

Draft Environmental Assessment

# **Stephensville Flood Protection and Pumping Station Retrofit**

St. Martin Parish, Louisiana

Hazard Mitigation Grant Program

Project Number 1603-0213

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**FEMA**

**U.S. Department of Homeland Security  
Federal Emergency Management Agency, Region VI  
Louisiana Recovery Office  
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## LIST OF ACRONYMS

APE	Area of Potential Effects
BMP	Best Management Practices
CAA	Clean Air Act
CBRA	Coastal Barrier Resources Act
CBRS	Coastal Barrier Resources System
CUP	Coastal Use Permit
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
DEA	Draft Environmental Assessment
DFIRM	Digital Flood Insurance Rate Map
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act
GOHSEP	Governor's Office of Homeland Security and Emergency Preparedness
LDEQ	Louisiana Department of Environmental Quality
LDNR	Louisiana Department of Natural Resources
NAVD	North American Vertical Datum
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
NRCS	Natural Resources Conservation Services
OPA	Otherwise Protected Area
RCRA	Resource Conservation and Recovery Act
RHA	Rivers and Harbors Act
SHPO	State Historic Preservation Office/Officer
THPO	Tribal Historic Preservation Office/Officer
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
WSRA	Wild and Scenic Rivers Act

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## **1.0 INTRODUCTION**

### **1.1 Project Authority**

On August 29, 2005 Hurricane Katrina, a Category 4 hurricane with a storm surge well above normal high tide levels, moved across the Louisiana, Mississippi, and Alabama Gulf Coasts. Maximum sustained winds at landfall were estimated at 140 miles per hour. President George W. Bush declared a major disaster for the state of Louisiana due to damages from Hurricane Katrina and signed a disaster declaration (FEMA-1603-DR-LA) on August 29, 2005, authorizing the Department of Homeland Security's Federal Emergency Management Agency (FEMA) to provide federal assistance in designated areas of Louisiana. FEMA is administering this disaster assistance pursuant to the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), PL 93-288, as amended. Section 404 and Section 406 of the Stafford Act authorizes FEMA's Hazard Mitigation Program to provide funds to states and local governments to implement long-term hazard mitigation measures after a major disaster declaration.

This Environmental Assessment (EA) is being prepared in compliance with the National Environmental Policy Act of 1969 (NEPA), the President's Council on Environmental Quality (CEQ) regulations implementing NEPA (Title 40 of the Code of Federal Regulations [CFR] Parts 1500 to 1508), and FEMA's regulations implementing NEPA (44 CFR Parts 9 and 10).

St. Martin Parish, through the Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) applied for funding under Federal Emergency Management Agency's (FEMA) Hazard Mitigation Grant Program (HMGP) to reduce flooding in the Stephenville area during rain, flooding, and hurricane/storm events. FEMA's HMGP provides grants to states and local governments to implement long-term hazard mitigation measures after a major disaster declaration. The purpose of this EA is to analyze 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).

### **1.2 Background**

St. Martin Parish is located in south-central Louisiana and encompasses an approximate 740 square mile area and is split into two (2) noncontiguous areas, upper and lower St. Martin (Figure 1). Situated in the Atchafalaya Basin, St. Martin Parish is largely an alluvial plain created by the deposition of sediment over time by the neighboring rivers. Lower St. Martin Parish is part of the Atchafalaya River System (western and central portion of the parish) and the St. Martin Basin System (lower eastern portion). The large majority of the lower portion of the parish is located inside of the Atchafalaya River Basin levee system. There is one levee alignment located in the east and southeast portions of lower St. Martin Parish, the east Atchafalaya Basin levee. The project area is located in Stephenville, Louisiana (29.7641, -91.1735) in lower St. Martin Parish and has a topography of mostly low-lying wetlands and a gently sloping coastline within close proximity to the Gulf of Mexico which makes it vulnerable to backwater flooding from the Atchafalaya River during heavy rainfall, and coastal storm surge, tides, and sea level rise from the Gulf of Mexico. The area is also prone to flooding resulting from heavy stormwater events north of the community in the Lake

Verret watershed [i.e., the Terrebonne Basin, which originates in Pointe Coupee Parish and flows through Lake Verret (Assumption Parish) and Lake Palourde (St. Martin, Assumption, and St. Mary Parishes)].



