent with definitions established for highway engines. The definition focuses on the engine cycle, rather than the ignition mechanism, with the presence of a throttle as an indicator to distinguish between diesel-cycle and otto-cycle operation. Regulating power by controlling the fuel supply in lieu of a throttle corresponds with lean combustion and diesel-cycle operation. This language allows the possibility that a natural gas-fueled engine equipped with a spark plug is considered a compression-ignition engine.

## Tier 1-3 Emission Standards

The 1998 nonroad engine regulations were structured as a 3-tiered progression. Each tier involved a phase-in (by horsepower rating) over several years. Tier 1 standards were phased-in from 1996 to 2000. The more stringent Tier 2 standards took effect from 2001 to 2006, and yet more stringent Tier 3 standards phased-in from 2006 to 2008 (Tier 3 standards applied only for engines from 37-560 kW).

Tier 1-3 emissions standards are listed in Table 1. Nonroad regulations use the metric system of units, with regulatory limits expressed in grams of pollutant per kWh.

**Table 1**  
EPA Tier 1-3 Nonroad Diesel Engine Emission Standards, g/kWh (g/bhp-hr)

Engine Power	Tier	Year	CO	HC	NMHC+NOx	NOx	PM
kW < 8 (hp < 11)	Tier 1	2000	8.0 (6.0)	-	10.5 (7.8)	-	1.0 (0.75)
	Tier 2	2005	8.0 (6.0)	-	7.5 (5.6)	-	0.8 (0.6)
8 ≤ kW < 19 (11 ≤ hp < 25)	Tier 1	2000	6.6 (4.9)	-	9.5 (7.1)	-	0.8 (0.6)
	Tier 2	2005	6.6 (4.9)	-	7.5 (5.6)	-	0.8 (0.6)
19 ≤ kW < 37 (25 ≤ hp < 50)	Tier 1	1999	5.5 (4.1)	-	9.5 (7.1)	-	0.8 (0.6)
	Tier 2	2004	5.5 (4.1)	-	7.5 (5.6)	-	0.6 (0.45)
37 ≤ kW < 75 (50 ≤ hp < 100)	Tier 1	1998	-	-	-	9.2 (6.9)	-
	Tier 2	2004	5.0 (3.7)	-	7.5 (5.6)	-	0.4 (0.3)
	Tier 3	2008	5.0 (3.7)	-	4.7 (3.5)	-	-†
75 ≤ kW < 130 (100 ≤ hp < 175)	Tier 1	1997	-	-	-	9.2 (6.9)	-
	Tier 2	2003	5.0 (3.7)	-	6.6 (4.9)	-	0.3 (0.22)
	Tier 3	2007	5.0 (3.7)	-	4.0 (3.0)	-	-†
130 ≤ kW < 225 (175 ≤ hp < 300)	Tier 1	1996	11.4 (8.5)	1.3 (1.0)	-	9.2 (6.9)	0.54 (0.4)
	Tier 2	2003	3.5 (2.6)	-	6.6 (4.9)	-	0.2 (0.15)
	Tier 3	2006	3.5 (2.6)	-	4.0 (3.0)	-	-†
225 ≤ kW < 450 (300 ≤ hp < 600)	Tier 1	1996	11.4 (8.5)	1.3 (1.0)	-	9.2 (6.9)	0.54 (0.4)
	Tier 2	2001	3.5 (2.6)	-	6.4 (4.8)	-	0.2 (0.15)
	Tier 3	2006	3.5 (2.6)	-	4.0 (3.0)	-	-†
450 ≤ kW < 560 (600 ≤ hp < 750)	Tier 1	1996	11.4 (8.5)	1.3 (1.0)	-	9.2 (6.9)	0.54 (0.4)
	Tier 2	2002	3.5 (2.6)	-	6.4 (4.8)	-	0.2 (0.15)
	Tier 3	2006	3.5 (2.6)	-	4.0 (3.0)	-	-†
kW ≥ 560 (hp ≥ 750)	Tier 1	2000	11.4 (8.5)	1.3 (1.0)	-	9.2 (6.9)	0.54 (0.4)
	Tier 2	2006	3.5 (2.6)	-	6.4 (4.8)	-	0.2 (0.15)

† Not adopted, engines must meet Tier 2 PM standard.

Manufacturers who signed the 1998 [Consent Decrees](#) with the EPA may have been required to meet the Tier 3 standards one year ahead of schedule (i.e. beginning in 2005).

Voluntary, more stringent emission standards that manufacturers could use to earn a designation of “Blue Sky Series” engines (applicable to Tier 1-3 certifications) are listed in Table 2.

**Table 2**  
EPA Voluntary Emission Standards for Nonroad Diesel Engines,  
g/kWh (g/bhp-hr)

Rated Power (kW)	NMHC+NOx	PM
kW < 8	4.6 (3.4)	0.48 (0.36)
8 ≤ kW < 19	4.5 (3.4)	0.48 (0.36)
19 ≤ kW < 37	4.5 (3.4)	0.36 (0.27)
37 ≤ kW < 75	4.7 (3.5)	0.24 (0.18)
75 ≤ kW < 130	4.0 (3.0)	0.18 (0.13)
130 ≤ kW < 560	4.0 (3.0)	0.12 (0.09)
kW ≥ 560	3.8 (2.8)	0.12 (0.09)

Engines of all sizes had to meet smoke standards of 20/15/50% opacity at acceleration/lug/peak modes, respectively.

The regulations included several other provisions, such as averaging, banking and trading of emission credits and maximum “family emission limits” (FEL) for emission averaging.

## Tier 4 Emission Standards

The Tier 4 emission standards—phased-in from 2008 through 2015—introduce substantial reductions of NO<sub>x</sub> (for engines above 56 kW) and PM (above 19 kW), as well as more stringent HC limits. CO emission limits remain unchanged from the Tier 2-3 stage.

**Engines up to 560 kW.** Tier 4 emission standards for engines up to 560 kW are listed in Table 3.

**Table 3**  
Tier 4 Emission Standards—Engines up to 560 kW, g/kWh (g/bhp-hr)

Engine Power	Year	CO	NMHC	NMHC+NO <sub>x</sub>	NO <sub>x</sub>	PM
kW < 8 (hp < 11)	2008	8.0 (6.0)	-	7.5 (5.6)	-	0.4 <sup>a</sup> (0.3)
8 ≤ kW < 19 (11 ≤ hp < 25)	2008	6.6 (4.9)	-	7.5 (5.6)	-	0.4 (0.3)
19 ≤ kW < 37 (25 ≤ hp < 50)	2008	5.5 (4.1)	-	7.5 (5.6)	-	0.3 (0.22)
	2013	5.5 (4.1)	-	4.7 (3.5)	-	0.03 (0.022)
37 ≤ kW < 56 (50 ≤ hp < 75)	2008	5.0 (3.7)	-	4.7 (3.5)	-	0.3 <sup>b</sup> (0.22)
	2013	5.0 (3.7)	-	4.7 (3.5)	-	0.03 (0.022)
56 ≤ kW < 130 (75 ≤ hp < 175)	2012-2014 <sup>c</sup>	5.0 (3.7)	0.19 (0.14)	-	0.40 (0.30)	0.02 (0.015)
130 ≤ kW ≤ 560 (175 ≤ hp ≤ 750)	2011-2014 <sup>d</sup>	3.5 (2.6)	0.19 (0.14)	-	0.40 (0.30)	0.02 (0.015)

a - hand-startable, air-cooled, DI engines may be certified to Tier 2 standards through 2009 and to an optional PM standard of 0.6 g/kWh starting in 2010  
b - 0.4 g/kWh (Tier 2) if manufacturer complies with the 0.03 g/kWh standard from 2012  
c - PM/CO: full compliance from 2012; NO<sub>x</sub>/HC: Option 1 (if banked Tier 2 credits used)—50% engines must comply in 2012-2013; Option 2 (if no Tier 2 credits claimed)—25% engines must comply in 2012-2014, with full compliance from 2014.12.31  
d - PM/CO: full compliance from 2011; NO<sub>x</sub>/HC: 50% engines must comply in 2011-2013

In engines of 56-560 kW rated power, the NO<sub>x</sub> and HC standards are phased-in over a few year period, as indicated in the notes to Table 3. The initial standards (PM compliance) are sometimes referred to as the ‘interim Tier 4’ (or ‘Tier 4i’), ‘transitional Tier 4’ or ‘Tier 4 A’, while the final standards (NO<sub>x</sub>/HC compliance) are sometimes referred to as ‘Tier 4 B’.

As an alternative to introducing the required percentage of Tier 4 compliant engines, manufacturers may certify all their engines to an *alternative NO<sub>x</sub> limit* in each model year during the phase-in period. These alternative NO<sub>x</sub> standards are:

- Engines 56-130 kW:
  - Option 1: NO<sub>x</sub> = 2.3 g/kWh = 1.7 g/bhp-hr (Tier 2 credits used to comply, MY 2012-2013)
  - Option 2: NO<sub>x</sub> = 3.4 g/kWh = 2.5 g/bhp-hr (no Tier 2 credits claimed, MY 2012-2014)
- Engines 130-560 kW: NO<sub>x</sub> = 2.0 g/kWh = 1.5 g/bhp-hr (MY 2011-2013)

**Engines Above 560 kW.** Tier 4 emission standards for engines above 560 kW are listed in Table 4. The 2011 standards are sometimes referred to as ‘transitional Tier 4’, while the 2015 limits represent final Tier 4 standards.

**Table 4**  
Tier 4 Emission Standards—Engines Above 560 kW, g/kWh (g/bhp-hr)

Year	Category	CO	NMHC	NO <sub>x</sub>	PM
2011	Generator sets > 900 kW	3.5 (2.6)	0.40 (0.30)	0.67 (0.50)	0.10 (0.075)
	All engines except gensets > 900 kW	3.5 (2.6)	0.40 (0.30)	3.5 (2.6)	0.10 (0.075)
2015	Generator sets	3.5 (2.6)	0.19 (0.14)	0.67 (0.50)	0.03 (0.022)
	All engines except gensets	3.5 (2.6)	0.19 (0.14)	3.5 (2.6)	0.04 (0.03)

**Other Provisions.** Existing Tier 2-3 smoke opacity standards and procedures continue to apply in some engines. Exempted from smoke emission standards are engines certified to PM emission standards at or below 0.07 g/kWh (because an engine of such low PM level has inherently low smoke emission).

The Tier 4 regulation does not require closed crankcase ventilation in nonroad engines. However, in engines with open crankcases, crankcase emissions must be measured and added to exhaust emissions in assessing compliance.

Similarly to earlier standards, the Tier 4 regulation includes such provisions as averaging, banking and trading of emission credits and FEL limits for emission averaging.

## Test Cycles and Fuels

Nonroad engine emissions are measured on a steady-state test cycle that is equivalent to the [ISO 8178 C1](#), 8-mode steady-state test cycle. Other ISO 8178 test cycles are allowed for selected applications, such as constant-speed engines (D2 5-mode cycle), variable-speed engines rated under 19 kW (G2 cycle), and marine engines (E3 cycle).

**Transient Testing.** Tier 4 standards have to be met over both the steady-state test and the [nonroad transient cycle](#), NRTC. The transient testing requirements started with MY 2013 for engines below 56 kW, MY 2012 for 56-130 kW, and MY 2011 for 130-560 kW engines. Engines above 560 kW are not tested on the transient test. Also constant-speed, variable-load engines of any power category are not subject to transient testing. The NRTC protocol includes a cold start test. The cold start emissions are weighted at 5% and hot start emissions are weighted at 95% in calculating the final result.

Tier 4 nonroad engines must also meet not-to-exceed standards (NTE), which are measured without reference to any specific test schedule. The NTE standards became effective in 2011 for engines above 130 kW; in 2012 for 56-130 kW; and in 2013 for engines below 56 kW. In most engines, the NTE limits are set at 1.25 times the regular standard for each pollutant. In engines certified to NO<sub>x</sub> standards below 2.5 g/kWh or PM standards below 0.07 g/kWh, the NTE multiplier is 1.5. The NTE standards apply to engines at the time of certification, as well as in use throughout the useful life of the engine. The purpose of the added testing requirements is to prevent the possibility of “defeating” the test cycle by electronic engine controls.

**Certification Fuels.** Fuels with sulfur levels no greater than 0.2 wt% (2,000 ppm) were used for certification testing of Tier 1-3 engines. From 2011, all Tier 4 engines are tested using fuels of 7-15 ppm sulfur content. The transition from the 2000 ppm S specification to the 7-15 ppm specification took place in the 2006-2010 period (see [Certification Diesel Fuel](#)).

A change from measuring total hydrocarbons to nonmethane hydrocarbons (NMHC) has been introduced in the 1998 rule. Since there is no standardized EPA method for measuring methane in diesel engine exhaust, manufacturers can either use their own procedures to analyze nonmethane hydrocarbons or measure total hydrocarbons and subtract 2% from the measured hydrocarbon mass to correct for methane.

## Environmental Benefit and Cost

### 1998 Regulation

At the time of signing the 1998 rule, the EPA estimated that by 2010 NO<sub>x</sub> emissions would be reduced by about a million tons per year, the equivalent of taking 35 million passenger cars off the road.

The costs of meeting the emission standards were expected to add under 1% to the purchase price of typical new nonroad diesel equipment, although for some equipment the standards may cause price increases on the order of 2-3%. The program was expected to cost about \$600 per ton of NO<sub>x</sub> reduced.

### **Tier 4 Regulation**

When the full inventory of older nonroad engines are replaced by Tier 4 engines, annual emission reductions are estimated at 738,000 tons of NO<sub>x</sub> and 129,000 tons of PM. By 2030, 12,000 premature deaths would be prevented annually due to the implementation of the proposed standards.

The estimated costs for added emission controls for the vast majority of equipment was estimated at 1-3% as a fraction of total equipment price. For example, for a 175 hp bulldozer that costs approximately \$230,000 it would cost up to \$6,900 to add the advanced emission controls and to design the bulldozer to accommodate the modified engine.

EPA estimated that the average cost increase for 15 ppm S fuel would be 7 cents per gallon. This figure would be reduced to 4 cents by anticipated savings in maintenance costs due to low sulfur diesel.

## **Appendix No. 4**

Figures (Water Resources)



Angelette-Picciola  
Consulting Engineers & Surveyors

Neil B. Angelette, P.E., P.L.S.

Larry J. Picciola, P.E., P.L.S.

December 5, 2012

Mr. Mike Algero  
Louisiana Department of Environmental Quality  
201 Evans Road, Building 4, Suite 420  
New Orleans, Louisiana 70123-5230

*Response From  
Beth*

Re: Lafourche Parish Government  
Industrial Park Floodwall  
Larose, Lafourche Parish, Louisiana

Dear Mr. Algero:

Please let this letter serve as a request for "no objection" on the part of your agency for the above referenced project. The Louisiana Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) is requiring us to acquire this letter of "no objection" from your agency, in order to complete an on-going FEMA grant application.

The scope of this project entails the following: (Please see enclosed maps/documents for further details.)

1. Construction of sheetpile floodwall along Industrial Park Rd. (see "Overall Site Plan" map)
2. Increase capacity of existing "T-Bois" Pump Station. (Hamilton St., see "Map of Study Area")
3. Adding one culvert across LA Hwy. 308. (in vicinity of Edward St., see "Map of Study Area")
4. Increasing several main outfall ditch capacities flowing to the 40 Arpent Canal and "T-Bois" Pump Station.

Mr. Mike Algero  
December 5, 2012  
Page 2

Please be informed, that the aforementioned project area is currently under forced drainage, and this project serves only as an improvement to the current forced drainage system. Please feel free to contact me for any further information.

Sincerely,

A handwritten signature in black ink, appearing to read "Kyle S. Pierce", with a long horizontal flourish extending to the right.

Kyle S. Pierce  
Designer/Senior Engineering Technician

LJP/mcp

Enclosures

080039

## Kyle Pierce

---

**From:** Beth Altazan-Dixon <Beth.Dixon@LA.GOV>  
**Sent:** Friday, December 21, 2012 7:58 AM  
**To:** Kyle Pierce  
**Subject:** DEQ SOV 121219/2220 Lafourche-Industrial Park Floodwall Project

December 21, 2012

Kyle S. Pierce-Designer/Senior Engineering Technician  
Angelette-Picciola, LLC.  
P.O. Box 970  
Larose, LA 70373  
[kyle@angelettepicciola.com](mailto:kyle@angelettepicciola.com)

RE: 121219/2220 Lafourche-Industrial Park Floodwall Project  
FEMA Funding  
Lafourche Parish

Dear Mr. Pierce:

The Department of Environmental Quality (LDEQ), Business and Community Outreach Division has received your request for comments on the above referenced project.

After reviewing your request, the Department has no objections based on the information provided in your submittal. However, for your information, the following general comments have been included. Please be advised that if you should encounter a problem during the implementation of this project, you should immediately notify LDEQ's Single-Point-of-contact (SPOC) at (225) 219-3640.

- Please take any necessary steps to obtain and/or update all necessary approvals and environmental permits regarding this proposed project.
- If your project results in a discharge to waters of the state, submittal of a Louisiana Pollutant Discharge Elimination System (LPDES) application may be necessary.
- If the project results in a discharge of wastewater to an existing wastewater treatment system, that wastewater treatment system may need to modify its LPDES permit before accepting the additional wastewater.
- All precautions should be observed to control nonpoint source pollution from construction activities. LDEQ has stormwater general permits for construction areas equal to or greater than one acre. It is recommended that you contact the LDEQ Water Permits Division at (225) 219-9371 to determine if your proposed project requires a permit.
- If your project will include a sanitary wastewater treatment facility, a Sewage Sludge and Biosolids Use or Disposal Permit application or Notice of Intent must be submitted no later than January 1, 2013. Additional information may be obtained on the LDEQ website at <http://www.deq.louisiana.gov/portal/tabid/2296/Default.aspx> or by contacting the LDEQ Water Permits Division at (225) 219- 9371.
- If any of the proposed work is located in wetlands or other areas subject to the jurisdiction of the U.S. Army Corps of Engineers, you should contact the Corps directly regarding permitting issues. If a Corps permit is required, part of the application process may involve a water quality certification from LDEQ.
- All precautions should be observed to protect the groundwater of the region.
- Please be advised that water softeners generate wastewaters that may require special limitations depending on local water quality considerations. Therefore if your water system improvements include water softeners, you are advised to contact the LDEQ Water Permits to determine if special water quality-based limitations will be necessary.
- Any renovation or remodeling must comply with LAC 33:III.Chapter 28, Lead-Based Paint Activities; LAC 33:III.Chapter 27, Asbestos-Containing Materials in Schools and State Buildings (includes all training and accreditation); and LAC 33:III.5151, Emission Standard for Asbestos for any renovations or demolitions.

- If any solid or hazardous wastes, or soils and/or groundwater contaminated with hazardous constituents are encountered during the project, notification to LDEQ's Single-Point-of-Contact (SPOC) at (225) 219-3640 is required. Additionally, precautions should be taken to protect workers from these hazardous constituents.

**Currently, Lafourche Parish is classified as attainment with the National Ambient Air Quality Standards and has no general conformity determination obligations.**

Please send all future requests to my attention. If you have any questions, please feel free to contact me at (225) 219-3958 or by email at [beth.dixon@la.gov](mailto:beth.dixon@la.gov).

Sincerely,



Beth Altazan-Dixon, EPS III  
Performance Management  
LDEQ/Office of the Secretary  
Business and Community Outreach and Incentives Division  
P.O. Box 4301 (602 N. 5th Street)  
Baton Rouge, LA 70821-4301  
Phone: 225-219-3958  
Fax: 225-325-8148  
Email: [beth.dixon@la.gov](mailto:beth.dixon@la.gov)

APPENDIX H:  
Louisiana's 2012 Section 303(d) List

Description of Codes and Acronyms:

**Water Body Types:** R = Rivers; L = Lakes; E = Estuaries; W = Wetlands  
**Water Body Sizes:** R = Miles; L = Acres; E = Square Miles; W = Acres  
**Water Use Designations:** PCR = Primary Contact Recreation (swimming)  
 SCR = Secondary Contact Recreation (boating)  
 FWP = Fish and Wildlife Propagation (fishing)  
 DWS = Drinking Water Supply  
 ONR = Outstanding Natural Resource  
 OYS = Oyster Propagation  
 AGR = Agriculture  
 LAL = Limited Aquatic Life and Wildlife

**Use Support Codes for Designated Uses:** F = Fully supporting designated use  
 N = Not supporting designated use  
 I = Insufficient data to make reliable determination  
 X = No data

**Follow-up Data Comments:** CTM Full: Lead = Follow-up ultra-clean metals sampling indicates full support.

DOC/M Full = Follow-up dissolved oxygen continuous monitoring data indicates full support.