**Figure 1: Location of St. Martin Parish, LA**

The specific site for the proposed improvements is within the Bayou Estates Subdivision located north of Morgan City, Louisiana and immediately east of La. Hwy. 70 in lower St. Martin Parish. See Figure 2 for the project location map. A study by Professional Engineering and Environmental Consultants, Inc. (PEEC), on behalf of the applicant, in 2013 states that the majority of the flood events in the Stephenville area have been the direct result of significant rainfall. Combined with storm surge, the results can be devastating. The area is affected by a major storm every 2.71 years and directly hit by a hurricane every 7.83 years on average (PEEC 2013). During hurricanes and tropical storm events, the area floods because the water table rises in the drainage canals, adjacent bayous, and nearby Lake Palourde. The existing subsurface drainage system gets flooded when the water table rises extremely high and the system cannot drain into the nearby canals. Typically, these conditions result when the water in the canals adjacent to this subdivision rise an average of several feet which quickly inundates the Bayou Estates Subdivision offering little capacity for proper drainage and causing the streets and homes to be flooded.



**Figure 2: Stephensville Flood Protection and Pumping Station Retrofit Location Map, LA**

The Stephensville/Bayou Estates community is located in a low-lying area and built on swamp and wetland that was historically completely and constantly inundated. The land currently appears on historic Quad maps as swampy/marshy areas, and was only recently developed. Neighborhood residents stated that the development was constructed on deposited soils obtained from the dredging associated with the creation of the canals. The community is subjected to flooding during abnormal high tide conditions and storm events. This subdivision which consists of approximately 250 residences was flooded during both Hurricanes Gustav and Ike and the Parish was forced to use sand bags and portable pumps with portable generators to pump the water out of the area. See Figure 3 for a topographic overview of the project area.



**Figure 3: Project Area Topographic View, Stephensville, LA**

Per the 2013 report by PEEC, flooding in the community occurs when the outfall canal, Bayou Long, reaches elevations of approximately 4.0 ft. MSL. The flooding situation occurs with each spring's high-water stage of the Atchafalaya River as well as when rising waters generated by hurricanes from the Gulf of Mexico with prevailing south winds push backwards into the lower Atchafalaya River and Bayous Chene/Schafer/Black/Boeuf. These waters, in turn, raise still water levels in Lake Palourde, Bayou Milhomme, and Bayou Long. When water levels are elevated water flows in reverse through the existing catch basin outfalls. The wastewater treatment system is infiltrated. The pumping station that services the community is below the BFE, and pumping capacity needs to be increased. In 2008, for example, the community experienced flooded streets for 76 days. During these times, the parish provides sandbagged levees, balloons in outfall pipes, and pumps - to remove stormwater and leakage.

## **2.0 PURPOSE AND NEED**

### **2.1 Purpose**

Through the HMGP, FEMA provides grants to states and local governments to implement long-term hazard mitigation measures. The purpose of the HMGP is to reduce the loss of life and property due to natural disasters and to enable mitigation measures to be implemented during the immediate recovery from a disaster. The HMGP is authorized under Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act. St. Martin Parish identified "flooding" and "hurricanes/tropical storms" as two (2) of the most prevalent hazards to the community (St. Martin Parish Hazard Mitigation Plan 2014). In addition, review of the HMP resulted in the identification of several goals including, but not limited to the following:

- To eliminate the threat of catastrophic flood loss and mitigate all repetitive loss properties;
- To facilitate future development to reduce or eliminate potential impacts of disasters;
- To minimize property damage and injuries resulting from high winds (hurricane, tornado, wind storms, etc. and
- To enhance public awareness.

### **2.2 Need**

Due to the low-lying topography and the reverse flow of water into existing catch basins and outfalls when water rises, the subject area is particularly prone to experiencing riverine and backwater flooding from storm events. The specific need of this project is to effectively prevent intrusion of water and eliminate recurrent prolonged flooding experienced within the Bayou Estates subdivision.