**IR Category for Suspected Causes:** IRC 5=303(d) List  
 IRC 5RC=303(d) List but criteria revisions (Revise Criteria (RC)) are planned  
 IRC 4a=TMDL completed  
 IRC 4b=Other corrective actions in place  
 IRC 3=Insufficient data to make a reliable determination  
 IRC 1 (No code)=No impairment, fully supporting all uses

Subsegment Number	Subsegment Description	Water Body Type	Size	Designated Water Body Uses								Follow-up Data Comments	Impaired Use for Suspected Cause	Suspected Causes of Impairment	IR Category for Suspected Causes	TMDL Priority	Suspected Sources of Impairment	
				PCR	SCR	FWP	DWS	ONR	OYS	AGR	LAL							
LA010401_00	East Atchafalaya Basin and Morganza Floodway South to I-10 Canal	W	195,840	F	F	N								FWP	Oxygen, Dissolved	IRC 5	L	Non-irrigated Crop Production
LA010401_00	East Atchafalaya Basin and Morganza Floodway South to I-10 Canal	W	195,840	F	F	N							FWP	Oxygen, Dissolved	IRC 5	L	Petroleum/natural Gas Production Activities (Permitted)	
LA010502_00	Intracoastal Waterway (ICWW)-Morgan City-Port Allen Route from Bayou Sorrel Lock to Morgan City	R	85	F	F	N	F						FWP	Oxygen, Dissolved	IRC 5	L	Natural Sources	
LA010502_00	Intracoastal Waterway (ICWW)-Morgan City-Port Allen Route from Bayou Sorrel Lock to Morgan City	R	85	F	F	N	F						FWP	Oxygen, Dissolved	IRC 5	L	Runoff from Forest/Grassland/Parkland	
LA010601_00	Crow Bayou, Bayou Blue and Tributaries	R	18	F	F	N							FWP	Oxygen, Dissolved	IRC 5	L	Irrigated Crop Production	
LA010601_00	Crow Bayou, Bayou Blue and Tributaries	R	18	F	F	N							FWP	Oxygen, Dissolved	IRC 5	L	Non-irrigated Crop Production	
LA010601_00	Crow Bayou, Bayou Blue and Tributaries	R	18	F	F	N							FWP	Oxygen, Dissolved	IRC 5	L	On-site Treatment Systems (Septic Systems and Similar Decentralized Systems)	
LA010901_00	Atchafalaya Bay and Delta and Gulf Waters to State 3 mile limit	E	391	F	F	N				N			OYS	Fecal Coliform	IRC 5	H	Natural Sources	
LA010901_00	Atchafalaya Bay and Delta and Gulf Waters to State 3 mile limit	E	391	F	F	N				N			OYS	Fecal Coliform	IRC 5	H	Package Plant or Other Permitted Small Flows Discharges	

APPENDIX H:  
Louisiana's 2012 Section 303(d) List

Subsegment Number	Subsegment Description	Water Body Type	Size	Designated Water Body Uses								Follow-up Data Comments	Impaired Use for Suspected Cause	Suspected Causes of Impairment	IR Category for Suspected Causes	TMDL Priority	Suspected Sources of Impairment
				PCR	SCR	FWP	DWS	ONR	OYS	AGR	LAL						
LA010901_00	Atchafalaya Bay and Delta and Gulf Waters to State 3 mile limit	E	391	F	F	N	N	N	N	N	N		OYS	Fecal Coliform	IRC 5	H	Petroleum/natural Gas Production Activities (Permitted)
LA020201_00	Bayou Des Allemands-From Lac Des Allemands to old US-90 (Scenic)	R	7	F	F	N	N	N	N	N		FWP	Turbidity	IRC 5RC	L	Natural Sources	
LA020201_00	Bayou Des Allemands-From Lac Des Allemands to old US-90 (Scenic)	R	7	F	F	N	N	N	N	N		FWP	Turbidity	IRC 5RC	L	Sediment Resuspension (Clean Sediment)	
LA020201_00	Bayou Des Allemands-From Lac Des Allemands to old US-90 (Scenic)	R	7	F	F	N	N	N	N	N		FWP	Turbidity	IRC 5RC	L	Source Unknown	
LA020201_00	Bayou Des Allemands-From Lac Des Allemands to old US-90 (Scenic)	R	7	F	F	N	N	N	N	N		ONR	Turbidity	IRC 5RC	L	Sediment Resuspension (Clean Sediment)	
LA020201_00	Bayou Des Allemands-From Lac Des Allemands to old US-90 (Scenic)	R	7	F	F	N	N	N	N	N		ONR	Turbidity	IRC 5RC	L	Source Unknown	
LA020301_00	Bayou Des Allemands-From US-90 to Lake Salvador (Scenic)	R	14	F	F	N	N	N	N	N		FWP	Turbidity	IRC 5	L	Forced Drainage Pumping	
LA020301_00	Bayou Des Allemands-From US-90 to Lake Salvador (Scenic)	R	14	F	F	N	N	N	N	N		FWP	Turbidity	IRC 5	L	Sediment Resuspension (Clean Sediment)	
LA020301_00	Bayou Des Allemands-From US-90 to Lake Salvador (Scenic)	R	14	F	F	N	N	N	N	N		ONR	Turbidity	IRC 5	L	Forced Drainage Pumping	
LA020301_00	Bayou Des Allemands-From US-90 to Lake Salvador (Scenic)	R	14	F	F	N	N	N	N	N		ONR	Turbidity	IRC 5	L	Sediment Resuspension (Clean Sediment)	
LA020304_00	Lake Salvador	L	44,800	F	F	N	N	N	N	N		FWP	Turbidity	IRC 5RC	L	Natural Sources	
LA020304_00	Lake Salvador	L	44,800	F	F	N	N	N	N	N		FWP	Turbidity	IRC 5RC	L	Sediment Resuspension (Clean Sediment)	
LA020501_00	Sauls, Avondale, and Main Canals	R	26	N	F	N	N	N	N	N		FWP	Chloride	IRC 5RC	L	Drainage/Filling/Loss of Wetlands	
LA020501_00	Sauls, Avondale, and Main Canals	R	26	N	F	N	N	N	N	N		FWP	Chloride	IRC 5RC	L	Habitat Modification - other than Hydromodification	
LA020501_00	Sauls, Avondale, and Main Canals	R	26	N	F	N	N	N	N	N		FWP	Chloride	IRC 5RC	L	Littoral/shore Area	
LA020501_00	Sauls, Avondale, and Main Canals	R	26	N	F	N	N	N	N	N		FWP	Sulfates	IRC 5RC	L	Modifications (Non-riverine)	
LA020501_00	Sauls, Avondale, and Main Canals	R	26	N	F	N	N	N	N	N		FWP	Sulfates	IRC 5RC	L	Drainage/Filling/Loss of Wetlands	
LA020501_00	Sauls, Avondale, and Main Canals	R	26	N	F	N	N	N	N	N		FWP	Sulfates	IRC 5RC	L	Habitat Modification - other than Hydromodification	
LA020501_00	Sauls, Avondale, and Main Canals	R	26	N	F	N	N	N	N	N		FWP	Sulfates	IRC 5RC	L	Littoral/shore Area	
LA020501_00	Sauls, Avondale, and Main Canals	R	26	N	F	N	N	N	N	N		FWP	Total Dissolved Solids	IRC 5RC	L	Drainage/Filling/Loss of Wetlands	
LA020501_00	Sauls, Avondale, and Main Canals	R	26	N	F	N	N	N	N	N		FWP	Total Dissolved Solids	IRC 5RC	L	Habitat Modification - other than Hydromodification	
LA020501_00	Sauls, Avondale, and Main Canals	R	26	N	F	N	N	N	N	N		FWP	Total Dissolved Solids	IRC 5RC	L	Littoral/shore Area	
LA020501_00	Sauls, Avondale, and Main Canals	R	26	N	F	N	N	N	N	N		FWP	Total Dissolved Solids	IRC 5RC	L	Modifications (Non-riverine)	

APPENDIX H:  
Louisiana's 2012 Section 303(d) List

Subsegment Number	Subsegment Description	Water Body Type	Size	Designated Water Body Uses								Follow-up Data Comments	Impaired Use for Suspected Cause	Suspected Causes of Impairment	IR Category for Suspected Causes	TMDL Priority	Suspected Sources of Impairment
				PCR	SCR	FWP	DWS	ONR	OYS	AGR	LAL						
LA020501_00	Sauls, Avondale, and Main Canals	R	26	N	F	N							PCR	Fecal Coliform	IRC 5	M	Municipal Point Source Discharges
LA020501_00	Sauls, Avondale, and Main Canals	R	26	N	F	N							PCR	Fecal Coliform	IRC 5	M	Sewage Discharges in Unsewered Areas
LA020601_00	Intracoastal Waterway-From Bayou Villars to Mississippi River (Estuarine)	R	15	N	F	N							FWP	Turbidity	IRC 5RC	L	Natural Sources
LA020601_00	Intracoastal Waterway-From Bayou Villars to Mississippi River (Estuarine)	R	15	N	F	N							FWP	Turbidity	IRC 5RC	L	Sediment Resuspension (Clean Sediment)
LA020601_00	Intracoastal Waterway-From Bayou Villars to Mississippi River (Estuarine)	R	15	N	F	N							FWP	Turbidity	IRC 5RC	L	Source Unknown
LA020601_00	Intracoastal Waterway-From Bayou Villars to Mississippi River (Estuarine)	R	15	N	F	N							PCR	Fecal Coliform	IRC 5	M	Marina/Boating Sanitary On-vessel Discharges
LA020601_00	Intracoastal Waterway-From Bayou Villars to Mississippi River (Estuarine)	R	15	N	F	N							PCR	Fecal Coliform	IRC 5	M	Municipal Point Source Discharges
LA020801_00	Intracoastal Waterway-From Larose to Bayou Villars and Bayou Barataria (Estuarine)	R	34	F	F	N							FWP	Turbidity	IRC 5RC	L	Natural Sources
LA020801_00	Intracoastal Waterway-From Larose to Bayou Villars and Bayou Barataria (Estuarine)	R	34	F	F	N							FWP	Turbidity	IRC 5RC	L	Sediment Resuspension (Clean Sediment)
LA020801_00	Intracoastal Waterway-From Larose to Bayou Villars and Bayou Barataria (Estuarine)	R	34	F	F	N							FWP	Turbidity	IRC 5RC	L	Source Unknown
LA020901_00	Bayou Rigolettes and Bayou Perot to Little Lake (Estuarine)	E	5	F	F	N			F				FWP	Turbidity	IRC 5RC	L	Natural Sources
LA020901_00	Bayou Rigolettes and Bayou Perot to Little Lake (Estuarine)	E	5	F	F	N			F				FWP	Turbidity	IRC 5RC	L	Sediment Resuspension (Clean Sediment)
LA020901_00	Bayou Rigolettes and Bayou Perot to Little Lake (Estuarine)	E	5	F	F	N			F				FWP	Turbidity	IRC 5RC	L	Source Unknown
LA020902_00	Little Lake (Estuarine)	E	20	F	F	N			N				FWP	Turbidity	IRC 5RC	L	Natural Sources
LA020902_00	Little Lake (Estuarine)	E	20	F	F	N			N				FWP	Turbidity	IRC 5RC	L	Sediment Resuspension (Clean Sediment)
LA020902_00	Little Lake (Estuarine)	E	20	F	F	N			N				FWP	Turbidity	IRC 5RC	L	Source Unknown
LA020902_00	Little Lake (Estuarine)	E	20	F	F	N			N				FWP	Turbidity	IRC 5RC	L	Naturally Occurring Organic Acids
LA030102_00	Calcasieu River-From LA-8 to the Rapides-Allen Parish line (Scenic)	R	49	F	F	N			F				FWP	pH, Low	IRC 5RC	L	Source Unknown
LA030201_00	Calcasieu River-From Marsh Bayou to saltwater barrier (Scenic)	R	26	N	F	N			N				FWP	Chloride	IRC 5	L	Drought-related Impacts



## Watershed Assessment, Tracking & Environmental Results

You are here: [EPA Home](#) ► [Water](#) ► [WATERS](#) ► [Water Quality Assessment and TMDL Information](#) ► Waterbody Quality Assessment Report

[Return to home page](#)

### On This Page

- [Causes of Impairment](#)
- [TMDLs That Apply to This Waterbody](#)
- [Previous Causes of Impairment Now Attaining All Uses](#)

**State:** [Louisiana](#)

**Waterbody ID:**  
LA020401\_00

**Location:** Bayou Lafourche-Donaldsonville To Intracoastal Waterway At Larose

**State Waterbody Type:**  
River

**EPA Waterbody Type:**  
Rivers and Streams

**Water Size:** 68

**Units:** miles

**Watershed Name:** [East Central Louisiana Coastal](#)

[Waterbody History Report](#)

## 2010 Waterbody Report for Bayou Lafourche-From Donaldsonville To Icw At Larose



Click on the waterbody for an interactive map

### Features

- About This Database (Integrated Report)
- Assessing Water Quality (Questions and Answers)
- Integrated Reporting Guidance
- Previous National Water Quality Reports
- EnviroMapper for Water
- AskWATERS
- EPA WATERS Homepage
- Exchange Network
- Assessment Database
- Statewide Statistical Surveys
- *How's My Waterway* Local Search tool
- Pollution Categories Summary Document

## Causes of Impairment for Reporting Year 2010

[Description of this table](#)

<u>Cause of Impairment</u>	<u>Cause of Impairment Group</u>	<u>State TMDL Development Status</u>
Fecal Coliform	Pathogens	TMDL completed
Non-Native Aquatic Plants	Nuisance Exotic Species	TMDL alternative

### TMDLs That Apply to this waterbody

*No TMDL data have been recorded by EPA for this waterbody.*

### Previous Causes of Impairments Now Attaining All Uses

[Description of this table](#)

<u>Cause of Impairment</u>	<u>Cycles Listed</u>	<u>WQS Attainment Date</u>	<u>WQS Attainment Reason</u>	<u>WQS Attainment Comments</u>
Chloride	2006	Sep-28-2011	Applicable WQS attained; reason for recovery unspecified.	
Total Dissolved Solids (TDS)	2006	Sep-28-2011	Applicable WQS attained; reason for recovery unspecified.	



## Watershed Assessment, Tracking & Environmental Results

You are here: [EPA Home](#) » [Water](#) » [WATERS](#) » [Water Quality Assessment and TMDL Information](#) » Waterbody Quality Assessment Report

[Return to home page](#)

### On This Page

- [Causes of Impairment](#)
- [TMDLs That Apply to This Waterbody](#)
- [Previous Causes of Impairment Now Attaining All Uses](#)

**State:** [Louisiana](#)

**Waterbody ID:**  
LA020801\_00

**Location:** Intracoastal Waterway-From Larose To Bayou Villars And Bayou Barataria (Estuarine)

**State Waterbody Type:**  
River

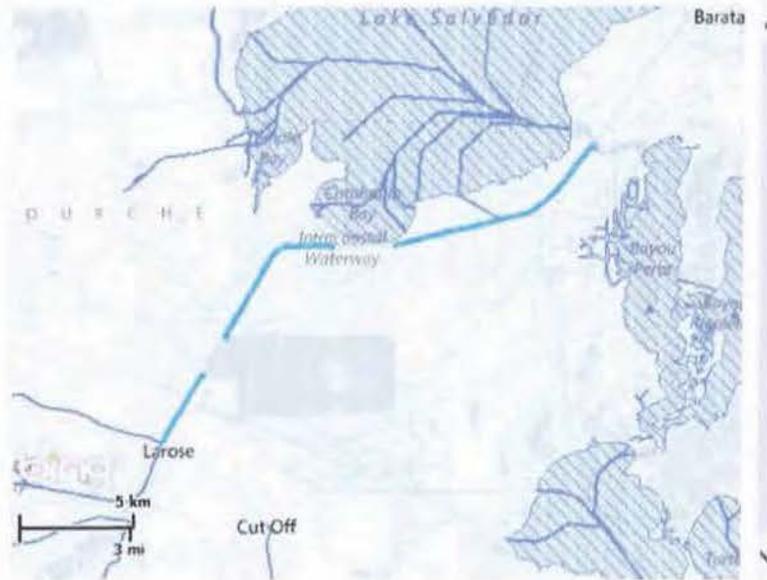
**EPA Waterbody Type:**  
Rivers and Streams

**Water Size:** 34

**Units:** miles

**Watershed Name:** [East Central Louisiana Coastal](#)

## 2010 Waterbody Report for Intracoastal Waterway-Larose To Bayou Villars



Click on the waterbody for an interactive map

### Features

- [About This Database \(Integrated Report\)](#)
- [Assessing Water Quality \(Questions and Answers\)](#)
- [Integrated Reporting Guidance](#)
- [Previous National Water Quality Reports](#)
- [EnviroMapper for Water](#)
- [AskWATERS](#)
- [EPA WATERS Homepage](#)
- [Exchange Network](#)
- [Assessment Database](#)
- [Statewide Statistical Surveys](#)
- [How's My Waterway Local Search tool](#)
- [Pollution Categories Summary Document](#)

[Waterbody History Report](#)

## Causes of Impairment for Reporting Year 2010

[Description of this table](#)

<u>Cause of Impairment</u>	<u>Cause of Impairment Group</u>	<u>State TMDL Development Status</u>
Turbidity	Turbidity	TMDL needed

---

### **TMDLs That Apply to this waterbody**

*No TMDL data have been recorded by EPA for this waterbody.*

---

### **Previous Causes of Impairments Now Attaining All Uses**

*No causes of impairment are recorded as attaining all uses for this waterbody.*



September 17, 2013

Mr. Martin Mayer  
U.S. Army Corps of Engineers  
Regulatory Branch  
P.O. Box 60267  
New Orleans, LA 70160

**RE: Lafourche Parish Govt. – Industrial Park Rd. Floodwall & North Intracoastal  
Drainage Improvements  
Larose, LA  
Lafourche Parish, Louisiana**

Dear Mr. Mayer:

KEE Environmental Services, LLC is requesting a review and comment from your agency regarding the above referenced project. This information will be utilized for a FEMA NEPA Environmental Assessment being conducted for the project. The project will consist of construction of a floodwall structure and pump station as well as improvements to existing drainage ditches located with the area depicted on the attached drawing.

Should you have any questions and/or comments concerning this matter, please contact me at 985-413-2116 or by email at [ctoups@keeev.com](mailto:ctoups@keeev.com). Response letters may be returned to my attention via email or mailed to the address at the bottom of this page.

Sincerely,

**KEE Environmental, LLC**

A handwritten signature in black ink, appearing to read "Cy J. Toups".

Cy J. Toups, P.E.  
Project Manager



**DEPARTMENT OF THE ARMY**  
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS  
P. O. BOX 60267  
NEW ORLEANS, LOUISIANA 70160-0267

**NOV 26 2013**

REPLY TO  
ATTENTION OF

Operations Division  
Operations Manager,  
Completed Works

Mr. Cy J. Toups, P.E.  
Kee Environmental Services, LLC  
1463 St. Charles Street, Suite 800  
Houma, Louisiana 70360

Dear Mr. Toups:

This is in response to your Solicitation of Views request dated September 17, 2013, concerning the Industrial Park Road Floodwall and North Intracoastal drainage improvements at Larose, Louisiana, in Lafourche Parish.

We have reviewed your request for potential Department of the Army regulatory requirements and impacts on any Department of the Army projects.

We do not anticipate any adverse impacts to any Corps of Engineers projects.

You are advised that you must obtain a permit from the South Lafourche Levee District for any work within 300 feet of a federal flood control structure such as a floodwall. Performance of all subsurface work within this area is usually restricted when the stage of the Mississippi River is above elevation +11.0 feet on the Carrollton gage, at New Orleans, Louisiana. As a consequence, subsurface work should be scheduled for performance during the low-water period (typically June through November) to avoid delays in performance of the proposed work. You must apply by letter to the South Lafourche Levee District including full-size construction plans, cross sections, and details of the proposed work. Concurrently with your application to the South Lafourche Levee District, you must also forward a copy of your letter and plans to Operations Division, Operations Manager for Completed Works of the Corps of Engineers and to the Office of Coastal Protection and Restoration Authority (CPRA) in Baton Rouge for their review and comments concerning the proposed work. The South Lafourche Levee District will not issue a permit for the work to proceed until they have obtained letters of no objection from both of these reviewing agencies. For further information regarding permit requests affecting federal flood control levees and structures, please contact Ms. Amy Powell, Operations Manager for Completed Works at (504) 862-2241.

Information and signatures obtained from recent maps, aerial photography, and local soil surveys concerning this site are indicative of the occurrence of waters of the US, including wetlands. Department of the Army (DA) permits are required prior to the deposition or redistribution of dredged or fill material into wetlands that are waters of the United States.

This preliminary determination is advisory in nature. If an approved delineation is needed please furnish us with the detailed field data concerning vegetation, soils, and hydrology that we require for all jurisdictional decisions. The fact that a field wetland delineation/determination has not been completed does not alleviate your responsibility to obtain the proper DA permits prior to working in wetlands occurring on this property.

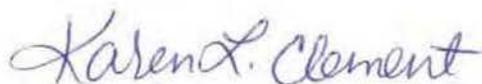
Off-site locations of activities such as borrow, disposals, haul-and detour-roads and work mobilization site developments may be subject to Department of the Army regulatory requirements and may have an impact on a Department of the Army project.

You should apply for said permit well in advance of the work to be performed. The application should include sufficiently detailed maps, drawings, photographs, and descriptive text for accurate evaluation of the proposal.

Please contact Mr. Robert Heffner, of our Regulatory Branch by telephone at (504) 862-1288, or by e-mail at Robert.A.Heffner@usace.army.mil for questions concerning wetlands determinations or need for on-site evaluations. Questions concerning regulatory permit requirements may be addressed to Mr. Darrell Barbara by telephone at (504) 862-2260 or by email at Darrell.Barbara@usace.army.mil.

Future correspondence concerning this matter should reference our account number MVN-2013-02423-SY. This will allow us to more easily locate records of previous correspondence, and thus provide a quicker response.

Sincerely,



Karen L. Clement  
Solicitation of Views Manager

Copy Furnished:

Ms. Christine Charrier  
Coastal Zone Management  
Department of Natural Resources  
Post Office Box 44487  
Baton Rouge, Louisiana 70804-4487







**Angelette-Picciola**  
Consulting Engineers & Surveyors

Neil B. Angelette, P.E., P.L.S.

Larry J. Picciola, P.E., P.L.S.

December 5, 2012

Ms. Darla Duet  
Lafourche Parish Government  
P.O. Box 425  
Mathews, Louisiana 70375

Re: Lafourche Parish Government  
Industrial Park Floodwall  
Larose, Lafourche Parish, Louisiana

Dear Ms. Darla Duet:

Please let this letter serve as a request for "no objection" on the part of your agency for the above referenced project. The Louisiana Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) is requiring us to acquire this letter of "no objection" from your agency, in order to complete an on-going FEMA grant application.

The scope of this project entails the following: (Please see enclosed maps/documents for further details.)

1. Construction of sheetpile floodwall along Industrial Park Rd. (see "Overall Site Plan" map)
2. Increase capacity of existing "T-Bois" Pump Station. (Hamilton St., see "Map of Study Area")
3. Adding one culvert across LA Hwy. 308. (in vicinity of Edward St., see "Map of Study Area")
4. Increasing several main outfall ditch capacities flowing to the 40 Arpent Canal and "T-Bois" Pump Station.