## **3.0 ALTERNATIVES**

### **3.1 No Action Alternative**

Under the No Action Alternative, flooding would not be abated or improved. The No Action Alternative would result in continued inundation within the Bayou Estates Subdivision and

adjacent flooding in the Stephenville area from low frequency storm events. Under this alternative, continual flooding of the residential area would result in serious safety issues and continued increases in flood-related damages. This alternative would also result in hazardous conditions for not only the residents of St. Martin Parish, but also businesses and emergency responders who utilize the roadways and live in this area. The No Action Alternative will continue to be evaluated throughout this EA.

### **3.2 Proposed Action: Improvements and Protection up to Elevation +4.0 MSL**

The proposed action is to address rising water issues, and to protect the community of Stephenville, in particular Bayou Estates Subdivision from future flooding through the installation of flood control measures and upgrades to the existing pumping system as shown in Figure 4. As such, the following project improvements to protect Bayou Estates Subdivision from flooding are proposed as part of this project which include: 1) Installing 1000 linear feet of PVC sheet piles with the highest elevation at +6.0 NAVD (North American Vertical Datum) along the northern and eastern portion of the outer bank of the drainage canal; 2) Assembling one new roller and or, 30' foot hinged aluminum floodgate along the north bank of Bayou Estates Subdivision; 3) Installing one (1) new drainage pump station with two (2) -50 cubic feet per second (CFS) pumps and a generator to create a forced drainage area under storm events; 4) Rebuilding and elevating the existing drainage pump station at the entrance to the subdivision; 5) Repairing existing canal banks throughout the development; 6) Removing the existing drain pipes from the outer canals and installing new pipes to allow storm water to be directed towards the drainage pump stations; 7) Constructing a 250' foot earthen berm on the western edge of the subdivision and behind the homes with low ground elevation to prevent storm water from entering along the western boundary of the subdivision; 8) Installing six (6) short-run low earthen berms along portions of the subdivision adjacent to Dawn Drive and Stephenville Road; and execute minor upgrades and enlargements to several catch basins and culverts throughout the subdivision. Site photographs are exhibited in Appendix A. The extensive site plan drawings are shown in Appendix B.

Per the report from PEEC, Inc., these proposed improvements would provide a water tight system for all sewer manholes to prevent water from intruding the wastewater treatment system, flap gates at each of the outfalls identified on the drawings to prevent flooding from water flowing reversed in existing catch basins and outfalls when waterways rise, and increase the pumping capacity of the existing pump station and elevate the existing equipment on to a platform above the BFE. The pumping capacity would be improved by lining the sump area, reinforcing walls with sheet piling and replacing the existing pump with a larger capacity pump.

This option would protect the community of Stephenville from future flooding by: 1) preventing flooding in the streets and residences from water flowing inverse in existing catch basins and outfalls when waterways rise; 2) inhibiting intrusion of water in the wastewater treatment system for the community when waterways rise; and 3) improving the performance and protect the existing pumping station located in the community by elevating and increasing pumping capacity.



Figure 4: Bayou Estates Subdivision, Stephenville, LA Plan View Overlaid on Aerial Location Map

#### 4.0 AFFECTED ENVIRONMENT AND POTENTIAL IMPACTS

The following resource was not discussed in this EA due to the limited impacts to the resource from the Proposed Action and alternative. Resource not addressed is as follows:

- Climate Change – the proposed drainage improvements within the Bayou Estates Subdivision/Stephenville community would not significantly adversely affect climate.

#### 4.1 Impact Summary

The following matrix summarizes the results of the environmental review process (Table 1). Potential environmental impacts that were found to be negligible are not evaluated further.

Resource areas that have the potential for impacts of minor, moderate, or major intensity are further developed in the subsequent sections. Definitions of impact intensity are described below:

**Negligible:** The resource area (e.g., geology) would either not be affected, changes would be non-detectable, or if detected, would have effects that would be slight and local. Impacts would be well below regulatory standards, as applicable. Effects to Cultural Resources would be non-existent, i.e., a building is less than 50 years old and/or no known archeological sites are present on the site, or the project is determined not likely to affect and State Historic Preservation Officer (SHPO)/Tribal Historic Preservation Officer (THPO) concurs. No mitigation is needed.

**Minor:** Changes to the resource would be measurable, although the changes would be small and localized. Impacts would be within or below regulatory standards, as applicable. Mitigation measures would reduce any potential adverse effects. Effects to Cultural Resources are not likely, i.e., building is at least 50 years old and/or known archeological sites are near the project area, but special conditions/mitigation are sufficient to maintain the “not likely to affect determination.”

**Moderate:** Changes to the resource would be measurable and have both localized and regional scale impacts. Impacts would be within or below regulatory standards, but historical conditions would be altered on a short-term basis. Mitigation measures would be necessary to reduce any potential adverse effects. Effects to Cultural Resources are likely, i.e., building is 50 years old and/or known archeological sites are in the project area. Impacts would have at least local and possibly regional scale impacts.

**Major:** Changes would be readily measurable and would have substantial consequences on a local and regional level. Impacts would exceed regulatory standards. Mitigation measures to offset the adverse effects would be required to reduce impacts, although long-term changes to the resource would be expected. Effects to Cultural Resources are likely, i.e., building is at least 50 years old and/or known archeological sites are in the project area. Impacts would have substantial consequences on a local and regional level.

Potential environmental impacts for Proposed Action: Combination of Basic Improvements and Protection up to Elevation +4.0 MSL were analyzed and summarized in the Affected Environment and Environmental Consequences Matrix Table below (Table 1). This alternative would not result in significant impacts. This is due to the project location being located in an urban area, with most of the area being pre-disturbed and previously developed

**Table 1: Affected Environment and Environmental Consequences Matrix: Preferred Action:  
Combination of Basic Improvements and Protection up to Elevation +4.0 MSL**

Resource Area	Impact Negligible	Impact Minor	Impact Moderate	Impact Major	Impact Summary	Agency Coordination / Permits	Conditions
Geology and Soils	X				<p>The Farmland Protection Policy Act (FPPA: Public Law 97-98, §§ 1539-1549; 7 U.S.C. 4201, <i>et seq.</i>) was enacted in 1981 and is intended to minimize the impact federal actions may have on the unnecessary and irreversible conversion of farmland to non-agricultural uses. It assures that, to the extent possible, federal programs and policies are administered to be compatible with state and local farmland protection policies and programs.</p> <p>Per review of the Natural Resources Conservation Services (NRCS) Web Soil Survey, the soil located on the proposed project area (Fausse association [FA]) is not classified as a prime farmland soil; Farmland Protection Policy Act is precluded. The proposed construction areas are within urban areas and therefore exempt from the rules and regulations of the FPPA.</p> <p>Potential for short-term localized increase in soil erosion during construction activities.</p>	<p>NRCS response letter dated 06/13/2011.</p> <p>See Appendix C External Agency Correspondence.</p>	<p>Implement construction Best Management Practices (BMPs); install silt fences/straw bales to reduce sedimentation. Area soils would be covered and/or wetted during construction.</p> <p>If fill is stored on site as part of unit installation or removal, the contractor would be required to appropriately cover it.</p> <p>Construction contractor would be required to obtain a Louisiana Pollutant Discharge Elimination System (LPDES) permit, if applicable, and implement stormwater pollution prevention plan.</p> <p>The LDEQ has stormwater general permits for construction areas equal to or greater than one (1) acre. It is recommended that the LDEQ Water Permit Division be contacted at (225) 219-3181 to determine whether the proposed improvements require one of these permits.</p> <p>All precaution should be observed to control nonpoint source pollution from construction activities.</p> <p>See also Section 6.0 Conditions and Mitigation Measures.</p>