Ms. Darla Duet  
December 5, 2012  
Page 2

Please be informed, that the aforementioned project area is currently under forced drainage, and this project serves only as an improvement to the current forced drainage system. Please feel free to contact me for any further information.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kyle S. Pierce', with a long horizontal flourish extending to the right.

Kyle S. Pierce  
Designer/Senior Engineering Technician

LJP/mcp

Enclosures

080039

Charlotte A. Randolph, *Parish President*

Office of Coastal Zone Management

October 16, 2013

KEE ENVIRONMENTAL SERVICES, LLC  
Attention: Cy Toups  
1463 St. Charles Street, Suite 800  
Houma, LA 70360

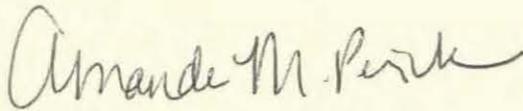
RE: Lafourche Parish Government  
P20131348

Dear Mr. Toups,

After review of the above referenced application the Lafourche Parish Coastal Zone Management Advisory Board has **NO OBJECTION** to this project as long as it meets all permit requirements from any local, state, or federal agency. However, this authorization does not eliminate the need to obtain other local, state, or federal permits that may be required.

If you have any questions or require additional information, please contact Lafourche Parish Coastal Zone Management at (985) 537-7603.

Sincerely,



Amanda M. Penick  
Lafourche Parish Permit Coordinator

AMP: lld

---

Charlotte A. Randolph	Parish President	John Arnold	District 5
Jerry Jones	District 1	Lindel Toups	District 6
Michael Delatte	District 2	Phillip Gouaux	District 7
Aaron Caillouet	District 3	Jerry Lafont	District 8
Joseph "Joe" Fertitta	District 4	Daniel Lorraine	District 9

## **Appendix No. 5**

Figures (Coastal Resources)



September 17, 2013

Mr. Karl Morgan  
LDNR – Office of Coastal Management  
Permits & Mitigation Division  
P.O. Box 44487  
Baton Rouge, LA 70804

**RE: Lafourche Parish Govt. – Industrial Park Rd. Floodwall & North Intracoastal  
Drainage Improvements  
Larose, LA  
Lafourche Parish, Louisiana**

Dear Mr. Morgan:

KEE Environmental Services, LLC is requesting a review and comment from your agency regarding the above referenced project. This information will be utilized for a FEMA NEPA Environmental Assessment being conducted for the project. The project will consist of construction of a floodwall structure and pump station as well as improvements to existing drainage ditches located with the area depicted on the attached drawing.

Should you have any questions and/or comments concerning this matter, please contact me at 985-413-2116 or by email at [ctoups@keeev.com](mailto:ctoups@keeev.com). Response letters may be returned to my attention via email or mailed to the address at the bottom of this page.

Sincerely,

**KEE Environmental, LLC**

A handwritten signature in black ink, appearing to read "Cy J. Toups".

Cy J. Toups, P.E.  
Project Manager



State of Louisiana  
DEPARTMENT OF NATURAL RESOURCES  
OFFICE OF COASTAL MANAGEMENT

09/25/2013

KEE ENVIRONMENTAL SERVICES, LLC  
1463 ST. CHARLES ST., SUITE 800  
HOUMA, LA 70360  
Attn: Cy Toups

**RE: P20131348, Solicitation of Views  
LAFOURCHE PARISH GOVERNMENT**

**Description:** The Lafourche Parish Government proposes to construct the Industrial Park Road Floodwall and North Intracoastal Drainage Improvements including a pump station. The study area encompasses approximately 733 acres.

**Location:** Bayou Lafourche at the Intracoastal Waterway; Larose, LA; Lat 29° 34' 22.19"N / Long -90° 23' 04.07"W; See plats for all coordinates of structures.

**Lafourche Parish, LA**

Dear Cy Toups:

We have received your Solicitation of Views for the above referenced project, which has been found to be inside the Louisiana Coastal Zone. In order for us to properly review and evaluate this project, we require that a complete Coastal Use Permit Application packet (Joint Application Form, locality maps, project illustration plats with plan and cross section views, etc.) along with the appropriate application fee be submitted to our office. Using your complete application, we can provide you with an official determination, and begin the processing of any Coastal Use Permit that may be required for your project. You may obtain a free application packet by calling our office at (225) 342-7591 or (800)-267-4019, or by visiting our website at <http://www.dnr.state.la.us/crm/coastmgt/cup/cup.asp>.

We recommend that, during your planning process, you make every effort to minimize impacts to vegetated wetlands. As our legislative mandate puts great emphasis on avoiding damages to these habitats, in many cases the negotiations involved in reducing such disturbances and developing the required mitigation to offset the lost habitat values delay permit approval longer than any other factor. Additionally, the following sensitive features may require additional processing time by the appropriate resource agencies: 1) Maintain Larose to Golden Meadow and Valentine to Larose (Coastal Protection & Restoration Authority, Sydney Dobson, 225-342-5374). 2) The area where the project is located is all part of the aboriginal homelands of the Chitimacha Tribe of Louisiana (Kimberly S. Walden - Cultural Director or Melanie Aymond - Research Coordinator, 337-923-9923 or 337-923-4395. 3) Federal Levee and Floodwall (North Lafourche Levee District, 985-537-2244 or ra@racillc.com) (South Lafourche Levee District, 985-632-7554 or mpunch@sllld.net).

Should you desire additional consultation with our office prior to submitting a formal application, we recommend that you call and schedule a pre-application meeting with our Permit Section staff. Such a preliminary meeting may be helpful, especially if a permit application that is as complete as possible is presented for evaluation at the pre-application meeting.

If you have any questions, would like to request an application packet or would like to schedule a pre-application meeting, please contact Mike Schulze at (225) 342-0566 or [mike.schulze@la.gov](mailto:mike.schulze@la.gov).

Sincerely,

A handwritten signature in black ink that reads "Karl L. Morgan". The signature is written in a cursive style with a long, sweeping underline.

Karl L. Morgan  
Administrator

**Karl L. Morgan/ms**

Attachments

**Final Plats:**

1) P20131348      Final Plats      09/19/2013

cc: Lafourche Basin Levee District w/plats  
North Lafourche Conservation, Levee & Drainage District w/plats  
South Lafourche Levee District w/plats  
Jessica Diez, OCM w/plats  
Kirk Kilgen, CMD/FI w/plats  
Lafourche Parish w/plats  
LAFOURCHE PARISH GOVERNMENT w/plats

<b>Permit Number: P20131348</b>			
<u>Office</u>	<u>Commentor</u>	<u>Comment Date</u>	<b>Comment</b>
Other	CAPTURE	09/27/2013 14:38:09	<a href="#">4747866 - INTERNAL COMMENTS - CODE SHEETS</a>
OCM	JIM HOLCOMBE	09/24/2013 08:21:32	This proposal should have no adverse impacts on any marsh management plans in the project area.
CPRA	SYDNEYDOBSON	09/23/2013 16:09:15	CUP# P20131348; With respect to its potential impact on the Map ID: 03a.HP.20 Project Name: Maintain Larose to Golden Meadow, OCPR Master Plan Review has no objection at this time to the above referenced CUP application.



**Angelette-Picciola**  
Consulting Engineers & Surveyors

Neil B. Angelette, P.E., P.L.S.

Larry J. Picciola, P.E., P.L.S.

December 5, 2012

Mr. Keith Lovell  
Louisiana Office of Coastal Management  
Post Office Box 44487  
Baton Rouge, Louisiana 70804-4487

*RESPONSE FROM  
Keith*

Re: Lafourche Parish Government  
Industrial Park Floodwall  
Larose, Lafourche Parish, Louisiana

Dear Mr. Lovell:

Please let this letter serve as a request for "no objection" on the part of your agency for the above referenced project. The Louisiana Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) is requiring us to acquire this letter of "no objection" from your agency, in order to complete an on-going FEMA grant application.

The scope of this project entails the following: (Please see enclosed maps/documents for further details.)

1. Construction of sheetpile floodwall along Industrial Park Rd. (see "Overall Site Plan" map)
2. Increase capacity of existing "T-Bois" Pump Station. (Hamilton St., see "Map of Study Area")
3. Adding one culvert across LA Hwy. 308. (in vicinity of Edward St., see "Map of Study Area")
4. Increasing several main outfall ditch capacities flowing to the 40 Arpent Canal and "T-Bois" Pump Station.

Mr. Keith Lovell  
December 5, 2012  
Page 2

Please be informed, that the aforementioned project area is currently under forced drainage, and this project serves only as an improvement to the current forced drainage system. Please feel free to contact me for any further information.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kyle S. Pierce', with a long horizontal flourish extending to the right.

Kyle S. Pierce  
Designer/Senior Engineering Technician

LJP/mcp

Enclosures

080039

## Kyle Pierce

---

**From:** Jeff Harris <Jeff.Harris@LA.GOV>  
**Sent:** Tuesday, December 11, 2012 9:27 AM  
**To:** Kyle Pierce  
**Subject:** Coastal Zone Management inquiry  
**Attachments:** C20120326 rev 111412.pdf

Mr. Pierce—

The Louisiana Department of Natural Resources, Office of Coastal Management, has received your letter of December 5, 2012, requesting a letter of no objection on behalf of the Lafourche Parish government, concerning the Industrial Park Floodwall in Larose, Lafourche Parish.

Please see the attached letter, dated September 28, 2012. Effective October 1, the Office of Coastal Management has determined that any and all federal financial assistance is consistent with the Louisiana Coastal Resources Program, and a copy of the attached letter should satisfy the awarding agency. Future coordination with OCM on the matter of financial assistance should not be required; a copy of our September 28 letter should satisfy these requirements.

If your inquiry concerns the need for a Coastal Use Permit or other approvals from this Office for the actual construction of a project, please follow the procedures for Solicitations of Views or Requests for Determinations, as outlined in the letter.

Thanks,

--Jeff

Jeff Harris  
Consistency Section  
Office of Coastal Management  
Louisiana Department of Natural Resources  
(225) 342-7949

---

### CONFIDENTIALITY NOTICE

This email communication may contain confidential information which also may be legally privileged and is intended only for the use of the intended recipients identified above. If you are not the intended recipient of this communication, you are hereby notified that any unauthorized review, use, dissemination, distribution, downloading, or copying of this communication is strictly prohibited. If you are not the intended recipient and have received this communication in error, please immediately notify us by reply email, delete the communication and destroy all copies.

### COMPUTER SYSTEM USE/CONSENT NOTICE

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BOBBY JINDAL  
GOVERNOR



STEPHEN CHUSTZ  
INTERIM SECRETARY

State of Louisiana  
DEPARTMENT OF NATURAL RESOURCES  
OFFICE OF COASTAL MANAGEMENT

September 28, 2012

To whom it may concern:

The Louisiana Department of Natural Resources, Office of Coastal Management (LDNR OCM) administers the state's federally-approved Coastal Zone Management (CZM) program.

A number of federal and state agencies are involved in providing financial assistance to state and local governments, non-governmental organizations, businesses, and individuals in Louisiana. As part of their award process, many of these agencies require the applicant to coordinate with the Louisiana CZM program. This coordination is generally intended to address one of two questions: concerns about awarding the financial assistance, or concerns about implementing the proposed project.

As a result of an internal review of program functions, OCM is streamlining its financial assistance review procedure to ensure response to all requests in a timely and appropriate manner. The OCM is confident that this procedure change will greatly improve office productivity, and provide for better accountability to the public we serve. Consequently, as of October 1, 2012, the coordination with OCM concerning applications for federal financial assistance should follow the procedures below, depending on the nature of the inquiry:

**Consistency review for Federal Assistance**

Federal regulations at 15 CFR §930.90 *et seq.* require state and local government bodies applying for federal financial assistance (grants, loans, guarantees, insurance, contractual arrangements, or other form of financial aid) to submit a request for Consistency review of that assistance to OCM. Since the inception of the Louisiana Coastal Resources Program in 1980, OCM has never found that financial assistance for a proposed project would be inconsistent with the state Coastal Zone Management program. The Office of Coastal Management therefore is issuing this letter of general consistency concurrence, which shall serve as formal notification that, as of October 1, 2012, the granting of any financial assistance as defined at 15 CFR §930.91, is fully consistent with the Louisiana Coastal Resources Program. Federal agencies should not require applicants for financial assistance to seek OCM's approval for that assistance.

**Request for Determination for project implementation**

If the applicant is seeking comments on the need to obtain a Coastal Use Permit or other authorization from OCM, for projects in or near to the Louisiana Coastal Zone, a Request for Determination or Solicitation of Views should be submitted to OCM's Permits and Mitigation

Post Office Box 44487 • Baton Rouge, Louisiana 70804-4487  
617 North Third Street • 10th Floor • Suite 1078 • Baton Rouge, Louisiana 70802  
(225) 342-7591 • Fax (225) 342-9439 • <http://www.dnr.louisiana.gov>  
An Equal Opportunity Employer

Division. Instructions and downloadable and online applications are located online at <http://dnr.louisiana.gov/index.cfm?md=pagebuilder&tmp=home&pid=93>. In Step 3 of the application, the box for Request for Determination or Solicitation of Views should be checked. Questions regarding this process may be directed to the OCM Permits Section staff at (225) 342-7591 or 1-800-267-4019, or by mail at P.O. Box 44487, Baton Rouge, LA 70804.

### **Outside of the Coastal Zone**

Projects which are clearly located outside of the Coastal Zone and are not likely to have an impact on coastal waters generally will not require coordination with the OCM. However, projects near the Coastal Zone boundary where there may be some doubt, or those which may involve discharges into waters that flow into the Coastal Zone, should be submitted to OCM for review. A map of the Coastal Zone may be found at

<http://dnr.louisiana.gov/index.cfm?md=pagebuilder&tmp=home&pid=89&pnid=0&nid=39>.

Finally, OCM may find it necessary to change or rescind the provisions of this letter. Should this become necessary, OCM will publish a public notice in the Official State Journal (The Baton Rouge Advocate) and on the DNR web page, and attempt to contact all affected federal agencies directly.

Questions concerning these procedures should be addressed to Mr. Jeff Harris of the Consistency Section, at (225) 342-7949 or via e-mail to [Jeff.Harris@LA.gov](mailto:Jeff.Harris@LA.gov).

Sincerely,

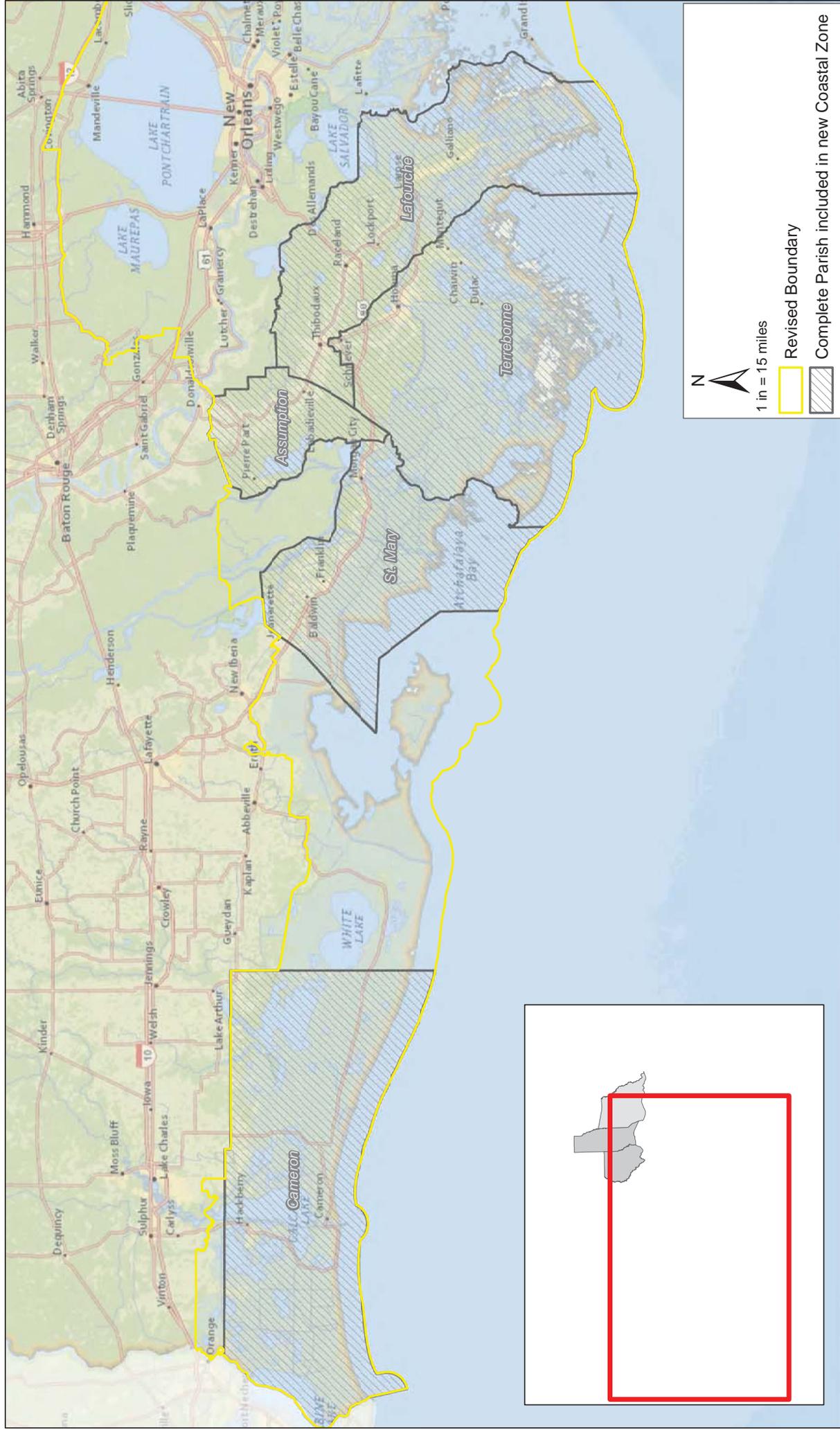


Keith Lovell  
Acting Administrator  
Interagency Affairs/Field Services Division

cc: Karl Morgan, P/M Division  
Consistency file C20120326

rev 11/14/2012

# Complete Parishes now included in the Coastal Zone



## **Appendix No. 6**

Figures (Biological Resources)



September 10, 2013

Ms. Debbie Fuller  
Fish and Wildlife Service  
646 Cajundome Blvd., Suite 400  
Lafayette, LA 70506  
[Deborah\\_Fuller@fws.gov](mailto:Deborah_Fuller@fws.gov)

**RE: Lafourche Parish Govt. – Industrial Park Rd. Floodwall & North Intracoastal  
Drainage Improvements  
Larose, LA  
Lafourche Parish, Louisiana**

Dear Ms. Fuller:

KEE Environmental Services, LLC is requesting a letter from your agency indicating the status of endangered species in the area of the above referenced project. This information will be utilized for a FEMA NEPA Environmental Assessment being conducted for the project. The project will consist of construction of a floodwall structure and pump station as well as improvements to existing drainage ditches located with the area depicted on the attached drawing.

Should you have any questions and/or comments concerning this matter, please contact me at 985-413-2116 or by email at [ctoups@keeenv.com](mailto:ctoups@keeenv.com).

Sincerely,

**KEE Environmental, LLC**

Cy J. Toups, P.E.  
Project Manager

This project has been reviewed for effects to Federal trust resources under our jurisdiction and currently protected by the Endangered Species Act of 1973 (Act). The project, as proposed,  will have no effect on those resources.  is not likely to adversely affect those resources. This finding fulfills the requirements under Section 7(a)(2) of the Act.

*Deborah A. Fuller* Sept 12, 2013  
Acting Supervisor  
Louisiana Field Office  
U.S. Fish and Wildlife Service



September 17, 2013

Mr. Kyle Balkum  
LDWF – Biologist Program Mgr.  
P.O. Box 98000  
Baton Rouge, LA 70898

**RE: Lafourche Parish Govt. – Industrial Park Rd. Floodwall & North Intracoastal  
Drainage Improvements  
Larose, LA  
Lafourche Parish, Louisiana**

Dear Mr. Balkum:

KEE Environmental Services, LLC is requesting a review and comment from your agency regarding the above referenced project. This information will be utilized for a FEMA NEPA Environmental Assessment being conducted for the project. The project will consist of construction of a floodwall structure and pump station as well as improvements to existing drainage ditches located with the area depicted on the attached drawing.

Should you have any questions and/or comments concerning this matter, please contact me at 985-413-2116 or by email at [ctoups@keeenv.com](mailto:ctoups@keeenv.com). Response letters may be returned to my attention via email or mailed to the address at the bottom of this page.

Sincerely,

**KEE Environmental, LLC**

A handwritten signature in black ink, appearing to read 'Cy J. Toups', is written over a light blue horizontal line.

Cy J. Toups, P.E.  
Project Manager



Angelette-Picciola  
Consulting Engineers & Surveyors

Neil B. Angelette, P.E., P.L.S.

Larry J. Picciola, P.E., P.L.S.

December 5, 2012

Louisiana Department of Wildlife and Fisheries  
Hammond Field Office  
42371 Phyllis Ann Drive  
Hammond, Louisiana 70403

*Response FROM  
Vraggman*

Re: Lafourche Parish Government  
Industrial Park Floodwall  
Larose, Lafourche Parish, Louisiana

Dear Sir or Madam:

Please let this letter serve as a request for "no objection" on the part of your agency for the above referenced project. The Louisiana Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) is requiring us to acquire this letter of "no objection" from your agency, in order to complete an on-going FEMA grant application.

The scope of this project entails the following: (Please see enclosed maps/documents for further details.)