Resource Area	Impact Negligible	Impact Minor	Impact Moderate	Impact Major	Impact Summary	Agency Coordination / Permits	Conditions
Hydrology and Floodplains (Executive Order 11988)		X			<p>Executive Order (EO) 11988 (Floodplain Management) requires Federal agencies to avoid direct or indirect support or development within the 100-year floodplain whenever there is a practicable alternative. FEMA's regulations for complying with EO 11988 are found at 44 CFR Part 9.</p> <p>Digital Flood Insurance Map (DFIRM) Panel 22099C0625D, dated 11/04/2010, places this project in Zone "AE" Base Flood Elevation (BFE) 6 feet NAVD 88.</p> <p>*NAVD 88 = North American Vertical Datum of 1988.</p> <p>See also Section 4.2 Hydrology and Floodplains.</p>	DFIRM Panel 22099C0625D, dated 11/04/2010.	<p>The applicant is required to coordinate with the local floodplain administrator regarding floodplain permit(s) prior to the start of any activities.</p> <p>New construction must be compliant with current codes and standards.</p> <p>As per 44 CFR 9.11 (d) (9), mitigation or minimization standards must be applied, where possible. The replacement of building contents, materials and equipment should be, where possible, wet or dry-proofed, elevated, or relocated to or above the DFIRM BFE or local floodplain ordinances, whichever is more stringent.</p> <p>All coordination pertaining to these activities and applicant compliance with any conditions should be documented and copies forwarded to the state and FEMA for inclusion in the permanent project files.</p> <p>See also Section 6.0 Conditions and Mitigation Measures.</p>
Wetlands (Executive Order 11990)	X				<p>EO 11990, Protection of Wetlands, directs Federal agencies to minimize the destruction, loss, or degradation of wetlands and to preserve and enhance the values of wetlands for federally funded projects. FEMA regulations for complying with EO 11990 are found at 44 CFR Part 9, Floodplain Management and Protection of Wetlands.</p> <p>U.S. Fish and Wildlife Service (USFWS)- National Wetlands Inventory map <a href="http://www.fws.gov/wetlands/Wetlands- Mapper.html">http://www.fws.gov/wetlands/Wetlands- Mapper.html</a> queried on 06/01/2015 shows there are mapped wetlands present in the proposed project area. Per correspondence from U.S. Environmental Protection Agency (USEPA), jurisdictional waters of the U.S. occur on the proposed site.</p>	<p>A SOV was prepared and sent out to the U.S. Army Corps of Engineers (USACE), on May 29, 2015. USACE did not respond within the 30-day regulatory timeframe. USEPA response dated 06/19/2015.</p> <p>See Appendix C External Agency Correspondence.</p>	<p>Applicant must coordinate with USACE prior to the start of construction to acquire any necessary permits or authorizations.</p> <p>Applicant must coordinate with USACE at the New Orleans District Office to verify if jurisdictional waters of the U.S. do occur on site and which permits, if any, are required.</p> <p>Any changes or modifications to the proposed project will require a revised determination. Off-site locations of activities such as borrow, disposals, haul- and detour roads, and work mobilization site developments may be subject to USACE regulatory requirements.</p> <p>See also Section 6.0 Conditions and Mitigation Measures.</p>