1. Construction of sheetpile floodwall along Industrial Park Rd. (see "Overall Site Plan" map)
2. Increase capacity of existing "T-Bois" Pump Station. (Hamilton St., see "Map of Study Area")
3. Adding one culvert across LA Hwy. 308. (in vicinity of Edward St., see "Map of Study Area")
4. Increasing several main outfall ditch capacities flowing to the 40 Arpent Canal and "T-Bois" Pump Station.

Sir or Madam  
December 5, 2012  
Page 2

Please be informed, that the aforementioned project area is currently under forced drainage, and this project serves only as an improvement to the current forced drainage system. Please feel free to contact me for any further information.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kyle S. Pierce', with a long horizontal flourish extending to the right.

Kyle S. Pierce  
Designer/Senior Engineering Technician

LJP/mcp

Enclosures

080039

## Kyle Pierce

---

**From:** McDonald, Vaughan <vmcdonald@wlf.la.gov>  
**Sent:** Thursday, January 03, 2013 2:19 PM  
**To:** Kyle Pierce  
**Subject:** Lafourche Parish Government, Industrial Park Floodwall

Kyle,

Christian in our Hammond Office received a "no objection" request from you for the above mentioned project. Christian sent it to me at my request. Upon reviewing it there nothing that I need to do w/ it since the project does not occur on any LDWF properties. Any comments on this project from our Department will come during the public notice period once you submit your DNR/COE permit application.

Vaughan McDonald  
Biologist  
LA Dept. of Wildlife & Fisheries  
Coastal Nongame Resources  
2021 Lakeshore Drive, Suite 210  
New Orleans, LA 70122  
(504)284-5267  
(504)284-5270 fax



**ENDANGERED, THREATENED, AND CANDIDATE SPECIES OF LOUISIANA**

E=Endangered T=Threatened C=Candidate CH=Critical Habitat\*

<u>PARISH<sup>†</sup>/SPECIES</u>	<u>OCCURRENCE</u>	<u>GROUP</u>	<u>STATUS</u>
<b><u>ACADIA</u></b>			
Pipit, Sprague's	Known	Bird	C
<b><u>ALLEN</u></b>			
Chaff-seed, American	Known	Plant	E
Pipit, Sprague's	Known	Bird	C
Woodpecker, Red-cockaded	Known	Bird	E
<b><u>ASCENSION</u></b>			
Manatee, West Indian	Seasonal	Mammal	E
Mussel, Alabama Heelsplitter	Known	Mollusk	T
Sturgeon, Gulf	Known	Fish	T
Sturgeon, Pallid	Known	Fish	E
<b><u>AVOYELLES</u></b>			
Bear, Louisiana Black	Known	Mammal	T, CH
Pipit, Sprague's	Known	Bird	C
Sturgeon, Pallid	Known	Fish	E
<b><u>BEAUREGARD</u></b>			
Woodpecker, Red-cockaded	Known	Bird	E
<b><u>BIENVILLE</u></b>			
Earth Fruit	Possible	Plant	T
Pipit, Sprague's	Known	Bird	C
Snake, Louisiana Pine	Known	Reptile	C
Woodpecker, Red-cockaded	Known	Bird	E
<b><u>BOSSIER</u></b>			
Pipit, Sprague's	Known	Bird	C
Sturgeon, Pallid	Possible	Fish	E
Tern, Interior Least	Known	Bird	E
Woodpecker, Red-cockaded	Known	Bird	E
<b><u>CADDO</u></b>			
Earth Fruit	Known	Plant	T
Pipit, Sprague's	Known	Bird	C
Sturgeon, Pallid	Possible	Fish	E
Tern, Interior Least	Known	Bird	E
Woodpecker, Red-cockaded	Known	Bird	E
<b><u>CALCASIEU</u></b>			
Pipit, Sprague's	Known	Bird	C
Woodpecker, Red-cockaded	Known	Bird	E
<b><u>CAMERON</u></b>			
Manatee, West Indian	Seasonal	Mammal	E
Pipit, Sprague's	Known	Bird	C
Plover, Piping	Known	Bird	T, CH
Sturgeon, Gulf	Possible	Fish	T
Turtle, Green Sea	Known	Reptile	T
Turtle, Hawksbill Sea	Known	Reptile	E
Turtle, Kemp's Ridley Sea	Known	Reptile	E
Turtle, Leatherback Sea	Known	Reptile	E
Turtle, Loggerhead Sea	Known	Reptile	T

<u>PARISH<sup>†</sup>/SPECIES</u>	<u>OCCURRENCE</u>	<u>GROUP</u>	<u>STATUS</u>
<b><u>CATAHOULA</u></b>			
Bear, Louisiana Black	Known	Mammal	T, CH
Pipit, Sprague's	Known	Bird	C
Woodpecker, Red-cockaded	Known	Bird	E
Sturgeon, Pallid	Possible	Fish	E
<b><u>CONCORDIA</u></b>			
Bear, Louisiana Black	Known	Mammal	T, CH
Mussel, Fat Pocketbook Pearly	Known	Mollusk	E
Sturgeon, Pallid	Known	Fish	E
Tern, Interior Least	Known	Bird	E
<b><u>DESOTO</u></b>			
Earth Fruit	Known	Plant	T
Pipit, Sprague's	Known	Bird	C
Woodpecker, Red-cockaded	Known	Bird	E
<b><u>EAST BATON ROUGE</u></b>			
Manatee, West Indian	Seasonal	Mammal	E
Mussel, Alabama Heelsplitter	Known	Mollusk	T
Pipit, Sprague's	Known	Bird	C
Sturgeon, Gulf	Known	Fish	T
Sturgeon, Pallid	Known	Fish	E
<b><u>EAST CARROLL</u></b>			
Bear, Louisiana Black	Known	Mammal	T, CH
Pipit, Sprague's	Known	Bird	C
Mussel, Fat Pocketbook Pearly	Known	Mollusk	E
Sturgeon, Pallid	Known	Fish	E
Tern, Interior Least	Known	Bird	E
<b><u>EAST FELICIANA</u></b>			
Mussel, Alabama Heelsplitter	Known	Mollusk	T
Sturgeon, Gulf	Possible	Fish	T
Sturgeon, Pallid	Known	Fish	E
<b><u>EVANGELINE</u></b>			
Woodpecker, Red-cockaded	Known	Bird	E
<b><u>FRANKLIN</u></b>			
Bear, Louisiana Black	Known	Mammal	T, CH
<b><u>GRANT</u></b>			
Mussel, Louisiana Pearlshell	Known	Mollusk	T
Sturgeon, Pallid	Possible	Fish	E
Tern, Interior Least	Possible	Bird	E
Woodpecker, Red-cockaded	Known	Bird	E
<b><u>IBERIA</u></b>			
Bear, Louisiana Black	Known	Mammal	T, CH
Manatee, West Indian	Seasonal	Mammal	E
Pipit, Sprague's	Known	Bird	C
Sturgeon, Gulf	Possible	Fish	T
Sturgeon, Pallid	Known	Fish	E
Turtle, Green Sea	Known	Reptile	T
Turtle, Hawksbill Sea	Known	Reptile	E
Turtle, Kemp's Ridley Sea	Known	Reptile	E
Turtle, Leatherback Sea	Known	Reptile	E
Turtle, Loggerhead Sea	Known	Reptile	T

<u>PARISH<sup>†</sup>/SPECIES</u>	<u>OCCURRENCE</u>	<u>GROUP</u>	<u>STATUS</u>
<b><u>IBERVILLE</u></b>			
Bear, Louisiana Black	Known	Mammal	T, CH
Pipit, Sprague's	Known	Bird	C
Sturgeon, Gulf	Possible	Fish	T
Sturgeon, Pallid	Known	Fish	E
<b><u>JACKSON</u></b>			
Pipit, Sprague's	Known	Bird	C
Woodpecker, Red-cockaded	Known	Bird	E
<b><u>JEFFERSON</u></b>			
Manatee, West Indian	Seasonal	Mammal	E
Plover, Piping	Known	Bird	T, CH
Sturgeon, Gulf	Known	Fish	T, CH
Sturgeon, Pallid	Known	Fish	E
Turtle, Green Sea	Known	Reptile	T
Turtle, Hawksbill Sea	Known	Reptile	E
Turtle, Kemp's Ridley Sea	Known	Reptile	E
Turtle, Leatherback Sea	Known	Reptile	E
Turtle, Loggerhead Sea	Known	Reptile	T
<b><u>JEFFERSON DAVIS</u></b>			
Pipit, Sprague's	Known	Bird	C
<b><u>LAFAYETTE</u></b>			
Pipit, Sprague's	Known	Bird	C
<b><u>LAFOURCHE</u></b>			
Manatee, West Indian	Seasonal	Mammal	E
Plover, Piping	Known	Bird	T, CH
Sturgeon, Gulf	Possible	Fish	T
Turtle, Green Sea	Known	Reptile	T
Turtle, Hawksbill Sea	Known	Reptile	E
Turtle, Kemp's Ridley Sea	Known	Reptile	E
Turtle, Leatherback Sea	Known	Reptile	E
Turtle, Loggerhead Sea	Known	Reptile	T
<b><u>LA SALLE</u></b>			
Pipit, Sprague's	Known	Bird	C
Woodpecker, Red-cockaded	Known	Bird	E
<b><u>LIVINGSTON</u></b>			
Manatee, West Indian	Seasonal	Mammal	E
Mussel, Alabama Heelsplitter	Known	Mollusk	T
Sturgeon, Gulf	Known	Fish	T
Woodpecker, Red-cockaded	Known	Bird	E
<b><u>MADISON</u></b>			
Bear, Louisiana Black	Known	Mammal	T, CH
Mussel, Fat Pocketbook Pearly	Known	Mollusk	E
Sturgeon, Pallid	Known	Fish	E
Tern, Interior Least	Known	Bird	E
<b><u>MOREHOUSE</u></b>			
Mussel, Pink Mucket Pearly	Known	Mollusk	E
Mussel, Rabbitsfoot	Known	Mollusk	C
Woodpecker, Red-cockaded	Known	Bird	E

<u>PARISH<sup>†</sup>/SPECIES</u>	<u>OCCURRENCE</u>	<u>GROUP</u>	<u>STATUS</u>
<b><u>NATCHITOCHEs</u></b>			
Pipit, Sprague's	Known	Bird	C
Snake, Louisiana Pine	Known	Reptile	C
Sturgeon, Pallid	Possible	Fish	E
Tern, Interior Least	Known	Bird	E
Woodpecker, Red-cockaded	Known	Bird	E
<b><u>ORLEANS</u></b>			
Manatee, West Indian	Seasonal	Mammal	E
Pipit, Sprague's	Known	Bird	C
Sturgeon, Gulf	Known	Fish	T, CH
Sturgeon, Pallid	Known	Fish	E
<b><u>OUACHITA</u></b>			
Woodpecker, Red-cockaded	Known	Bird	E
<b><u>PLAQUEMINES</u></b>			
Manatee, West Indian	Seasonal	Mammal	E
Pipit, Sprague's	Known	Bird	C
Plover, Piping	Known	Bird	T, CH
Sturgeon, Gulf	Known	Fish	T
Sturgeon, Pallid	Known	Fish	E
Turtle, Green Sea	Known	Reptile	T
Turtle, Hawksbill Sea	Known	Reptile	E
Turtle, Kemp's Ridley Sea	Known	Reptile	E
Turtle, Leatherback Sea	Known	Reptile	E
Turtle, Loggerhead Sea	Known	Reptile	T
<b><u>POINTE COUPEE</u></b>			
Bear, Louisiana Black	Known	Mammal	T, CH
Sturgeon, Pallid	Known	Fish	E
<b><u>RAPIDES</u></b>			
Mussel, Louisiana Pearlshell	Known	Mollusk	T
Pipit, Sprague's	Known	Bird	C
Sturgeon, Pallid	Possible	Fish	E
Tern, Interior Least	Possible	Bird	E
Woodpecker, Red-cockaded	Known	Bird	E
<b><u>RED RIVER</u></b>			
Earth Fruit	Possible	Plant	T
Pipit, Sprague's	Known	Bird	C
Sturgeon, Pallid	Possible	Fish	E
Tern, Interior Least	Known	Bird	E
<b><u>RICHLAND</u></b>			
Bear, Louisiana Black	Known	Mammal	T, CH
Pipit, Sprague's	Known	Bird	C
<b><u>SABINE</u></b>			
Earth Fruit	Possible	Plant	T
Snake, Louisiana Pine	Known	Reptile	C
Woodpecker, Red-cockaded	Known	Bird	E
<b><u>ST. BERNARD (cont. on next page)</u></b>			
Manatee, West Indian	Seasonal	Mammal	E
Pipit, Sprague's	Known	Bird	C
Plover, Piping	Known	Bird	T, CH
Sturgeon, Gulf	Known	Fish	T, CH
Sturgeon, Pallid	Known	Fish	E

<u>PARISH<sup>†</sup>/SPECIES</u>	<u>OCCURRENCE</u>	<u>GROUP</u>	<u>STATUS</u>
<b><u>ST. BERNARD (cont.)</u></b>			
Turtle, Green Sea	Known	Reptile	T
Turtle, Hawksbill Sea	Known	Reptile	E
Turtle, Kemp's Ridley Sea	Known	Reptile	E
Turtle, Leatherback Sea	Known	Reptile	E
Turtle, Loggerhead Sea	Known	Reptile	T
<b><u>ST. CHARLES</u></b>			
Manatee, West Indian	Seasonal	Mammal	E
Pipit, Sprague's	Known	Bird	C
Sturgeon, Gulf	Known	Fish	T
Sturgeon, Pallid	Known	Fish	E
<b><u>ST. HELENA</u></b>			
Mussel, Alabama Heelsplitter	Known	Mollusk	T
Sturgeon, Gulf	Known	Fish	T
<b><u>ST. JAMES</u></b>			
Manatee, West Indian	Seasonal	Mammal	E
Sturgeon, Gulf	Known	Fish	T
Sturgeon, Pallid	Known	Fish	E
<b><u>ST. JOHN THE BAPTIST</u></b>			
Manatee, West Indian	Seasonal	Mammal	E
Mussel, Alabama Heelsplitter	Possible	Mollusk	T
Pipit, Sprague's	Known	Bird	C
Sturgeon, Gulf	Known	Fish	T
Sturgeon, Pallid	Known	Fish	E
<b><u>ST. LANDRY</u></b>			
Bear, Louisiana Black	Possible	Mammal	T
Sturgeon, Pallid	Known	Fish	E
<b><u>ST. MARTIN</u></b>			
Bear, Louisiana Black	Known	Mammal	T, CH
Pipit, Sprague's	Known	Bird	C
Sturgeon, Pallid	Known	Fish	E
<b><u>ST. MARY</u></b>			
Bear, Louisiana Black	Known	Mammal	T, CH
Manatee, West Indian	Seasonal	Mammal	E
Plover, Piping	Known	Bird	T, CH
Sturgeon, Gulf	Possible	Fish	T
Sturgeon, Pallid	Known	Fish	E
Turtle, Green Sea	Known	Reptile	T
Turtle, Hawksbill Sea	Known	Reptile	E
Turtle, Kemp's Ridley Sea	Known	Reptile	E
Turtle, Leatherback Sea	Known	Reptile	E
Turtle, Loggerhead Sea	Known	Reptile	T
<b><u>ST. TAMMANY</u></b>			
Manatee, West Indian	Seasonal	Mammal	E
Mussel, Alabama Heelsplitter	Known	Mollusk	T
Pipit, Sprague's	Known	Bird	C
Quillwort, Louisiana	Known	Plant	E
Sturgeon, Gulf	Known	Fish	T, CH
Tortoise, Gopher	Known	Reptile	T
Turtle, Ringed Map	Known	Reptile	T
Woodpecker, Red-cockaded	Known	Bird	E

<u>PARISH†/SPECIES</u>	<u>OCCURRENCE</u>	<u>GROUP</u>	<u>STATUS</u>
<b><u>TANGIPAHOA</u></b>			
Manatee, West Indian	Seasonal	Mammal	E
Sturgeon, Gulf	Known	Fish	T
Tortoise, Gopher	Known	Reptile	T
Woodpecker, Red-cockaded	Known	Bird	E
<b><u>TENSAS</u></b>			
Bear, Louisiana Black	Known	Mammal	T, CH
Mussel, Fat Pocketbook Pearly	Known	Mollusk	E
Pipit, Sprague's	Known	Bird	C
Sturgeon, Pallid	Known	Fish	E
Tern, Interior Least	Known	Bird	E
<b><u>TERREBONNE</u></b>			
Manatee, West Indian	Seasonal	Mammal	E
Pipit, Sprague's	Known	Bird	C
Plover, Piping	Known	Bird	T, CH
Sturgeon, Gulf	Possible	Fish	T
Turtle, Green Sea	Known	Reptile	T
Turtle, Hawksbill Sea	Known	Reptile	E
Turtle, Kemp's Ridley Sea	Known	Reptile	E
Turtle, Leatherback Sea	Known	Reptile	E
Turtle, Loggerhead Sea	Known	Reptile	T
<b><u>UNION</u></b>			
Woodpecker, Red-cockaded	Known	Bird	E
<b><u>VERMILION</u></b>			
Manatee, West Indian	Seasonal	Mammal	E
Pipit, Sprague's	Known	Bird	C
Plover, Piping	Known	Bird	T, CH
Sturgeon, Gulf	Possible	Fish	T
Turtle, Green Sea	Known	Reptile	T
Turtle, Hawksbill Sea	Known	Reptile	E
Turtle, Kemp's Ridley Sea	Known	Reptile	E
Turtle, Leatherback Sea	Known	Reptile	E
Turtle, Loggerhead Sea	Known	Reptile	T
<b><u>VERNON</u></b>			
Snake, Louisiana Pine	Known	Reptile	C
Woodpecker, Red-cockaded	Known	Bird	E
<b><u>WASHINGTON</u></b>			
Mussel, Alabama Heelsplitter	Known	Mollusk	T
Quillwort, Louisiana	Known	Plant	E
Sturgeon, Gulf	Known	Fish	T, CH
Tortoise, Gopher	Known	Reptile	T
Turtle, Ringed Map	Known	Reptile	T
<b><u>WEBSTER</u></b>			
Woodpecker, Red-cockaded	Known	Bird	E
<b><u>WEST BATON ROUGE</u></b>			
Pipit, Sprague's	Known	Bird	C
Sturgeon, Pallid	Known	Fish	E
<b><u>WEST CARROLL</u></b>			
Bear, Louisiana Black	Known	Mammal	T, CH

<u>PARISH<sup>†</sup>/SPECIES</u>	<u>OCCURRENCE</u>	<u>GROUP</u>	<u>STATUS</u>
<b><u>WEST FELICIANA</u></b>			
Bear, Louisiana Black	Known	Mammal	T, CH
Pipit, Sprague's	Known	Bird	C
Sturgeon, Pallid	Known	Fish	E
<b><u>WINN</u></b>			
Earth Fruit	Known	Plant	T
Sturgeon, Pallid	Possible	Fish	E
Tern, Interior Least	Possible	Bird	E
Woodpecker, Red-cockaded	Known	Bird	E

\*Endangered – any species which is in danger of extinction throughout all or a significant portion of its range.

\*Threatened – any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

\*Candidate – plant and animal taxa considered for possible addition to the List of Endangered and Threatened Species. These are taxa for which the Service has on file sufficient information on biological vulnerability and threat(s) to support issuance of a proposal to list, but issuance of a proposed rule is currently precluded by higher priority listing actions.

\*Critical Habitat – for listed species consists of: (1) the specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of section 4 of the Act, on which are found those physical or biological features (constituent elements) (a) essential to the conservation of the species and (b) which may require special management considerations or protection; and (2) specific areas outside the geographical area occupied by the species at the time it is listed in accordance with the provisions of section 4 of the Act, upon a determination by the Secretary that such areas are essential for the conservation of the species.

<sup>†</sup>If a Parish is not listed here, there are no known occurrences of a threatened, endangered, or candidate species, or their critical habitat, for that Parish.

## THREATENED AND ENDANGERED SPECIES

<u>MAMMALS</u>	<u>STATUS</u>	<u>GENERAL DISTRIBUTION IN LOUISIANA</u>
Bear, Louisiana ( <i>Ursus americanus luteolus</i> )	Threatened	Entire state
Manatee, West Indian ( <i>Trichechus manatus</i> )	Endangered	Lake Pontchartrain & tributaries on North shore; rare along Gulf coast
Panther, Florida ( <i>Felis concolor coryi</i> )	Endangered <sup>1</sup>	Entire state
Whale, finback ( <i>Balaenoptera physalus</i> )	Endangered	Coastal waters
Whale, humpback ( <i>Megaptera novaeangliae</i> )	Endangered <sup>2</sup>	Coastal waters
Whale, right ( <i>Eubalaena glacialis</i> )	Endangered <sup>2</sup>	Coastal waters
Whale, sei ( <i>Balaenoptera borealis</i> )	Endangered <sup>2</sup>	Coastal waters
Whale, sperm ( <i>Physeter catodon</i> )	Endangered <sup>2</sup>	Coastal waters
Wolf, red ( <i>Canis rufus</i> )	Endangered <sup>1</sup>	Cameron & Calcasieu Parishes
<u>BIRDS</u>		
Curlew, Eskimo ( <i>Numenius borealis</i> )	Endangered <sup>1</sup>	Entire state
Pipit, Sprague's ( <i>Anthus spragueii</i> )	Candidate	Entire state
Plover, piping ( <i>Charadrius melodus</i> )	Threatened	Coast
Tern, interior least ( <i>Sterna antillarum</i> )	Endangered	Mississippi River, north of Baton Rouge; Red River, north of Colfax
Warbler, Bachman's ( <i>Vermivora bachmanii</i> )	Endangered <sup>3</sup>	Entire state
Woodpecker, ivory-billed ( <i>Campephilus principalis</i> )	Endangered <sup>1</sup>	Entire state
Woodpecker, red-cockaded ( <i>Picoides borealis</i> )	Endangered	Entire state (pine forests)
<u>REPTILES</u>		
Alligator, American ( <i>Alligator mississippiensis</i> )	Threatened (S/A) <sup>4</sup>	Entire state
Snake, Louisiana pine ( <i>Pituophis ruthveni</i> )	Candidate	Bienville, Natchitoches, Sabine, & Vernon Parishes
Tortoise, gopher ( <i>Gopherus polyphemus</i> )	Threatened	Washington, St. Tammany, & Tangipahoa Parishes
Turtle, Kemp's (Atlantic) ridley sea ( <i>Lepidochelys kempii</i> )	Endangered <sup>5</sup>	Coastal waters
Turtle, green sea ( <i>Chelonia mydas</i> )	Threatened <sup>5</sup>	Coastal waters
Turtle, hawksbill sea ( <i>Eretmochelys imbricata</i> )	Endangered <sup>5</sup>	Coastal waters
Turtle, leatherback sea ( <i>Dermochelys coriacea</i> )	Endangered <sup>5</sup>	Coastal waters
Turtle, loggerhead sea ( <i>Caretta caretta</i> )	Threatened <sup>5</sup>	Coastal waters
Turtle, ringed map (=sawback) ( <i>Graptemys oculifera</i> )	Threatened	Pearl & Bogue Chitto Rivers

**FISH**

Sawfish, Smalltooth ( <i>Pristis pectinata</i> )	Endangered <sup>2</sup>	Gulf of Mexico: Texas to Florida
Sturgeon, Gulf ( <i>Acipenser oxyrhynchus desotoi</i> )	Threatened <sup>5</sup>	Pearl River & Lake Pontchartrain tributaries
Sturgeon, pallid ( <i>Scaphirhynchus albus</i> )	Endangered	Mississippi River & tributaries
Sturgeon, Shovelnose ( <i>Scaphirhynchus platyrhynchus</i> )	Threatened (S/A) <sup>6</sup>	Mississippi River & tributaries

**INVERTEBRATES**

Mussel, Alabama heelsplitter (=inflated) ( <i>Potamilus inflatus</i> )	Threatened	Amite River, possible in Pearl River
Mussel, fat pocketbook pearly ( <i>Potamilus capax</i> )	Endangered	Mississippi River
Mussel, Louisiana pearlshell ( <i>Margaritifera hembeli</i> )	Threatened	Bayous Boeuf, Rapides, & Rigolette drainages Rapides & Grant Parishes
Mussel, pink mucket pearly ( <i>Lampsilis abrupta</i> )	Endangered	Bayou Bartholomew
Mussel, rabbitsfoot ( <i>Quadrula cylindrica</i> )	Candidate	Bayou Bartholomew

**PLANTS**

American chaff-seed ( <i>Schwalbea americana</i> )	Endangered	Allen Parish
Earth fruit ( <i>Geocarpon minimum</i> )	Threatened	Caddo, DeSoto, & Winn Parishes; possible in Bienville, Caldwell, Morehouse, & Sabine Parishes
Louisiana quillwort ( <i>Isoetes louisianensis</i> )	Endangered	Washington & St. Tammany Parishes

<sup>1</sup>The Florida panther, red wolf, Eskimo curlew, and ivory-billed woodpecker are presumed to be extinct in the state.

<sup>2</sup>The National Marine Fisheries Service, St. Petersburg, Florida, has consultation authority for these species.

<sup>3</sup>There has been no confirmed Bachman's Warbler U.S. nesting ground sighting since the mid-1960s, however, several sightings of the species have occurred on wintering grounds during the last decade. This species may be extirpated in Louisiana.

<sup>4</sup>For law enforcement purposes the alligators in Louisiana are classified as "Threatened due to Similarity of Appearance." They are biologically neither endangered nor threatened. Regulated harvest is permitted under State law. September 21, 1998.

<sup>5</sup>The U.S. Fish and Wildlife Service and the National Marine Fisheries Service share consultation authority for these species.

<sup>6</sup>For law enforcement purposes shovelnose sturgeon are classified as "Threatened due to Similarity of Appearance" wherever they coexist with the endangered pallid sturgeon. They are biologically neither endangered nor threatened but this designation extends the ESA take prohibitions to shovelnose sturgeon, shovelnose-pallid sturgeon hybrids and their roe when associated with a commercial fishing activity.

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# Louisiana Natural and Scenic Rivers Descriptions and Map

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**Natural and Scenic Rivers - RS 56:1847**

1. **Abita River** in St. Tammany Parish.
2. **Amite River** - East Feliciana - From the Louisiana-Mississippi state line to La. Hwy. 37.
3. **Barnes Creek** - from La. Hwy. 27 to the Calcasieu River in Allen and Beauregard parishes.
4. **Bashman Bayou** - St. Bernard - From its origin to Bayou Dupre.
5. **Bayou Bartholomew** - Morehouse - From the Louisiana-Arkansas state line to Dead Bayou.
6. **Bayou Bienvenue** - St. Bernard - From Bayou Villere to Lake Borgne.
7. **Bayou Cane** - St. Tammany - From its head waters to Lake Pontchartrain.
8. **Bayou Chaperon** - St. Bernard - From its origin to its end.
9. **Bayou Chinchuba** - St. Tammany - From the West Causeway approach south to Lake Pontchartrain.
10. **Bayou Cocodrie** - Concordia - From Wild Cow Bayou to Little Cross Bayou.
11. **Bayou Cocodrie** - Rapides, Evangeline - From U.S. Hwy. 167 to the Bayou Boeuf-Cocodrie Diversion Canal.
12. **Bayou D'Arbonne** - Union, Ouachita - From the Lake D'Arbonne dam to its entrance into the Ouachita River.
13. **Bayou D'Loutre (L'Outre)** - Ouachita, Union - From the Louisiana-Arkansas state line to its entrance into the Ouachita River.
14. **Bayou Des Allemands** - Lafourche, St. Charles - From Lac Des Allemands to Lake Salvador.
15. **Bayou Dupre** - St. Bernard - From the Lake Borgne Canal to Terre Beau Bayou.
16. **Bayou Kisatchie** - Natchitoches - From its entrance into Kisatchie National Forest to its entrance into Old River.
17. **Bayou La Branche** - St. Charles - From its source to where it drains into Lake Pontchartrain.
18. **Bayou LaCombe** - St. Tammany - From its head waters to Lake Pontchartrain.
19. **Bayou Liberty** - St. Tammany Parish.
20. **Bayou Trepagnier** - St. Charles - From Norco to where it joins Bayou La Branche.
21. **Beckwith Creek** - from its headwaters to the west fork of the Calcasieu River in Beauregard and Calcasieu parishes.
22. **Big Creek** - Grant - From Hwy. 167 to its entrance into Little River.
23. **Black Lake Bayou** - Red River, Winn, Bienville - From the Webster-Bienville parish line to Black Lake in Natchitoches Parish.

24. **Blind River** - St. James, Ascension, Livingston, St. John - From its origin in St. James Parish to its entrance into Lake Maurepas.
25. **Bogue Chitto River** - Washington, St. Tammany - From the Louisiana-Mississippi state line to its entrance into the Pearl River Navigation Canal.
26. **Bogue Falaya River** - St. Tammany - the river from its headwaters to La. Hwy. 437 in the parish of St. Tammany.
27. **Bradley Slough (Bayou)** - St. Tammany - All of that portion of the slough lying within the boundaries of St. Tammany Parish.
28. **Bundicks Creek** - Vernon, Beauregard, and Allen - From its headwaters to Bundicks Lake and from Bundicks Lake to Whiskey (Ouiska) Chitto Creek.
- 29 a **Calcasieu River** - Vernon, Rapides - From La. Hwy. 8 east through Vernon Parish and all of that portion of said river lying within the boundaries of Rapides Parish.
- 29 b **Calcasieu River** - Allen, Jefferson Davis, and Calcasieu - From the mouth of the Whiskey (Ouiska) Chitto River in Allen Parish, south through Jefferson Davis Parish, and to its intersection with the Ward Eight Park in Calcasieu Parish.
30. **Comite River** - East Feliciana, East Baton Rouge - From the Wilson-Clinton Hwy. in East Feliciana Parish to the entrance of White Bayou in East Baton Rouge Parish.
31. **Corney Bayou** - Claiborne, Union - From the Louisiana-Arkansas state line to Corney Lake and Corney Lake Dam to Lake D'Arbonne.
32. **Dorcheat (Dauchite) Bayou** - Webster - From the Arkansas state line to its entrance into Lake Bistineau.
33. **Drake's Creek** - Vernon - from Lookout Road to its confluence with Whiskey (Ouiska) Chitto Creek located within Vernon Parish.
34. **Fish Creek** - Grant - From its origin near Williana to its entrance into Little River.
35. **Hickory Branch** - Beauregard, Calcasieu - From its headwaters to the west fork of the Calcasieu River.
36. **Holmes Bayou** - St. Tammany - All of that portion of the bayou lying within the boundaries of St. Tammany Parish.
37. **Lake Borgne Canal** - St. Bernard - From the Forty Arpent Canal to Bayou Dupre.
38. **Little River** - Rapides, Grant, Catahoula, LaSalle - From the juncture of Dugdemonia and Castor Creek to its entrance into Catahoula Lake.
39. **Middle Fork of Bayou D'Arbonne** - Claiborne, Union - From its origin near La. Hwy. 2 alternate to Lake D'Arbonne.
40. **Morgan River** - St. Tammany - From its juncture with the Porters River to its reentry into the West Pearl River.
41. **Ouachita River** - Morehouse, Union - From the north bank of Bayou Bartholomew at its intersection with the Ouachita River to the Arkansas state line.

42. **Pearl Creek** - Vernon - From La. Hwy. 111 to its entrance into Sabine River.
43. **Pirogue Bayou** - St. Bernard - From Bayou Dupre to New Canal.
44. **Pushepatapa Creek** - Washington - From where East Fork and West Fork join near state line to where it breaks up prior to its entrance into the Pearl River.
45. **Saline Bayou** - Bienville, Winn, Natchitoches - From its origin near Arcadia to La. Hwy. 156 in Winn Parish.
46. **Saline Bayou** - Catahoula, LaSalle - From Saline Lake to Larto Lake.
47. **Six Mile Creek** - Allen, Vernon - Includes the East and West Forks and beginning at the boundary of Fort Polk Military Reservation (Lookout Road) and extending south through Vernon and Allen Parishes to its entrance into Whiskey (Ouiska) Chitto Creek.
48. **Spring Creek** - Rapides - From Otis to Cocodrie Lake in Rapides Parish.
49. **Tangipahoa River** - Tangipahoa - From the Louisiana-Mississippi state line to its entrance into Lake Pontchartrain.
- 50 a **Tchefuncte River and its tributaries\*** - Washington, Tangipahoa, St. Tammany - From its origin in Tangipahoa Parish to its juncture with the Bogue Falaya River.  
  
\*tributaries include, but are not limited to, Beech, Champagne, Clark, Cowpen, Cypress, Hornsby, Horse, Mary, McClothlin, Mile, Rattlesnake, Savannah, Smith, Soap and Tallow and Timber branches, Flowers Bayou, Pruden, St. Pauls, Simpson and Tantella creeks in St. Tammany Parish; Black, Bull and Reedy branches, Snow and Taylor creeks in Tangipahoa Parish; Catca, Gorman, North Carson and South Carson creeks in Washington Parish; and all other direct tributaries of the Tchefuncte River.
- 50 b **Tchefuncte River (excluding any tributaries)** - St. Tammany - From the Bogue Falaya River to Lake Pontchartrain
51. **Ten Mile Creek** - Rapides, Allen, Vernon - From the boundary of Fort Polk Military Reservation (Lookout Road) through Vernon Parish and all of that portion of said creek lying within the boundaries of Rapides and Allen Parishes.
52. **Terre Beau Bayou** - St. Bernard - From Bayou Dupre to the New Canal.
53. **Tickfaw River** - St. Helena - From the Louisiana-Mississippi state line to La. Hwy. 42.
54. **Trout Creek** - LaSalle - From its origin near Hwy. 8 to its entrance into Little River.
55. **West Pearl River** - Washington, St. Tammany - From the state line to its entrance into Lake Borgne.
56. **Whiskey (Ouiska) Chitto Creek** - Vernon, Beauregard, Allen - From the boundary of Fort Polk Military Reservation (Lookout Road) to its entrance into Calcasieu River.
57. **Wilson Slough (Bayou)** - St. Tammany - All of that portion of the slough lying within the boundaries of St. Tammany Parish.

### **Historic and Scenic Rivers - RS 56:1856**

58. **Bayou Manchac** - From the Amite River to the Mississippi River.

59. **Bayou St. John** within the boundaries of Orleans Parish.

Last updated 12/20/2012

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1-800-256-2749 | (225) 765-2800 | Louisiana Department of Wildlife and Fisheries, P.O. Box  
98000  
2000 Quail Dr. Baton Rouge, Louisiana 70898

**Source URL:** <http://www.wlf.louisiana.gov/louisiana-natural-and-scenic-rivers-descriptions-and-map>

**Links:**

[1] <http://twitter.com/share>

[2] <http://www.wlf.louisiana.gov/print/36170>

## **Appendix No. 7**

Figures (Cultural Resources)



JAY DARDENNE  
LIEUTENANT GOVERNOR

**State of Louisiana**  
OFFICE OF THE LIEUTENANT GOVERNOR  
DEPARTMENT OF CULTURE, RECREATION & TOURISM  
OFFICE OF CULTURAL DEVELOPMENT

CHARLES R. DAVIS  
DEPUTY SECRETARY

PAM BREAU  
ASSISTANT SECRETARY

13 December 2013

Cy Toups, P.E.  
Project Manager  
Kee Environmental Services, LLC  
1463 St. Charles St., Suite 800  
Houma, LA 70360

Re: Draft Report  
La Division of Archaeology Report No. 22-4435  
*Phase I Cultural Resources Survey of the Proposed Lafourche Parish Government Industrial Park  
Road Floodwall Project In Larose, Louisiana*

Dear Mr. Toups:

We acknowledge receipt of your letter dated 12 November 2013 and two copies of the above-referenced report. We have completed our review of this report and have no comments to offer.

We concur that structures HSS-467 and HSS-680 are not eligible for nomination to the National Register of Historic Places, and that no historic properties will be impacted by this project. Our office has no further concerns for this project.

We look forward to receiving two bound copies of the final report along with a pdf of the report. If you have any questions, please contact Chip McGimsey in the Division of Archaeology by email at [cmcgimsev@crt.la.gov](mailto:cmcgimsev@crt.la.gov) or by phone at 225-219-4598.

Sincerely,

Pam Breau  
State Historic Preservation Officer

PB:crm



**Angelette-Picciola**  
Consulting Engineers & Surveyors

Neil B. Angelette, P.E., P.L.S.

Larry J. Picciola, P.E., P.L.S.

December 5, 2012

Ms. Nicole Hobson-Morris  
Office of Historic Preservation  
Capitol Annex Building  
Post Office Box 44247  
Baton Rouge, Louisiana 70804

Re: Lafourche Parish Government  
Industrial Park Floodwall  
Larose, Lafourche Parish, Louisiana

No known historic properties will be affected by this undertaking. This effect determination could change should new information come to our attention.

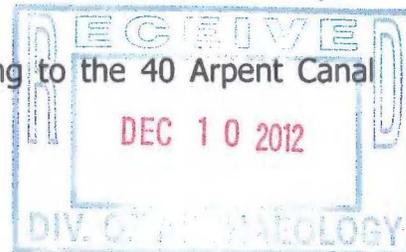
*Pam Breaux*      *1-9-13*  
Pam Breaux      Date  
State Historic Preservation Officer

Dear Ms. Hobson-Morris:

Please let this letter serve as a request for "no objection" on the part of your agency for the above referenced project. The Louisiana Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) is requiring us to acquire this letter of "no objection" from your agency, in order to complete an on-going FEMA grant application.

The scope of this project entails the following: (Please see enclosed maps/documents for further details.)

1. Construction of sheetpile floodwall along Industrial Park Rd. (see "Overall Site Plan" map)
2. Increase capacity of existing "T-Bois" Pump Station. (Hamilton St., see "Map of Study Area")
3. Adding one culvert across LA Hwy. 308. (in vicinity of Edward St., see "Map of Study Area")
4. Increasing several main outfall ditch capacities flowing to the 40 Arpent Canal and "T-Bois" Pump Station.





September 17, 2013

Assistant Chief Gary Batton  
Choctaw Nation of Oklahoma  
P.O. Box 1210  
Durant, OK 74702-1210

**RE: Lafourche Parish Govt. – Industrial Park Rd. Floodwall & North Intracoastal  
Drainage Improvements  
Larose, LA  
Lafourche Parish, Louisiana**

Dear Mr. Batton:

KEE Environmental Services, LLC is requesting a review and comment from your tribe regarding the above referenced project as it relates to potential impacts to Native American religious sites. This information will be utilized for a FEMA NEPA Environmental Assessment being conducted for the project. The project will consist of construction of a floodwall structure and pump station as well as improvements to existing drainage ditches located with the area depicted on the attached drawing.

Should you have any questions and/or comments concerning this matter, please contact me at 985-413-2116 or by email at [ctoups@keeenv.com](mailto:ctoups@keeenv.com). Response letters may be returned to my attention via email or mailed to the address at the bottom of this page.

Sincerely,

**KEE Environmental, LLC**

A handwritten signature in black ink, appearing to read "Cy J. Toups".

Cy J. Toups, P.E.  
Project Manager



September 17, 2013

Mr. John Paul Darden  
Chitimacha Tribe of Louisiana  
P.O. Box 661  
Charenton, LA 70523

**RE: Lafourche Parish Govt. – Industrial Park Rd. Floodwall & North Intracoastal  
Drainage Improvements  
Larose, LA  
Lafourche Parish, Louisiana**

Dear Mr. Darden:

KEE Environmental Services, LLC is requesting a review and comment from your tribe regarding the above referenced project as it relates to potential impacts to Native American religious sites. This information will be utilized for a FEMA NEPA Environmental Assessment being conducted for the project. The project will consist of construction of a floodwall structure and pump station as well as improvements to existing drainage ditches located with the area depicted on the attached drawing.

Should you have any questions and/or comments concerning this matter, please contact me at 985-413-2116 or by email at [ctoups@keeenv.com](mailto:ctoups@keeenv.com). Response letters may be returned to my attention via email or mailed to the address at the bottom of this page.

Sincerely,

**KEE Environmental, LLC**

A handwritten signature in black ink, appearing to read "Cy J. Toups".

Cy J. Toups, P.E.  
Project Manager



September 17, 2013

Mr. Earl Barbry, Sr.  
Tunica-Biloxi Tribe of Louisiana  
P.O. Box 1589  
Marksville, LA 71351

**RE: Lafourche Parish Govt. – Industrial Park Rd. Floodwall & North Intracoastal  
Drainage Improvements  
Larose, LA  
Lafourche Parish, Louisiana**

Dear Mr. Barbry:

KEE Environmental Services, LLC is requesting a review and comment from your tribe regarding the above referenced project as it relates to potential impacts to Native American religious sites. This information will be utilized for a FEMA NEPA Environmental Assessment being conducted for the project. The project will consist of construction of a floodwall structure and pump station as well as improvements to existing drainage ditches located with the area depicted on the attached drawing.

Should you have any questions and/or comments concerning this matter, please contact me at 985-413-2116 or by email at [ctoups@keeenv.com](mailto:ctoups@keeenv.com). Response letters may be returned to my attention via email or mailed to the address at the bottom of this page.

Sincerely,

**KEE Environmental, LLC**

A handwritten signature in black ink, appearing to read 'Cy J. Toups', is written over a light blue circular stamp.