Resource Area	Impact Negligible	Impact Minor	Impact Moderate	Impact Major	Impact Summary	Agency Coordination / Permits	Conditions
Surface Water and Water Quality	X				<p>The USACE regulates the discharge of dredged or fill material into waters of the U.S., including wetlands, pursuant to §§ 401 and 404 of the Clean Water Act (CWA). Section 402 of the CWA, entitled National Pollutant Discharge Elimination System (NPDES), authorizes and sets forth standards for state administered permitting programs regulating the discharge of pollutants into navigable waters within the state's jurisdiction. The USACE also regulates the building of structures in waters of the U.S. pursuant to §§ 9 and 10 of the Rivers and Harbors Act (RHA).</p> <p>Potential for short-term localized increase in sedimentation during construction.</p>	<p>A SOV was prepared and sent out to the USACE on May 29, 2015. USACE did not respond within the 30-day regulatory timeframe. LDEQ response letter dated 06/25/15. See Appendix C External Agency Correspondence.</p>	<p>Applicant must coordinate with USACE prior to the start of construction to acquire any necessary permits or authorizations.</p> <p>The project results in a discharge to waters of the State; submittal of a Louisiana Pollutant Discharge Elimination System LPDES application is necessary.</p> <p>All precautions must be observed to control nonpoint source pollution from construction activities. LDEQ has stormwater general permits for construction areas equal to or greater than one (1) acre. The applicant must contact the LDEQ Water Permits Division at (225) 219-9371 to determine if the proposed project requires a permit. Additional information may be obtained on the LDEQ website at <a href="http://www.deq.louisiana.gov/portal/tabid/2296/Default.aspx">http://www.deq.louisiana.gov/portal/tabid/2296/Default.aspx</a> or by contacting the LDEQ Water Permits Division at (225) 219- 9371.</p> <p>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 must be taken to protect workers from these hazardous constituents. Erosion Control Devices (ECD's) must be used and maintained extensively to prevent any potential direct or indirect adverse impacts to nearby wetland areas per the CWA and EO 11990. Any adverse impacts to adjacent wetlands resulting from the construction of this project will jeopardize receipt of federal funding.</p> <p>See also Section 6.0 Conditions and Mitigation Measures.</p>

Resource Area	Impact Negligible	Impact Minor	Impact Moderate	Impact Major	Impact Summary	Agency Coordination / Permits	Conditions
Groundwater	X				<p>The Safe Drinking Water Act (SDWA) was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply.</p> <p>The project area does not overlay a sole source aquifer.</p> <p>Project as proposed is not expected to affect any groundwater.</p>	<p>USEPA response dated 06/19/2015.</p> <p>See Appendix C External Agency Correspondence.</p>	<p>All precautions must be observed to control nonpoint source pollution from construction activities. LDEQ has stormwater general permits for construction areas equal to or greater than one (1) acre. The applicant must contact the LDEQ Water Permits Division at (225) 219-3181 to determine if the proposed project requires a permit. Any water system improvements should be coordinated through the LDEQ Water Permits to determine if special water quality-based limitations will be necessary.</p> <p>All precautions should be observed to protect the groundwater of the region. All debris should be disposed of in an approved landfill.</p> <p>If any solid or hazardous waste materials, or soils and/or groundwater contaminated with hazardous constituents are encountered during the project, the LDEQ Single-Point-of-Contact will be contacted at (225) 219-3640 to initiate appropriate measures for the proper assessment, remediation, management and disposal of the contaminated material. Additionally, precautions should be taken to protect workers from these hazardous constituents.</p> <p>See also Section 6.0 Conditions and Mitigation Measures.</p>
Wild and Scenic River	X				<p>The Wild and Scenic Rivers Act (Act), (P. L. 90-543 as amended: 16 U.S.C. 1271-1287) established a method for providing federal protection for certain free-flowing rivers, preserving them and their immediate environments for the use and enjoyment of present and future generations.</p> <p>There are no Wild and Scenic Rivers in the vicinity.</p>	<p>National Wild and Scenic Rivers</p> <p><a href="http://www.rivers.gov/loisiana.php">http://www.rivers.gov/loisiana.php</a> queried May 29, 2015.</p>	