Cy J. Toups, P.E.  
Project Manager

# Louisiana

## National Register of Historic Places

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<b>Historic Name</b> <i>click to see more information</i>	<b>Other Names</b>	<b>City</b>	<b>Parish</b>	<b>Date Placed on Register</b>
<a href="#">816 Jackson Street</a>		Thibodaux	Lafourche	7/22/2009
<a href="#">Acadia Plantation DESTROYED 2010</a>	16LF92	Thibodaux	Lafourche	5/29/1987
<a href="#">Bank of Lockport</a>	Gouaux Building	Lockport	Lafourche	3/30/1995
<a href="#">Bayou Boeuf Elementary School</a>	Little Red School House	Thibodaux vicinity	Lafourche	2/25/2004
<a href="#">Bouverans Plantation House</a>	Arialo	Lockport	Lafourche	7/21/1983
<a href="#">Chatchie Plantation House</a>	Homewood	Thibodaux	Lafourche	10/25/1982
<a href="#">Dansereau House</a>	Caldwell Home	Thibodaux	Lafourche	11/21/1978
<a href="#">Edward Douglass White House</a>	Edward Douglass White Louisiana State Commemorative Area	Thibodaux	Lafourche	12/8/1976
<a href="#">Frost House</a>		Thibodaux	Lafourche	8/6/2008
<a href="#">Golden Meadow High School</a>	Golden Meadow Junior High School	Golden Meadow	Lafourche	11/23/1998
<a href="#">Jean Baptiste Thibodaux House</a>	Rosella Plantation House	Raceland	Lafourche	11/2/1982
<a href="#">Lafourche Parish Courthouse</a>		Thibodaux	Lafourche	8/21/1979
<a href="#">Laurel Valley Plantation</a>	Laurel Valley Village	Thibodaux	Lafourche	3/24/1978

<a href="#">Ledet House</a>		Raceland	Lafourche	5/23/1997
<a href="#">Lefort House</a>	Omega House	Thibodaux	Lafourche	9/4/2008
<a href="#">Merchants and Planters Bank</a>	Old LP&L District Office Building	Lockport	Lafourche	3/30/1995
<a href="#">Nicholls Jr Col Main Building</a>	Francis T. Nicholls Junior College Main Building, Charles C. Elkins Hall	Thibodaux	Lafourche	2/12/1999
<a href="#">Rienzi Plantation House</a>		Thibodaux	Lafourche	5/31/1980
<a href="#">St. John`s Episcopal Church and Cemetery</a>		Thibodaux	Lafourche	9/13/1977
<a href="#">Thibodaux Multiple Resource Area</a>	Historic Resources of Thibodaux Properties included: Bank of Lafourche Building; Breaux House; KTIB Radio Building, Citizens Bank of Lafourche; Grand Theatre (Demolished) , Lamartina Building; McCulla House (Raceland Bank & Trust); McCulla House (Chanticleer Gifts); Percy-Lobdell Building; Riviere Building; Riviere House; Robichaux House; St. Joseph`s Co-Cathedral & Rectory; Peltier House	Thibodaux	Lafourche	3/5/1986
<a href="#">Vives House</a>		Thibodaux	Lafourche	7/15/2009
<a href="#">Zephirin Toups, Sr. House</a>		Thibodaux	Lafourche	8/12/1993



## LOUISIANA - Lafourche County

### **R** Acadia Plantation (added 1987 - - #87000849) Address Restricted , Thibodaux

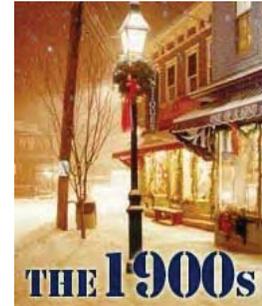
Historic Significance: Information Potential, Architecture/Engineering  
 Architect, builder, or engineer: Unknown  
 Architectural Style: Queen Anne, Stick/Eastlake  
 Area of Significance: Historic - Non-Aboriginal, Architecture  
 Cultural Affiliation: Rural, American  
 Period of Significance: 1900-1924, 1875-1899  
 Owner: **Private**  
 Historic Function: Domestic  
 Historic Sub-function: Secondary Structure, Single Dwelling  
 Current Function: Agriculture/Subsistence, Domestic  
 Current Sub-function: Agricultural Outbuildings, Secondary Structure, Single Dwelling



Metallic Arts Inc  
Cast Historical Plaques  
Bronze, Aluminum or Brass

### **R** Bank of Lafourche Building (added 1986 - - #86000425) Also known as **Oil and Gas Building** 206 Green St. , Thibodaux

Historic Significance: Architecture/Engineering  
 Architect, builder, or engineer: Unknown  
 Architectural Style: Italianate  
 Area of Significance: Architecture  
 Period of Significance: 1875-1899  
 Owner: **Private**  
 Historic Function: Commerce/Trade  
 Historic Sub-function: Financial Institution  
 Current Function: Commerce/Trade



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### **R** Bank of Lockport (added 1995 - - #95000299) Also known as **Gouaux Building** 111 Barataria St. , Lockport

Historic Significance: Architecture/Engineering  
 Architect, builder, or engineer: Unknown  
 Architectural Style: Romanesque  
 Area of Significance: Architecture  
 Period of Significance: 1900-1924  
 Owner: **Private**  
 Historic Function: Commerce/Trade, Government  
 Historic Sub-function: Business, Financial Institution, Post Office  
 Current Function: Commerce/Trade  
 Current Sub-function: Professional



**Dear Cabbie,**  
**Will I be rich?**  
**Will I be happy?**

### **R** Bayou Boeuf Elementary School (added 2004 - - #04000082) Also known as **Little Red Schoolhouse** 4138 LA 307 , Thibodaux

Historic Significance: Event  
 Area of Significance: Education  
 Period of Significance: 1950-1974, 1925-1949, 1900-1924  
 Owner: **Local**  
 Historic Function: Education  
 Historic Sub-function: School  
 Current Function: Education  
 Current Sub-function: School

**Bouverans Plantation House** (added 1983 - - #83000527)  
LA 1 , Lockport

Historic Significance: Architecture/Engineering  
 Architectural Style: Other, Greek Revival  
 Area of Significance: Architecture  
 Period of Significance: 1850-1874  
 Owner: **Private**  
 Historic Function: Domestic  
 Historic Sub-function: Single Dwelling  
 Current Function: Domestic, Work In Progress  
 Current Sub-function: Single Dwelling

**Breaux House** (added 1986 - - #86000426)  
401 Patriot , Thibodaux

Historic Significance: Architecture/Engineering  
 Architect, builder, or engineer: Breaux,Lewis  
 Architectural Style: Queen Anne  
 Area of Significance: Architecture  
 Period of Significance: 1875-1899  
 Owner: **Private**  
 Historic Function: Domestic  
 Historic Sub-function: Secondary Structure, Single Dwelling  
 Current Function: Domestic  
 Current Sub-function: Secondary Structure, Single Dwelling

**Building at 108 Green Street** (added 1986 - - #86000424)  
Also known as **KTIB Radio Building**  
108 Green St. , Thibodaux

Historic Significance: Event, Architecture/Engineering  
 Architect, builder, or engineer: Unknown  
 Architectural Style: Other  
 Area of Significance: Commerce, Architecture  
 Period of Significance: 1900-1924  
 Owner: **Private**  
 Historic Function: Commerce/Trade  
 Current Function: Commerce/Trade

**Chanticleer Gift Shop** (added 1986 - - #86000877)  
103 W. Third , Thibodaux

Historic Significance: Architecture/Engineering  
 Architect, builder, or engineer: Unknown  
 Architectural Style: Queen Anne  
 Area of Significance: Architecture  
 Period of Significance: 1900-1924  
 Owner: **Private**  
 Historic Function: Domestic  
 Historic Sub-function: Single Dwelling  
 Current Function: Commerce/Trade  
 Current Sub-function: Specialty Store

**Chatchie Plantation House** (added 1982 - - #82000442)  
Also known as **Homewood**  
E of Thibodaux on LA 308 , Thibodaux

Historic Significance: Architecture/Engineering  
 Architect, builder, or engineer: Gaude,Justin F.  
 Architectural Style: No Style Listed  
 Area of Significance: Architecture  
 Period of Significance: 1850-1874  
 Owner: **Private**  
 Historic Function: Domestic  
 Historic Sub-function: Single Dwelling  
 Current Function: Domestic  
 Current Sub-function: Single Dwelling

**Citizens Bank of Lafourche** (added 1986 - - #86000427)  
Also known as **Citizens Finance Corporation Building**  
413 W. Fourth St. , Thibodaux

Historic Significance: Architecture/Engineering  
 Architect, builder, or engineer: Robichaux,Joseph A.  
 Architectural Style: Beaux Arts  
 Area of Significance: Architecture  
 Period of Significance: 1900-1924  
 Owner: **Private**

Historic Function: Commerce/Trade  
 Historic Sub-function: Financial Institution  
 Current Function: Commerce/Trade  
 Current Sub-function: Financial Institution



**Dansereau House** (added 1978 - - #78001425)

Also known as **The Caldwell Home**  
 506 St. Philip St. , Thibodaux

Historic Significance: Architecture/Engineering  
 Architect, builder, or engineer: Thiberge, Henri  
 Architectural Style: Italianate, Second Empire  
 Area of Significance: Architecture  
 Period of Significance: 1875-1899, 1850-1874, 1825-1849  
 Owner: **Private**  
 Historic Function: Domestic  
 Historic Sub-function: Single Dwelling  
 Current Function: Domestic  
 Current Sub-function: Single Dwelling



**Frost House** (added 2008 - - #08000766)

612 St. Philip St. , Thibodaux

Historic Significance: Architecture/Engineering  
 Architectural Style: Colonial Revival  
 Area of Significance: Architecture  
 Period of Significance: 1900-1924  
 Owner: **Private**  
 Historic Function: Domestic  
 Historic Sub-function: Single Dwelling  
 Current Function: Domestic  
 Current Sub-function: Single Dwelling

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**Golden Meadow High School** (added 1998 - - #98001426)

Also known as **Golden Meadow Junior High School**  
 630 S. Bayou Dr. , Golden Meadow

Historic Significance: Event  
 Area of Significance: Education  
 Period of Significance: 1925-1949  
 Owner: **Local**  
 Historic Function: Education  
 Historic Sub-function: School  
 Current Function: Education  
 Current Sub-function: School



**Grand Theatre** (added 1986 - - #86000428)

401 Green St. , Thibodaux

Historic Significance: Architecture/Engineering  
 Architect, builder, or engineer: Unknown  
 Architectural Style: Classical Revival  
 Area of Significance: Architecture  
 Period of Significance: 1925-1949  
 Owner: **Private**  
 Historic Function: Recreation And Culture  
 Historic Sub-function: Theater  
 Current Function: Vacant/Not In Use



**House at 816 Jackson Street** (added 2009 - - #09000547)

816 Jackson St. , Thibodaux

Historic Significance: Architecture/Engineering  
 Architectural Style: Queen Anne, Stick/Eastlake  
 Area of Significance: Architecture  
 Period of Significance: 1875-1899  
 Owner: **Private**  
 Historic Function: Domestic  
 Historic Sub-function: Single Dwelling  
 Current Function: Domestic  
 Current Sub-function: Single Dwelling

**House at 914 Jackson Street** (added 1986 - - #86003791)  
914 Jackson St. , Thibodaux

Historic Significance: Architecture/Engineering  
 Architect, builder, or engineer: Unknown  
 Architectural Style: Greek Revival  
 Area of Significance: Architecture  
 Period of Significance: 1850-1874  
 Owner: **Private**  
 Historic Function: Domestic  
 Historic Sub-function: Single Dwelling  
 Current Function: Domestic  
 Current Sub-function: Single Dwelling

**Lafourche Parish Courthouse** (added 1979 - - #79001068)  
200 Green St , Thibodaux

Historic Significance: Event, Architecture/Engineering  
 Architect, builder, or engineer: Favrot & Livaudais  
 Architectural Style: Beaux Arts  
 Area of Significance: Politics/Government, Architecture  
 Period of Significance: 1900-1924, 1850-1874  
 Owner: **Local**  
 Historic Function: Government  
 Historic Sub-function: Courthouse  
 Current Function: Government  
 Current Sub-function: Courthouse

**Lamartina Building** (added 1986 - - #86000429)  
700--704 W. Third , Thibodaux

Historic Significance: Architecture/Engineering  
 Architect, builder, or engineer: Unknown  
 Architectural Style: Other  
 Area of Significance: Architecture  
 Period of Significance: 1900-1924, 1850-1874  
 Owner: **Private**  
 Historic Function: Commerce/Trade, Domestic  
 Historic Sub-function: Multiple Dwelling, Specialty Store  
 Current Function: Commerce/Trade

**Laurel Valley Sugar Plantation** (added 1978 - - #78001426)

Also known as **Laurel Valley Village**  
 NE of Thibodaux off LA 308 , Thibodaux

Historic Significance: Event, Architecture/Engineering  
 Architect, builder, or engineer: Unknown  
 Architectural Style: Queen Anne, Renaissance  
 Area of Significance: Agriculture, Architecture, Landscape Architecture, Industry, Social History  
 Period of Significance: 1900-1924, 1875-1899, 1850-1874  
 Owner: **Private**  
 Historic Function: Agriculture/Subsistence, Domestic, Industry/Processing/Extraction  
 Historic Sub-function: Agricultural Outbuildings, Manufacturing Facility, Processing, Single Dwelling, Storage  
 Current Function: Agriculture/Subsistence, Domestic  
 Current Sub-function: Single Dwelling

**Ledet House** (added 1997 - - #97000468)  
LA 308, E of Bayou Lafourche , Racland

Historic Significance: Architecture/Engineering  
 Architect, builder, or engineer: unknown  
 Architectural Style: Gothic Revival  
 Area of Significance: Architecture  
 Period of Significance: 1850-1874  
 Owner: **Private**  
 Historic Function: Domestic  
 Historic Sub-function: Single Dwelling  
 Current Function: Domestic  
 Current Sub-function: Single Dwelling

**Lefort House** (added 2008 - - #08000843)  
Also known as **Omega House**  
1302 Hwy. 1 , Thibodaux

Historic Significance: Architecture/Engineering  
 Architectural Style: Greek Revival  
 Area of Significance: Architecture  
 Period of Significance: 1850-1874  
 Owner: **Private**

Historic Function: Domestic  
 Historic Sub-function: Single Dwelling  
 Current Function: Domestic  
 Current Sub-function: Single Dwelling

R

**McCulla House** (added 1986 - - #86000430)  
 Also known as **Raceland Bank and Trust, Thibodaux Branch**  
 422 E. First , Thibodaux

Historic Significance: Architecture/Engineering  
 Architect, builder, or engineer: Robichaux, Joseph A.  
 Architectural Style: Queen Anne  
 Area of Significance: Architecture  
 Period of Significance: 1900-1924  
 Owner: **Private**  
 Historic Function: Domestic  
 Historic Sub-function: Single Dwelling  
 Current Function: Commerce/Trade  
 Current Sub-function: Financial Institution

R

**Merchants and Planters Bank** (added 1995 - - #95000297)  
 Also known as **Old LP & L District Office Building**  
 110 Main St. , Lockport

Historic Significance: Architecture/Engineering  
 Architect, builder, or engineer: Unknown  
 Architectural Style: Classical Revival  
 Area of Significance: Architecture  
 Period of Significance: 1900-1924  
 Owner: **Private**  
 Historic Function: Commerce/Trade  
 Historic Sub-function: Financial Institution  
 Current Function: Vacant/Not In Use

R

**Nicholls, Francis T., Junior College Main Building** (added 1999 - - #99000184)  
 Also known as **Charles C. Elkins Hall**  
 906 LA 1 E , Thibodaux

Historic Significance: Event  
 Area of Significance: Education  
 Period of Significance: 1925-1949  
 Owner: **State**  
 Historic Function: Education  
 Historic Sub-function: College  
 Current Function: Education  
 Current Sub-function: College

R

**Peltier House** (added 1986 - - #86000878)  
 403 Canal Blvd. , Thibodaux

Historic Significance: Architecture/Engineering  
 Architect, builder, or engineer: Robichaux, Joseph A.  
 Architectural Style: Colonial Revival  
 Area of Significance: Architecture  
 Period of Significance: 1900-1924  
 Owner: **Private**  
 Historic Function: Domestic  
 Historic Sub-function: Secondary Structure, Single Dwelling  
 Current Function: Domestic  
 Current Sub-function: Secondary Structure, Single Dwelling

R

**Percy--Lobdell Building** (added 1986 - - #86000431)  
 314 Saint Mary St. , Thibodaux

Historic Significance: Event, Architecture/Engineering  
 Architect, builder, or engineer: Unknown  
 Architectural Style: Italianate  
 Area of Significance: Architecture, Commerce  
 Period of Significance: 1900-1924  
 Owner: **Private**  
 Historic Function: Commerce/Trade  
 Historic Sub-function: Business, Warehouse  
 Current Function: Commerce/Trade  
 Current Sub-function: Business, Warehouse

R

**Rienzi Plantation House** (added 1980 - - #80001736)  
 LA 308 , Thibodaux

Historic Significance: Architecture/Engineering

Architect, builder, or engineer: Unknown  
 Architectural Style: Greek Revival  
 Area of Significance: Architecture  
 Period of Significance: 1825-1849  
 Owner: **Private**  
 Historic Function: Domestic  
 Historic Sub-function: Single Dwelling  
 Current Function: Domestic  
 Current Sub-function: Single Dwelling

**R** **Riviere Building** (added 1986 - - #86000432)  
 405 W. Third , Thibodaux

Historic Significance: Architecture/Engineering  
 Architect, builder, or engineer: Riviere,Thomas  
 Architectural Style: Italianate  
 Area of Significance: Architecture  
 Period of Significance: 1900-1924  
 Owner: **Private**  
 Historic Function: Commerce/Trade  
 Current Function: Unknown

**R** **Riviere House** (added 1986 - - #86000433)  
 208 Canal Blvd. , Thibodaux

Historic Significance: Architecture/Engineering  
 Architect, builder, or engineer: Riviere,Henry  
 Architectural Style: Queen Anne  
 Area of Significance: Architecture  
 Period of Significance: 1900-1924  
 Owner: **Private**  
 Historic Function: Domestic  
 Historic Sub-function: Secondary Structure, Single Dwelling  
 Current Function: Domestic  
 Current Sub-function: Secondary Structure, Single Dwelling

**R** **Robichaux House** (added 1986 - - #86000434)  
 322 E. Second St. , Thibodaux

Historic Significance: Architecture/Engineering  
 Architect, builder, or engineer: Robichaux,E.G.  
 Architectural Style: Queen Anne  
 Area of Significance: Architecture  
 Period of Significance: 1875-1899  
 Owner: **Private**  
 Historic Function: Domestic  
 Historic Sub-function: Secondary Structure, Single Dwelling  
 Current Function: Domestic  
 Current Sub-function: Secondary Structure, Single Dwelling

**R** **Saint Joseph's Co-Cathedral and Rectory** (added 1986 - - #86000435)  
 721 Canal Blvd. , Thibodaux

Historic Significance: Architecture/Engineering  
 Architect, builder, or engineer: Robichaux,Joseph A., Burton & Bendernagel  
 Architectural Style: No Style Listed  
 Area of Significance: Architecture  
 Period of Significance: 1900-1924  
 Owner: **Private**  
 Historic Function: Religion  
 Historic Sub-function: Church Related Residence, Religious Structure  
 Current Function: Religion  
 Current Sub-function: Church Related Residence, Religious Structure

**R** **St. John's Episcopal Church and Cemetery** (added 1977 - - #77000672)  
 702 Jackson St. , Thibodaux

Historic Significance: Event, Architecture/Engineering  
 Architect, builder, or engineer: Unknown  
 Architectural Style: Greek Revival  
 Area of Significance: Architecture, Religion  
 Period of Significance: 1825-1849  
 Owner: **Private**  
 Historic Function: Funerary, Religion  
 Historic Sub-function: Cemetery, Religious Structure  
 Current Function: Funerary, Religion  
 Current Sub-function: Cemetery, Religious Structure

**R** **Thibodaux, Jean Baptiste, House** (added 1982 - - #82000443)  
Also known as **Rosella Planation House**  
W of Raceland on LA 308 , Raceland

Historic Significance: Architecture/Engineering  
Architectural Style: Other  
Area of Significance: Architecture  
Period of Significance: 1800-1824  
Owner: **Private**  
Historic Function: Domestic  
Historic Sub-function: Single Dwelling  
Current Function: Domestic  
Current Sub-function: Single Dwelling

**R** **Toups, Zephirin, Sr., House** (added 1993 - - #93000820)  
1045 Bayou Blue By-Pass Rd. , Thibodaux

Historic Significance: Architecture/Engineering  
Architect, builder, or engineer: Unknown  
Architectural Style: Other, Greek Revival  
Area of Significance: Architecture  
Period of Significance: 1850-1874  
Owner: **Private**  
Historic Function: Domestic  
Historic Sub-function: Single Dwelling  
Current Function: Domestic  
Current Sub-function: Single Dwelling

**R** **Vives House** (added 2009 - - #09000517)  
923 Jackson St. , Thibodaux

Historic Significance: Architecture/Engineering  
Architectural Style: Queen Anne, Stick/Eastlake  
Area of Significance: Architecture  
Period of Significance: 1875-1899  
Owner: **Private**  
Historic Function: Domestic  
Historic Sub-function: Single Dwelling  
Current Function: Domestic  
Current Sub-function: Single Dwelling

**R** **White, Edward Douglass, House** (added 1976 - - #76000964)  
Also known as **Edward Douglass White Louisiana State Commemorative Area**  
5 mi. N of Thibodaux on LA 1 , Thibodaux

Historic Significance: Person  
Historic Person: White, Edward Douglass  
Significant Year: 1921, 1790, 1845  
Area of Significance: Politics/Government, Law  
Period of Significance: 1900-1924, 1875-1899, 1850-1874, 1825-1849  
Owner: **State**  
Historic Function: Domestic  
Historic Sub-function: Single Dwelling  
Current Function: Recreation And Culture  
Current Sub-function: Museum

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## **Appendix No. 8**

Figures (Socioeconomic Resources)

U.S. Department of Commerce

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State &amp; County QuickFacts

**Larose CDP, Louisiana**

People QuickFacts	Larose CDP	Louisiana
Population, 2012 estimate	X	4,601,893
Population, 2010 (April 1) estimates base	X	4,533,372
Population, percent change, April 1, 2010 to July 1, 2012	X	1.5%
Population, 2010	7,400	4,533,372
Persons under 5 years, percent, 2010	6.5%	6.9%
Persons under 18 years, percent, 2010	24.5%	24.7%
Persons 65 years and over, percent, 2010	14.1%	12.3%
Female persons, percent, 2010	50.1%	51.0%
-----		
White alone, percent, 2010 (a)	82.8%	62.6%
Black or African American alone, percent, 2010 (a)	5.0%	32.0%
American Indian and Alaska Native alone, percent, 2010 (a)	3.8%	0.7%
Asian alone, percent, 2010 (a)	2.1%	1.5%
Native Hawaiian and Other Pacific Islander alone, percent, 2010 (a)	Z	0.0%
Two or More Races, percent, 2010	1.9%	1.6%
Hispanic or Latino, percent, 2010 (b)	7.7%	4.2%
White alone, not Hispanic or Latino, percent, 2010	79.9%	60.3%
-----		
Living in same house 1 year & over, percent, 2007-2011	91.2%	85.1%
Foreign born persons, percent, 2007-2011	4.1%	3.7%
Language other than English spoken at home, percent age 5+, 2007-2011	33.1%	8.8%
High school graduate or higher, percent of persons age 25+, 2007-2011	71.4%	81.6%
Bachelor's degree or higher, percent of persons age 25+, 2007-2011	13.0%	21.1%
Veterans, 2007-2011	249	314,677
Mean travel time to work (minutes), workers age 16+, 2007-2011	26.4	24.9
-----		
Housing units, 2010	2,834	1,964,981
Homeownership rate, 2007-2011	82.0%	67.9%
Housing units in multi-unit structures, percent, 2007-2011	1.0%	18.1%
Median value of owner-occupied housing units, 2007-2011	\$127,700	\$135,400
Households, 2007-2011	2,533	1,675,097
Persons per household, 2007-2011	2.65	2.60
Per capita money income in the past 12 months (2011 dollars), 2007-2011	\$23,237	\$23,853
Median household income, 2007-2011	\$46,549	\$44,086
Persons below poverty level, percent, 2007-2011	13.2%	18.4%
-----		
Business QuickFacts	Larose CDP	Louisiana
Total number of firms, 2007	602	375,808
Black-owned firms, percent, 2007	F	15.9%
American Indian- and Alaska Native-owned firms, percent, 2007	F	0.7%
Asian-owned firms, percent, 2007	S	2.8%
Native Hawaiian and Other Pacific Islander-owned firms, percent, 2007	F	0.0%
Hispanic-owned firms, percent, 2007	F	2.9%
Women-owned firms, percent, 2007	11.8%	27.4%
-----		
Manufacturers shipments, 2007 (\$1000)	NA	205,054,723
Merchant wholesaler sales, 2007 (\$1000)	5,263	51,415,553
Retail sales, 2007 (\$1000)	39,987	56,543,203
Retail sales per capita, 2007	NA	\$12,921

Accommodation and food services sales, 2007 (\$1000)		9,799	9,729,869
Geography QuickFacts	Larose CDP	Louisiana	
Land area in square miles, 2010	10.87	43,203.90	
Persons per square mile, 2010	681.1	104.9	
FIPS Code	42135	22	
Counties			

(a) Includes persons reporting only one race.