Resource Area	Impact Negligible	Impact Minor	Impact Moderate	Impact Major	Impact Summary	Agency Coordination / Permits	Conditions
Coastal Resources	X				<p>The Coastal Zone Management Act of 1972 (CZMA, or the Act) encourages the management of coastal zone areas and provides grants to be used in maintaining coastal zone areas. It is intended to ensure that federal activities are consistent with state programs for the protection and, where, possible, enhancement of the nation's coastal zones.</p> <p>The project is located in Lower St. Martin Parish which is within the coastal zone.</p> <p>The USFWS regulates federal funding in Coastal Barrier Resource System (CBRS) units under the Coastal Barrier Resources Act (CBRA). This Act protects undeveloped coastal barriers and related areas (<i>i.e.</i>, Otherwise Protected Areas [OPAs]) by prohibiting or limiting direct or indirect Federal funding of projects that support development in these areas. According to the Louisiana Department of Natural Resources (LDNR), the project site is located within the Louisiana Coastal Zone. The applicant submitted a CUP application on 03/17/2014. The project is not located within the CBRS.</p>	LDNR response letter received 06/10/2015. See Appendix C External Agency Correspondence.	The applicant shall comply with all conditions of the required CUP. All coordination pertaining to these activities and applicant compliance with any conditions should be documented and copies forwarded to the state and FEMA for inclusion in the permanent project files. See also Section 6.0 Conditions and Mitigation Measures.
Air Quality	X				<p>The Clean Air Act (CAA) requires the State of Louisiana to adopt ambient air quality standards to protect the public from potentially harmful amounts of pollutants. The LDEQ has designated areas meeting the state's ambient air quality standards by their monitoring and modeling program efforts. During construction, there is potential for a short-term localized increase in vehicle emissions and dust particles. St. Martin Parish is classified as attainment under the National Ambient Air Quality Standards (NAAS) and has no general conformity determination obligations.</p>	LDEQ response letter dated 06/25/2015. See Appendix C External Agency Correspondence.	Vehicle operation times would be kept to a minimum. Area soils must be covered and/or wetted during construction to minimize dust. See also Section 6.0 Conditions and Mitigation Measures.

Resource Area	Impact Negligible	Impact Minor	Impact Moderate	Impact Major	Impact Summary	Agency Coordination / Permits	Conditions
Vegetation and Wildlife	X				<p>The Fish and Wildlife Coordination Act (FWCA) provides the basic authority for the USFWS involvement in evaluating impacts to fish and wildlife from proposed water resource development projects. It requires that fish and wildlife resources receive equal consideration to other project features. It also requires Federal agencies that construct, license or permit water resource development projects to first consult with the Service (and the National Marine Fisheries Service in some instances) and State fish and wildlife agency regarding the impacts on fish and wildlife resources and measures to mitigate these impacts.</p> <p>The project is within and directly adjacent to canal waters and there would be no permanent impacts to vegetation and wildlife.</p>	LDWF response letter dated 06/18/15. See Appendix C External Agency Correspondence.	Extreme care must be taken during the construction process through the appropriate use and maintenance of BMP's. See also Section 6.0 Conditions and Mitigation Measures.
Threatened and Endangered Species (Endangered Species Act Section 7)	X				<p>The Endangered Species Act (ESA) of 1973 prohibits the taking of listed, threatened, and endangered species unless specifically authorized by permit from the USFWS or the National Marine Fisheries Service.</p> <p>No rare, threatened, or endangered species are present on the site. No impacts to rare, threatened, or endangered species or critical habitats are anticipated for the proposed project. No state or Federal parks, wildlife refuges, or wildlife management areas are known at the site.</p>	<p>As previously directed by USFWS, FEMA utilized the self-screening website <a href="http://www.fws.gov/lafayette">www.fws.gov/lafayette</a> to make a no effects determination, dated May 29, 2015.</p> <p>LDWF response letter dated 06/18/15. See Appendix C External Agency Correspondence.</p>	Any changes to the scope or location of the proposed project or if the project has not been initiated one year from the date of the solicitation of views (May 29, 2016), the applicant is responsible for coordinating with United States Fish and Wildlife Service. See also Section 6.0 Conditions and Mitigation Measures.

Resource Area	Impact Negligible	Impact Minor	Impact Moderate	Impact Major	Impact Summary	Agency Coordination / Permits	Conditions
Bald and Golden Eagle Protection Act of 1940 (Title 16 United States Code [USC] §§668-668c)	X				The bald eagle is protected under the Bald and Golden Eagle Protection Act, which prohibits anyone, without permission from the Secretary of the Interior, from "taking" bald eagles, including their parts, nests, or eggs. The Act provides criminal penalties for persons who "take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle ... [or any golden eagle], alive or dead, or any part, nest, or egg thereof." The Act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb." Bald eagles are known to occur in St. Martin Parish.	Internet Resource: USFWS Bald Eagle Management Guidelines and Conservation Measures – The Bald and Golden Eagle Protection Act	If a bald eagle or its nest is spotted within 1,500 feet of the project site during the months of October through mid-May, the applicant must cease construction activities and contact LDWF and USFWS immediately. All correspondence must be documented and remain in the project permanent files. See also Section 6.0 Conditions and Mitigation Measures.