(b) Hispanics may be of any race, so also are included in applicable race categories.

D: Suppressed to avoid disclosure of confidential information

F: Fewer than 25 firms

FN: Footnote on this item for this area in place of data

NA: Not available

S: Suppressed; does not meet publication standards

X: Not applicable

Z: Value greater than zero but less than half unit of measure shown

Source U.S. Census Bureau: State and County QuickFacts. Data derived from Population Estimates, American Community Survey, Census of Population and Housing, County Business Patterns, Economic Census, Survey of Business Owners, Building Permits, Census of Governments

Last Revised: Thursday, 27-Jun-2013 14:03:30 EDT



DP02

SELECTED SOCIAL CHARACTERISTICS IN THE UNITED STATES

2007-2011 American Community Survey 5-Year Estimates

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Data and Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities and towns and estimates of housing units for states and counties.

Subject	Lafourche Parish, Louisiana			
	Estimate	Margin of Error	Percent	Percent Margin of Error
<b>HOUSEHOLDS BY TYPE</b>				
Total households	34,474	+/-521	34,474	(X)
Family households (families)	24,894	+/-623	72.2%	+/-1.6
With own children under 18 years	11,364	+/-504	33.0%	+/-1.3
Married-couple family	18,993	+/-658	55.1%	+/-1.9
With own children under 18 years	7,863	+/-510	22.8%	+/-1.4
Male householder, no wife present, family	1,179	+/-235	3.4%	+/-0.7
With own children under 18 years	766	+/-190	2.2%	+/-0.5
Female householder, no husband present, family	4,722	+/-385	13.7%	+/-1.1
With own children under 18 years	2,735	+/-355	7.9%	+/-1.0
Nonfamily households	9,580	+/-603	27.8%	+/-1.6
Householder living alone	7,821	+/-548	22.7%	+/-1.5
65 years and over	2,918	+/-322	8.5%	+/-0.9
Households with one or more people under 18 years	13,109	+/-542	38.0%	+/-1.4
Households with one or more people 65 years and over	8,130	+/-244	23.6%	+/-0.6
Average household size	2.73	+/-0.04	(X)	(X)
Average family size	3.21	+/-0.07	(X)	(X)
<b>RELATIONSHIP</b>				
Population in households	94,006	+/-414	94,006	(X)
Householder	34,474	+/-521	36.7%	+/-0.5
Spouse	18,879	+/-666	20.1%	+/-0.7
Child	29,521	+/-947	31.4%	+/-1.0
Other relatives	6,514	+/-689	6.9%	+/-0.7
Nonrelatives	4,618	+/-717	4.9%	+/-0.8
Unmarried partner	2,213	+/-355	2.4%	+/-0.4
<b>MARITAL STATUS</b>				
Males 15 years and over	37,122	+/-102	37,122	(X)
Never married	11,818	+/-541	31.8%	+/-1.4
Now married, except separated	20,270	+/-679	54.6%	+/-1.8
Separated	529	+/-165	1.4%	+/-0.4
Widowed	910	+/-169	2.5%	+/-0.5

Subject	Lafourche Parish, Louisiana			
	Estimate	Margin of Error	Percent	Percent Margin of Error
Divorced	3,595	+/-433	9.7%	+/-1.2
Females 15 years and over	39,287	+/-131	39,287	(X)
Never married	10,273	+/-570	26.1%	+/-1.4
Now married, except separated	19,729	+/-776	50.2%	+/-2.0
Separated	1,159	+/-233	3.0%	+/-0.6
Widowed	3,958	+/-363	10.1%	+/-0.9
Divorced	4,168	+/-496	10.6%	+/-1.3
<b>FERTILITY</b>				
Number of women 15 to 50 years old who had a birth in the past 12 months	1,394	+/-267	1,394	(X)
Unmarried women (widowed, divorced, and never married)	578	+/-193	41.5%	+/-11.0
Per 1,000 unmarried women	48	+/-16	(X)	(X)
Per 1,000 women 15 to 50 years old	57	+/-11	(X)	(X)
Per 1,000 women 15 to 19 years old	10	+/-10	(X)	(X)
Per 1,000 women 20 to 34 years old	120	+/-26	(X)	(X)
Per 1,000 women 35 to 50 years old	17	+/-8	(X)	(X)
<b>GRANDPARENTS</b>				
Number of grandparents living with own grandchildren under 18 years	2,875	+/-463	2,875	(X)
Responsible for grandchildren	1,393	+/-330	48.5%	+/-7.1
Years responsible for grandchildren				
Less than 1 year	284	+/-143	9.9%	+/-4.9
1 or 2 years	207	+/-141	7.2%	+/-4.9
3 or 4 years	289	+/-173	10.1%	+/-5.6
5 or more years	613	+/-229	21.3%	+/-6.4
Number of grandparents responsible for own grandchildren under 18 years	1,393	+/-330	1,393	(X)
Who are female	880	+/-209	63.2%	+/-6.5
Who are married	985	+/-286	70.7%	+/-10.0
<b>SCHOOL ENROLLMENT</b>				
Population 3 years and over enrolled in school	23,800	+/-684	23,800	(X)
Nursery school, preschool	1,831	+/-272	7.7%	+/-1.0
Kindergarten	1,284	+/-276	5.4%	+/-1.2
Elementary school (grades 1-8)	10,168	+/-335	42.7%	+/-1.8
High school (grades 9-12)	5,448	+/-293	22.9%	+/-1.3
College or graduate school	5,069	+/-554	21.3%	+/-1.9
<b>EDUCATIONAL ATTAINMENT</b>				
Population 25 years and over	62,089	+/-183	62,089	(X)
Less than 9th grade	8,301	+/-559	13.4%	+/-0.9
9th to 12th grade, no diploma	8,294	+/-620	13.4%	+/-1.0
High school graduate (includes equivalency)	24,574	+/-938	39.6%	+/-1.5
Some college, no degree	9,417	+/-598	15.2%	+/-1.0
Associate's degree	2,299	+/-339	3.7%	+/-0.5
Bachelor's degree	6,116	+/-596	9.9%	+/-1.0
Graduate or professional degree	3,088	+/-380	5.0%	+/-0.6
Percent high school graduate or higher	(X)	(X)	73.3%	+/-1.3
Percent bachelor's degree or higher	(X)	(X)	14.8%	+/-1.1
<b>VETERAN STATUS</b>				
Civilian population 18 years and over	72,049	+/-129	72,049	(X)
Civilian veterans	4,797	+/-337	6.7%	+/-0.5

Subject	Lafourche Parish, Louisiana			
	Estimate	Margin of Error	Percent	Percent Margin of Error
<b>DISABILITY STATUS OF THE CIVILIAN NONINSTITUTIONALIZED POPULATION</b>				
Total Civilian Noninstitutionalized Population	(X)	(X)	(X)	(X)
With a disability	(X)	(X)	(X)	(X)
Under 18 years	(X)	(X)	(X)	(X)
With a disability	(X)	(X)	(X)	(X)
18 to 64 years	(X)	(X)	(X)	(X)
With a disability	(X)	(X)	(X)	(X)
65 years and over	(X)	(X)	(X)	(X)
With a disability	(X)	(X)	(X)	(X)
<b>RESIDENCE 1 YEAR AGO</b>				
Population 1 year and over	94,692	+/-246	94,692	(X)
Same house	85,249	+/-938	90.0%	+/-1.0
Different house in the U.S.	8,994	+/-874	9.5%	+/-0.9
Same county	5,541	+/-753	5.9%	+/-0.8
Different county	3,453	+/-541	3.6%	+/-0.6
Same state	2,877	+/-544	3.0%	+/-0.6
Different state	576	+/-205	0.6%	+/-0.2
Abroad	449	+/-368	0.5%	+/-0.4
<b>PLACE OF BIRTH</b>				
Total population	95,895	*****	95,895	(X)
Native	93,519	+/-409	97.5%	+/-0.4
Born in United States	93,238	+/-406	97.2%	+/-0.4
State of residence	85,448	+/-717	89.1%	+/-0.7
Different state	7,790	+/-699	8.1%	+/-0.7
Born in Puerto Rico, U.S. Island areas, or born abroad to American parent(s)	281	+/-152	0.3%	+/-0.2
Foreign born	2,376	+/-409	2.5%	+/-0.4
<b>U.S. CITIZENSHIP STATUS</b>				
Foreign-born population	2,376	+/-409	2,376	(X)
Naturalized U.S. citizen	610	+/-162	25.7%	+/-8.5
Not a U.S. citizen	1,766	+/-441	74.3%	+/-8.5
<b>YEAR OF ENTRY</b>				
Population born outside the United States	2,657	+/-406	2,657	(X)
Native	281	+/-152	281	(X)
Entered 2000 or later	121	+/-131	43.1%	+/-29.6
Entered before 2000	160	+/-73	56.9%	+/-29.6
Foreign born	2,376	+/-409	2,376	(X)
Entered 2000 or later	1,440	+/-458	60.6%	+/-11.7
Entered before 2000	936	+/-213	39.4%	+/-11.7
<b>WORLD REGION OF BIRTH OF FOREIGN BORN</b>				
Foreign-born population, excluding population born at sea	2,376	+/-409	2,376	(X)
Europe	155	+/-87	6.5%	+/-3.5
Asia	449	+/-94	18.9%	+/-4.8
Africa	65	+/-62	2.7%	+/-2.7
Oceania	0	+/-92	0.0%	+/-1.5
Latin America	1,692	+/-377	71.2%	+/-6.0
Northern America	15	+/-17	0.6%	+/-0.7

Subject	Lafourche Parish, Louisiana			
	Estimate	Margin of Error	Percent	Percent Margin of Error
LANGUAGE SPOKEN AT HOME				
Population 5 years and over	89,205	+/-49	89,205	(X)
English only	72,202	+/-893	80.9%	+/-1.0
Language other than English	17,003	+/-891	19.1%	+/-1.0
Speak English less than "very well"	3,531	+/-580	4.0%	+/-0.7
Spanish	3,370	+/-508	3.8%	+/-0.6
Speak English less than "very well"	1,515	+/-490	1.7%	+/-0.5
Other Indo-European languages	13,169	+/-746	14.8%	+/-0.8
Speak English less than "very well"	1,856	+/-308	2.1%	+/-0.3
Asian and Pacific Islander languages	395	+/-164	0.4%	+/-0.2
Speak English less than "very well"	121	+/-74	0.1%	+/-0.1
Other languages	69	+/-64	0.1%	+/-0.1
Speak English less than "very well"	39	+/-54	0.0%	+/-0.1
ANCESTRY				
Total population	95,895	****	95,895	(X)
American	13,569	+/-1,259	14.1%	+/-1.3
Arab	76	+/-63	0.1%	+/-0.1
Czech	35	+/-33	0.0%	+/-0.1
Danish	12	+/-18	0.0%	+/-0.1
Dutch	143	+/-85	0.1%	+/-0.1
English	4,562	+/-782	4.8%	+/-0.8
French (except Basque)	23,451	+/-1,251	24.5%	+/-1.3
French Canadian	11,627	+/-1,376	12.1%	+/-1.4
German	5,510	+/-604	5.7%	+/-0.6
Greek	58	+/-69	0.1%	+/-0.1
Hungarian	25	+/-28	0.0%	+/-0.1
Irish	3,497	+/-443	3.6%	+/-0.5
Italian	3,729	+/-517	3.9%	+/-0.5
Lithuanian	0	+/-92	0.0%	+/-0.1
Norwegian	80	+/-69	0.1%	+/-0.1
Polish	223	+/-153	0.2%	+/-0.2
Portuguese	122	+/-84	0.1%	+/-0.1
Russian	76	+/-67	0.1%	+/-0.1
Scotch-Irish	263	+/-130	0.3%	+/-0.1
Scottish	298	+/-129	0.3%	+/-0.1
Slovak	0	+/-92	0.0%	+/-0.1
Subsaharan African	136	+/-109	0.1%	+/-0.1
Swedish	120	+/-100	0.1%	+/-0.1
Swiss	28	+/-32	0.0%	+/-0.1
Ukrainian	0	+/-92	0.0%	+/-0.1
Welsh	154	+/-154	0.2%	+/-0.2
West Indian (excluding Hispanic origin groups)	62	+/-49	0.1%	+/-0.1

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

While the 2007-2011 American Community Survey (ACS) data generally reflect the December 2009 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

Estimates of urban and rural population, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2000 data. Boundaries for urban areas have not been updated since Census 2000. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Explanation of Symbols:

1. An '\*\*\*' entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.
2. An '-' entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution.
3. An '-' following a median estimate means the median falls in the lowest interval of an open-ended distribution.
4. An '+' following a median estimate means the median falls in the upper interval of an open-ended distribution.
5. An '\*\*\*' entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.
6. An '\*\*\*\*\*' entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.
7. An 'N' entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.
8. An '(X)' means that the estimate is not applicable or not available.

**THIS ORDINANCE WAS AMENDED BY  
ORDINANCE NO. 5109 AT THE JUNE 22, 2012 LPC MEETING.**

The following ordinance was introduced by Mr. Daniel Lorraine in regular session convened on March 22, 2011.

**PROPOSED ORDINANCE**

The following ordinance, having been previously introduced and published, was offered for final adoption by Mr. Daniel Lorraine, seconded by Mr. Joe Fertitta.

**ORDINANCE NO. 4904**

**AN ORDINANCE TO AMEND ORDINANCE NO. 3598, PERTAINING TO NOISE CONTROL, CHAPTER 15, SUB-CHAPTER "F", OF THE CODE OF ORDINANCES, RELATIVE TO STRENGTHENING AND PROVIDING A MORE ENFORCEABLE NOISE ORDINANCE.**

**WHEREAS**, this Ordinance shall amend Ordinance No. 3598 (Noise Ordinance), Chapter 15, Sub-Chapter F, of the Code of Ordinances of the Lafourche Parish Council, to reflect the following:

CHAPTER 15

MISCELLANEOUS CRIMES AND OFFENSES\*

Sub-Chapter F

Noise Control

Part I. In General

15:112-15:125. RESERVED

SECTION 15:130 POLICY; CRIMINAL NOISE CODE

It is hereby declared to be the policy of the Parish to prohibit unnecessary, excessive and annoying noises from all sources subject to its police power. At certain levels noises are detrimental to the health and welfare of the citizenry and in the public interests shall be systematically proscribed. Lafourche Parish Code of Ordinance sections 15-130 through 15-140 shall be designated as the criminal noise code.

SECTION 15:131 NOISE DEFINITIONS

All terminology used in the criminal noise code, not otherwise defined herein, shall be construed in conformance with applicable publications of the American National Standards Institute (ANSI) or its successor body. Subject to the foregoing, the following words and phrases, when used in the criminal noise code, shall have the meanings respectively ascribed to them:

(A) *Ambient noise level or levels* means the sound level or noise in the environment and/or background which exists at a point of measurement in the absence of the sound or noise emission of interest complained of being measured.

(B) *A-weighted sound level* means the sound pressure level in decibels as measured on a sound level meter using the A-weighting network. The level so read is designated dB(A) or dBA.

(C) *Construction* means any site preparation, assembly, erection, substantial repair, alteration, or similar repair, alteration, or similar action, including demolition, for or of public or private rights-of-way, structures, utilities or similar property.

(D) *Decibel (dB)* means a unit for measuring the volume of a sound, equal to twenty (20) times the logarithm to the base ten (10) of the ratio of the pressure of the sound measured to the reference pressure, which is twenty (20) micropascals (twenty (20) micronewtons per square meter).

(E) *Demolition* means any dismantling, intentional destruction or removal of structures, utilities, public or private right-of-way surfaces, or similar property.

(F) *Emergency* means any occurrence or set of circumstances involving actual or imminent physical trauma or property-damage which demands immediate action.

(G) *Emergency work* means any work performed for the purpose of preventing or alleviating the physical trauma or property damage threatened or caused by an emergency.

(H) *Impulsive sound* means sound of short duration, usually less than one second, with an abrupt onset and rapid decay. Examples of sources of impulsive sound include explosions, drop forge impacts, and the discharge of firearms. Impulsive sound also includes "peak noise," as that term is defined in ANSI SI.4-1983, or any successor thereto.

(I) *Motor vehicle* means any vehicle which is propelled or drawn on land by a motor, such as, but not limited to, passenger cars, trucks, truck-trailers, semitrailers, campers, go-carts, amphibious craft on land, dune buggies, or racing vehicles, but not including motorcycles.

(J) *Motorboat* means any vessel which operates on water and which is propelled by a motor, including but not limited to boats, barges, amphibious craft, water ski towing devices and hover craft.

(K) *Motorcycle* means an unenclosed motor vehicle having a saddle for the use of the operator and two (2) or three (3) wheels in contact with the ground, including but not limited to motor scooters and minibikes, and an unenclosed motor vehicle having a saddle for the use of the operator and four (4) wheels in contact with the ground which is commonly referred to as a "four-wheeler" or alternatively as an "all-terrain vehicle."

(L) *Muffler or sound-dissipative device* means a device for abating the sound of escaping gases of an internal-combustion engine.

(M) *Noise* means any sound which unreasonably annoys or unreasonable disturbs humans and/or which causes and/or tends to cause an adverse psychological or physiological effect on humans.

- (N) *Noise disturbance* means any sound which:
1. Endangers or injures the safety or health of humans or animals; or
  2. Annoys or disturbs a reasonable person of normal sensitivities; or
  3. Endangers or injures personal or real property.

(O) *Person* means any individual, association, partnership or corporation, and includes any officer, employee, department, agency or instrumentality of a state or any political subdivision of a state.

(P) *Property line* means an imaginary line along the ground surface, and its vertical extension, which separates the real property owned by one person from that owned by another person, but not including intrabuilding real property divisions.

(Q) *Public right-of-way* means any street, avenue, boulevard, highway, sidewalk or alley or similar place which is owned or controlled by a governmental entity.

(R) *Public space* means any real property or structures thereon which are owned and/or controlled by a governmental entity.

(S) *Pure tone* means any sound which can be distinctly heard as a single pitch or a set of single pitches. For the purposes of the Criminal Noise Code, a pure tone shall exist if the one-third octave band sound pressure level in the band when the tone exceeds the arithmetic average of the sound pressure levels of the two (2) contiguous one-third octave bands by five (5) dB for center frequencies of five hundred (500) Hz and above and by eight (8) dB for center frequencies between one hundred sixty (160) and four hundred (400) Hz and by fifteen (15) dB for center frequencies less than or equal to one hundred twenty-five (125) Hz.

(T) *Receiving property* means the property from which the sound is measured, and includes public property and public rights-of-way.

(U) *Sound* means an oscillation in pressure, particle displacement, particle velocity or other physical parameter, in a medium with internal forces that causes compression and rarefaction of that medium. The description of sound may include any characteristic of such sound, including direction,

intensity and frequency.

(V) *Sound level* means the weighted sound pressure level obtained by the use of a sound level meter and frequency weighting network such as A, B, or C as specified in American National Standards Institute specifications for sound level meters (ANSI S1.4-1983), or the latest approved revision thereof, measured in Fast Time weighting as defined in ANSI S1.4-1983, or any successor thereto. If the frequency weighting employed is not indicated, the A-weighting shall apply.

(W) *Sound level meter* means an instrument which includes a microphone, amplifier, RMS detector, integrator or time averager, output meter, and weighting networks used to measure sound pressure levels.

(X) *Sound pressure* means the instantaneous difference between the actual pressure and the average or barometric pressure at a given point in space, as produced by sound energy.

(Y) *Sound pressure level* means twenty (20) times the logarithm to the base ten (10) of the ratio of the RMS sound pressure to the reference pressure of twenty (20) micropascals ( $20 \times 10^{-6}$  N/m<sup>2</sup>). The sound pressure level is denoted L, or SPL and is expressed in decibels.

#### SECTION 15:132 DISTURBING THE PEACE

Noise of such character, intensity or duration as to be detrimental to the life or health of any individual, or in disturbance of the public peace and welfare is prohibited.

#### SECTION 15:133 EVIDENCE OF A VIOLATION

A. *Sound emanating from immovable property.* Prima facie evidence of a violation shall exist when each of the following exist:

- ~~1. A sound level measurement of the sound or noise complained of is taken on the receiving property in accordance with Sec. 15-134 herein; and~~
- ~~1,2. The measurement of the sound or noise complained of exceeds permissible levels as enumerated in Sec. 15-136 herein; and~~
- ~~3. The measurement of the sound or noise complained of exceeds ambient noise levels by ten (10) decibels or more.~~
- 2. The sound or noise emanating from the sound amplification system is:**
  - (a) Plainly audible to the unaided human ear at a distance greater than twenty-five (25) feet;**

B. *Sound emanating from movable property.*

No person, between the hours of ten o'clock in the evening and seven o'clock the following morning, shall operate or permit the operation of any sound amplification system which emanates unreasonably loud or excessive sound or noise which is likely to cause and/or which causes inconvenience or annoyance to persons of ordinary sensibilities, when both the following exist:

1. The sound amplification system is located in or on any motor vehicle on a public street, highway, public park, public right-of-way, or public space.
- ~~2. The sound or noise emanating from the sound amplification system is:~~
  - ~~(a) Plainly audible to the unaided human ear at a distance greater than twenty-five (25) feet; or~~
  - ~~(a) (b) Measured at eighty-five fifty (85) (50) decibels or more and is in excess of ambient noise levels by ten (10) decibels, when measured at any distance.~~

Furthermore, No person, between the hours of seven o'clock in the morning and ten o'clock in the evening shall operate or permit the operation of any sound amplification system which emanates unreasonably loud or excessive sound or noise which is likely to cause and/or which causes inconvenience or annoyance to persons of ordinary sensibilities, when both the following exist:

1. The sound amplification system is located in or on any motor vehicle on a public street, highway, public park, public right-of-way, or public space.
2. The sound or noise emanating from the sound amplification system is:
  - (a) Plainly audible to the unaided human ear at a distance greater than fifty (50) feet; or
  - (b) Measured at ~~ninety fifty (90)~~ **(50)** decibels or more and is in excess of ambient noise levels by ten (10) decibels, when measured at any distance.

SECTION 15:134 PROCEDURES AND MEASUREMENTS

Unless otherwise provided in this chapter, sound level measurements shall be taken with a sound level meter microphone located at any point on the receiving property, real property boundary or other point as provided in this chapter, no closer than five (5) feet from any wall or vertical obstruction when possible, and where practicable not less than five (5) feet above ground level, but in no event less than three (3) feet above ground.

SECTION 15:135 IMPOUNDMENT

The police department may impound and retain as evidence any instrumentality used to create any sound or noise in violation of the criminal noise code, and, in the case of motor vehicles, the owner shall be responsible for ordinary towing and storage charges incurred in the course of the impoundment. Motor vehicles shall be impounded for no greater than seventy-two (72) hours, and shall be released as expeditiously as possible upon an inventory search of the subject vehicle being conducted to inventory any sound or noise making apparatus therein. Any vehicle impounded shall be released expeditiously as possible upon a showing to the seizing authority that the continued impoundment will pose a grave risk of harm or great hardship upon the owner or those whom rely upon the owner for transportation.

SECTION 15:136 PROHIBITIONS

A. *Maximum permissible sound limits.* It shall be unlawful to make, cause or allow the making of any noise or sound which violates the provisions of this section.

1. No person shall operate or cause to be operated any source from any location in such a manner as to create a sound level which exceeds the limits set forth in Table 1 for the receiving land use category more than ten (10) percent of any measurement period, which period shall not be less than ten (10) minutes, when measured at or beyond the property boundary of the land use category from which the sound emanates, provided, however, that in the case of multifamily dwelling land use category, the sound level shall be measured within an adjacent intra-building dwelling.
2. For any source of sound, the sound level shall not exceed the maximum permissible sound level limit set forth in Table 1 by fifteen (15) dB(A) for all land use categories.
3. Sound level measurement shall be made with a sound level meter using the A-weighting scale in accordance with the standards promulgated by the American National Standards Institute.

Table 1  
Maximum Permissible Sound Levels By Receiving Land Use Category

TABLE INSET:

Land Use Category	Time	Sound Level Limit (dB(A))
Residential, noise-sensitive area, public space:	7:00 a.m.--9:59 p.m.	<del>70</del> <b>50</b>
	10:00 p.m.--6:59 a.m.	<del>55</del> <b>50</b>
Multifamily dwelling:	7:00 a.m.--9:59 p.m.	<del>60</del> <b>50</b>
	10:00 p.m.--6:59 a.m.	45
Commercial, convention:	7:00 a.m.--9:59 p.m.	<del>70</del> <b>50</b>
	10:00 p.m.--6:59 a.m.	<del>60</del> <b>50</b>
Industrial:	At all times	<del>75</del> <b>50</b>

B. Exemptions. The following are exempt from sound level limits of Table 1:

1. Domestic power tools, lawn movers and agricultural equipment, when operated with a muffler, between the hours of 7:00 a.m. to 9:00 p.m. on weekdays and Saturdays and 8:00 a.m. to 9:00 p.m. on Sundays and holidays.
2. Noises resulting from any authorized emergency vehicles when responding to an emergency.
3. Noises made by persons having obtained a permit.
4. Any noise resulting from activities of a temporary duration, for which a permit has been granted pursuant to this section, and which conforms to the conditions and limits stated thereon.
5. Noises from church bells and chimes.
6. Noises from temporary construction activity are exempt from Table 1, except that the industrial sound level limit shall apply in all land use categories and the restrictions for use of equipment in construction activity as stated.
7. Collection of garbage, refuse, or recyclables by the parish and/or its contractors.
8. Aircraft operations. Nothing in this section shall be construed to prohibit, restrict, penalize, enjoin or in any manner regulate the movement of aircraft and/or airport aircraft operations which are in all respects conducted in accordance with or pursuant to applicable federal laws or regulations.

C. *Specific prohibitions.* In addition to the general prohibitions set out above, the following specific acts are declared to be in violation of this section:

1. *Horns, signaling devices.* The sounding of any horn or signaling device on any motor vehicle on any street or public place in the parish continuously and/or incessantly for a period in excess of sixty (60) seconds, except as a danger warning.
2. *Radios, televisions, musical instruments and similar devices:*
  - a. The operating or playing of any radio, musical instrument or similar device which produces or reproduces sound on public right-of ways in such a manner as to exceed the maximum permissible sound levels by any receiving land use category set out in Table 1 of section 15-136 of the Lafourche Parish Code of Ordinances.
  - b. The operating or playing of any radio, television, phonograph, musical instrument or similar device which produces or reproduces sound in a motor vehicle or public park in a manner as to be plainly audible at a distance of fifty (50) feet.
  - c. The operating or playing of any radio, television, phonographs, musical instruments or similar device which produces or reproduces sound in such a manner as to exceed the levels set forth in Table 1 for the land use category.
3. *Loudspeakers and sound amplifiers.* The using or operating of any loudspeaker, loudspeaker system, sound amplifier or other similar device between the hours of 10:00 p.m. and 7:00 a.m. on weekdays, and 10:00 p.m. and 10:00 a.m. on weekends and holidays, within or adjacent to residential or noise sensitive areas such that the sound therefrom is plainly audible across the real property line of the source; provided, however, that this shall not apply to any public performance, gathering or parade for which a permit has been obtained.
4. *Street sales.* The offering for sale by shouting or outcry within any residential or noise-sensitive area except by permit issued by the parish if the shouting or outcry exceeds the maximum permissible sound levels shown in Table 1.

5. *Animals.* The owning, possessing, or harboring of any animal which frequently, or for continued duration, howls, barks, squawks, or makes other sounds which create excessive and unnecessary noise across a residential or commercial real property line or within a noise sensitive area. For the purpose of this section, "barking dog" shall mean a dog that barks, bays, cries, howls or makes any other noise continuously and/or incessantly for a period of ten (10) minutes, or barks intermittently for one-half ( 1/2) hour or more to the disturbance of any person at any time of day or night, regardless of whether the dog is physically situated in or upon private property; provided, however, that the dog shall not be deemed a "barking dog" if, at the time the dog is barking or making any other noise, a person is trespassing or threatening to trespass upon property in or upon which the dog is situated.
6. *Construction and demolition.* The operating of any equipment used in construction work within three hundred (300) feet of any residential or noise-sensitive area between the hours of 9:00 p.m. to 7:00 a.m. on weekdays and Saturdays and 9:00 p.m. to 8:00 a.m. on Sundays and holidays, except for emergency work. The construction firm shall report any use of construction equipment for emergency work within three hundred (300) feet of any residential or noise-sensitive area during the restricted hours as stated herein shall be reported before such work begins or as soon as possible thereafter to the department of inspection and code enforcement. The report shall state with sufficient details the nature of the emergency requiring the use of construction equipment.
7. *Emergency signaling devices:*
  - a. Except in cases of an emergency, the intentional sounding of any alarm between the hours of 10:00 p.m. and 7:00 a.m.
  - b. The testing of any alarm for a period in excess of sixty (60) seconds at any time.
  - c. The testing of a complete emergency signaling system, including the signaling device and the personnel response to the signaling device, more than once in each calendar month and the sounding of said emergency signaling system for a period in excess of fifteen (15) minutes.
8. *Motor vehicles.* No person shall operate or cause to be operated any motor vehicle, or motorcycle not equipped with a muffler in good working order and in constant operation. No person shall remove or render inoperative or cause to be removed or rendered inoperative, any muffler or sound-dissipative device on a motor vehicle or motorcycle other than for the purpose of maintenance, repair or replacement. In addition, subject to the exemptions provided in subsection (g) herein, no person shall operate or play, or permit the operation or playing of, any radio, television, phonograph, stereo, drum, musical instrument, sound amplifier or similar device which produces, reproduces or amplifies sound in such a manner as to create a noise disturbance at a distance of fifty (50) feet from such radio, television, phonograph, stereo, drum, musical instrument, sound amplifier or similar device when it is played or operated in or on a motor vehicle that is on any public right-of-way or in any public space.
9. *Recreational motorized vehicles operating off public rights-of-way.* No person shall operate or cause to be operated any recreational motorized vehicle on a public right-of-way or on private property in such a manner that the sound level emitted therefrom exceeds levels listed in Table 1 of Section 15-136 including any pure tone or impulse sound, at or across the boundary of any private property receiving the sound or noise. This section shall apply to all recreational motorized vehicles, whether or not fully licensed and registered, including but not limited to commercial or noncommercial racing vehicles, motorcycles, go-carts, minibikes, snowmobiles, amphibious craft, campers and dune buggies, but not including motorboats. Sound measurements shall be performed in accordance with subsection (b) herein.

D. *Noise-sensitive zones.* It shall be unlawful for any person to create any sound or noise, including any pure tone, which exceeds fifty-five (55) dBA at or within the property line of the following facilities and at the following times:

1. Any public or private pre-school, day care, kindergarten, or primary or secondary school between the hours of 7:00 a.m. and 4:00 p.m. on weekdays when school is in session;
2. Any licensed nursing home or assisted living facility between the hours of 8:00 p.m. and 8:00 a.m.;
3. Any doctor's office, hospital, clinic, or out-patient surgery facility at any time;
4. Any funeral home at any time.

SECTION 15:137 TEMPORARY PERMITS

A. The Parish of Lafourche nuisance office may grant a temporary permit which allows noncompliance with the limitations prescribed in the criminal noise code for the purpose of sound activities of short duration.

B. Permits may be granted upon application, at a cost of one hundred dollars (\$100.00), when said application is in compliance with the provisions of subsection (c) herein. This fee may be waived for non-profit corporations with the production of documentation certifying non-profit status.

C. The following factors shall be considered in the initial investigation in order to determine whether granting the permit will result in a condition injurious to health or safety:

- (1) Distance of proposed activities from any residential or noise-sensitive zone;
- (2) Number of amplification devices, if any, to be used in the proposed activities;
- (3) Sound level capability of amplification devices and anticipated sound level;
- (4) Anticipated direction of amplification devices;
- (5) Anticipated duration of proposed activities;
- (6) Whether the activity will be held within or outside of a structure;
- (7) Time of day and day of week of proposed activities;
- (8) Any other considerations deemed necessary by the department.

D. The permit, if issued, shall specify the place, duration and any restrictions appropriate to the proposed site of the activities.

E. Permits must be displayed and available for review by police officers or department personnel upon request.

F. Issued permits will be surrendered to any police officer or department or other parish official upon request when the restrictions of the permit have been violated.

G. Reapplication for a permit may be denied upon evidence of a complaint by a resident in the locality of the permitted activity or if an applicant has in the past been required to surrender a permit as described subsection (f).

H. A permit may be issued for more than one (1) occasion of activity. However, the time of such activity must be indicated on the application and cannot be for more than four (4) occasions or in excess of a six-week span.

I. Appeals: If the parish fails to grant or deny the variance within seven (7) calendar days, or if the variance is denied, the applicant may immediately appeal the denial to any court of competent jurisdiction.

SECTION 15:140 PENALTY

Any person violating this section pertaining to noise emanating from within private structures or commercial establishments or structures, upon conviction thereof shall be fined one hundred dollars (\$100.00) for the first offense, and shall be fined five hundred dollars (\$500.00) and/or imprisoned for a period not to exceed ninety (90) days for the second offense, and shall be fined five hundred dollars (\$500.00) and shall be imprisoned for a period of not less than thirty (30) days and not to exceed ninety (90) days, without benefit of suspension of sentence, for the third and all subsequent offenses. Upon three (3) violations of this section, a court of competent jurisdiction may grant permanent injunctive relief against a violator. Any person violating this section pertaining to noise emanating from motor vehicles, upon conviction thereof shall be fined one hundred dollars (\$100.00) for the first offense, shall be fined two hundred fifty dollars (\$250.00) for the second offense, and shall be fined five hundred dollars (\$500.00) for the third and all subsequent offenses.

SECTION 15:141 SEVERABILITY

If any provision of the criminal noise code should be invalidated or found to be otherwise unenforceable by any court of competent jurisdiction, the remaining provisions shall be considered severable, and shall remain in full force and effect.

**THEREFORE, BE IT ORDAINED**, that the Lafourche Parish Council convened in Regular Session on April 12, 2011, and hereby amends Ordinance No. 3598 (Noise Ordinance), in Chapter 15, Sub-Chapter F, of the Code of Ordinances of the Lafourche Parish Council, thus reflecting the above stated amendments.

**BE IT FURTHER ORDAINED**, that a certified copy of this Ordinance shall be forwarded to the Lafourche Parish Government Office of the Parish Administrator; the Lafourche Parish Sheriff's Office; the Lafourche Parish District Attorney's Office; and the 17th Judicial District Court Judges.

**BE IT FURTHER ORDAINED**, that:

**SECTION 1.** The Sheriff of this Parish is hereby specifically requested to assist in the enforcement of the provisions of this Ordinance.

**SECTION 2.** If any provision or item of this Ordinance or the application thereof is held invalid, such invalidity shall not effect other provisions, items or application of this Ordinance which can be given affect without the invalid provisions, items or application, and to this end the provisions of this Ordinance are declared severable.

**SECTION 3.** All Ordinances by the Lafourche Parish Council conflicting with or inconsistent with the provisions of these regulations are hereby repealed.

**SECTION 4.** This Ordinance shall be published in the Official Journal of the Lafourche Parish Council in the manner provided by law.

**SECTION 5.** This Ordinance, having been submitted in writing, having been read and adopted by sections at a public meeting of said council, was then submitted to an official vote as a whole, the vote thereon being as follows:

**YEAS:** Mr. Jerry Jones  
Mr. Michael Delatte  
Mr. Louis Richard  
Mr. Joseph "Joe" Fertitta  
Mr. Matt Matherne  
Mr. Phillip Gouaux  
Mr. Rodney Doucet  
Mr. Daniel Lorraine

**NAYS:** None

**ABSENT:** Mr. Lindel Toups

**SECTION 6.** This Ordinance shall become effective on the tenth day after final publication.

/s/ Louis Richard  
**LOUIS RICHARD, CHAIRMAN**  
**LAFOURCHE PARISH COUNCIL**

/s/ Tira L. Harden  
**TIRA L. HARDEN, ASSISTANT**  
**TO THE COUNCIL CLERK**  
**LAFOURCHE PARISH COUNCIL**

\*\*\*\*\*

**Delivered to the Parish President on**

**April 18, 2011, at 4:00 p.m.**

**APPROVED:          X**

**UNAPPROVED:**

**VETOED:**

/s/ Charlotte A. Randolph  
**Lafourche Parish President**

**Returned to the Council Clerk on**

**April 18, 2011 at 5:27 p.m.**

\*\*\*\*\*

I, TIRA L. HARDEN, Assistant to the Council Clerk for the Lafourche Parish Council, do hereby certify that the foregoing is a true and correct copy of Ordinance No. 4904, enacted by the Assembled Council in Regular Session on April 12, 2011, at which meeting a quorum was present, and was finally adopted on April 18, 2011.

GIVEN UNDER MY OFFICIAL SIGNATURE AND SEAL OF OFFICE THIS 26TH DAY OF APRIL, 2011.

/s/ Tira L. Harden  
**TIRA L. HARDEN, ASSISTANT**  
**TO THE COUNCIL CLERK**  
**LAFOURCHE PARISH COUNCIL**

DATE PUBLISHED: MAY 2, 2011

DATE EFFECTIVE: MAY 12, 2011



## **Attachment No. 9**

### 8-Step Decision Making Process

Industrial Park Rd. Floodwall & North Intracoastal  
Drainage Improvements

**Executive Order 11988 – Floodplain Management  
Eight-Step Decision Making Process**

Executive Order 11988 (Floodplain Management) requires federal agencies “to avoid to the extent possible the long and short term adverse impacts associated with the occupancy and modification of the floodplain and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative.” FEMA’s implementing regulations are at 24 CFR Part 9, which includes an eight step decision making process for compliance with this part.

This eight step process is applied to the proposed project. The proposed project area is within the 100-year floodplain of The Gulf Intracoastal Waterway (GIWW) and 40 Arpent Canal. The steps in the decision making process are as follows:

***Step 1 Determine if the proposed action is located in the Base Floodplain.***

The proposed project involves the construction of a floodwall structure and drainage improvements (altering main outfall ditches, installing larger pump, replacement of drainage culvert) to an area located in Larose, LA. The entire project area will be located within the 100-year floodplain.

The entire project area will be located within the 100-year floodplain (according to Flood Insurance Rate Maps #22057C0510E Effective July 30, 2008)). The floodplains in relation to the community and project area are depicted on the map in Appendix 1.

***Step 2 Early public notice (Preliminary Notice)***

A public notice concerning the Industrial Park Floodwall & North Intracoastal Drainage Improvements will be published in the Lafourche Gazette newspaper together with the Notice of Availability of the draft NEPA document. The Lafourche Gazette is the local and regional newspaper for the Larose and lower Lafourche area, including the floodplain area of the project area.

***Step 3 Identify and evaluate alternatives to locating in the base floodplain.***

The existing community to be served by the Industrial Park Floodwall & North Intracoastal Drainage Improvements is within 100- year floodplains. The floodwall, culverts, main outfall ditches, and pump station must serve existing development, including residences and businesses within the 100- year floodplains. In order to serve existing development located within floodplains, the floodwall, culverts, main outfall ditches, and pump stations in a drainage basin must also be located within the floodplains. The pump station serving the drainage basin is below the established 100-yr base flood elevation for the area.

Alternatives to locating the existing pump station outside of the floodplain were determined to be infeasible. Drainage system alternatives to the main outfall ditch system would not have a lower impact on floodplains.

Alternatives to the proposed main outfall ditch system were evaluated and determined to be infeasible. Drainage system alternatives to the main outfall ditch system would not have a lower impact on floodplains.

***Step 4 Identify impacts of proposed action associated with occupancy or modification of the floodplain.*****Impact on natural function of the floodplain**

The Industrial Park Floodwall & North Intracoastal Drainage Improvements would not affect the functions and values of the 100-year floodplain. The Industrial Park Floodwall & North Intracoastal Drainage Improvements would not place within 100- or 500-year floodplains structures which would impede or redirect flood flows.

The Industrial Park Floodwall & North Intracoastal Drainage Improvements would not facilitate development in the 100-year floodplain and will not facilitate development in the 500-year floodplain to any greater degree than in non-floodplain areas of the community. No development of critical facilities (hospitals, emergency services, fire stations, etc.) within the 100-year floodplain served by the project is anticipated by existing land regulations and community plans. Any new development within floodplains would be required to comply with applicable ordinances and building codes.

#### Impact of the flood water on the proposed facilities

The existing main outfall ditches would not be affected by flood water following improvements. The T-Bois Pump Station in floodplains, is elevated above the 500 year flood elevation and inundation by flood water is not a risk. In a catastrophic flood, sediment and other debris could clog main outfall ditches pump station vaults such that more extensive maintenance would be required before optimal drainage could resume.

The pump station operation would not be affected by power outages due to diesel driven pumps.

#### **Step 5 Design or modify the proposed action to minimize threats to life and property and preserve its natural and beneficial floodplain values.**

The Industrial Park Floodwall & North Intracoastal Drainage Improvements is designed to minimize floodplain impacts. Where facilities are required to serve existing development located within floodplains, facilities are elevated to the extent feasible.

#### **Step 6 Re-evaluate the proposed action.**

The project will not expose any segment of the population to flood hazards due its overall intent being to increase drainage efficiency of the project area. The proposed action will not facilitate development in the floodplains to any greater degree than non-floodplain areas of the community. The project will not aggravate the current flood hazard because the overall intent is to increase drainage efficiency and provide tidal surge protection to the project area. The project will not disrupt floodplain values because it will not change water levels in the floodplain, and will not reduce habitat in the floodplain. Therefore, it is still practicable to construct the proposed project within the floodplain.

Alternatives consisting of locating the project outside the floodplain or taking “no action” are not practicable.

#### **Step 7 Findings and Public Explanation (Final Notification)**

After evaluating alternatives, including impacts and mitigation opportunities the Parish determined that the proposed project is the most practical alternative.

It is our determination that there is no practicable alternative to locating a portion of the project in the 100-year floodplains of North Intracoastal Drainage Basin:

1. The community exists within the floodplains, and the purpose of the actions proposed is to minimize the exposure of the residential properties in the project area to the damaging effects of flooding resulting from natural disasters.

2. The pump station within the 100- year floodplain must be located within the floodplain because there is no practical alternative that would allow improved drainage within the project area. The pump station will also be elevated above the 500-year floodplain to ensure that flood waters do not affect the operation of the pumps.

1. A “no action” plan would not resolve or improve the existing drainage problem in the North Intracoastal Drainage Basin.

***Step 8 Implement the action***

The proposed Industrial Park Floodwall & North Intracoastal Drainage Improvements will be constructed in accordance with applicable floodplain development requirements.