Resource Area	Impact Negligible	Impact Minor	Impact Moderate	Impact Major	Impact Summary	Agency Coordination / Permits	Conditions
Cultural Resources (National Historic Preservation Act Section 106)	X				<p>FEMA has determined that that no previously recorded archaeological sites fell within the project area. Soils research does not indicate that the proposed location was favorable to pre-historic or historic occupation, nor does historic map research indicate any development occurring within the vicinity of the project area prior to the 1970s. Soil Cores were completed within the Area of Potential Effects (APE) on May 1, 2015: Based the FEMA historic map research, discussions with residents, and soil cores, the APE appears to be comprised of created land, with only very minimal potential for archaeological deposits. No standing structures over 45 years of age were identified within the APE.</p> <p>A review of this alternative was conducted in accordance with FEMA’s 2011 LA HMGP Programmatic Agreement (PA) dated January 31st, 2011. FEMA determined that there are no historic properties as defined in 36 CFR 800.16(1) within the APE which includes the entire Bayou Estates Subdivision. Therefore, FEMA has determined a finding of No Historic Properties Affected for this Undertaking (i.e., No Impact to Cultural Resources). Consultation with the affected Tribes was conducted per 36 CFR §800.2(c) (2)(i)(B).</p> <p>The applicant must comply with the National Historic Preservation Act (NHPA) conditions set forth in this EA.</p>	<p>FEMA submitted a finding of No Historic Properties Affected to the Louisiana State Historic Preservation Office and the affected tribes, (Alabama-Coushatta Tribe of Texas [ACTT], Choctaw Nation of Oklahoma [CNO], Coushatta Tribe of Louisiana [CT], Jena Band of Choctaw Indians [JBCI], Mississippi Band of Choctaw Indians [MBCI], and the Tunica-Biloxi Tribe of Louisiana [TBTL]) per FEMA’s Programmatic Agreement dated January 31st, 2011. The consultation letter was submitted on May 18, 2015 for a 30-day consultation period. The Louisiana SHPO concurred with FEMA’s determination of effect on May 26, 2015, but no responses have been received from the affected Tribes to date. FEMA anticipates concurrence from all affected tribes. See Appendix C External Agency Correspondence.</p>	<p><b>Unexpected Discovery and Stop Work:</b> If during the course of work, archaeological artifacts (prehistoric or historic) are discovered, the applicant shall stop work in the vicinity of the discovery and take all reasonable measures to avoid or minimize harm to the finds. The applicant shall inform their Public Assistance (PA) contacts at FEMA, who will in turn contact FEMA Historic Preservation (HP) staff. The applicant will not proceed with work until FEMA HP completes consultation with the SHPO, and others as appropriate.</p> <p><b>Unmarked Human Burials Discovery</b> If human bone or unmarked grave(s) are present within the project area, compliance with the Louisiana Unmarked Human Burial Sites Preservation Act (R.S. 8:671 et seq.) is required. The applicant shall notify the law enforcement agency of the jurisdiction where the remains are located within twenty-four hours of the discovery. The applicant shall also notify FEMA and the Louisiana Division of Archaeology at 225-342-8170 within seventy-two hours of the discovery. See also Section 6.0 Conditions and Mitigation Measures.</p> <p><b>Barrow Condition:</b> Any fill or borrow material used must be sourced from areas that do not contain any buried cultural materials (e.g. brick foundations, prehistoric Indian artifacts, human burials, and the like).</p>

Resource Area	Impact Negligible	Impact Minor	Impact Moderate	Impact Major	Impact Summary	Agency Coordination / Permits	Conditions
Environmental Justice Executive Order (EO 12898) Socioeconomics	X				<p>EO 12898, entitled “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,” was signed on February 11, 1994. The EO directs federal agencies to make achieving environmental justice part of their missions by identifying and addressing, as appropriate, disproportionately high adverse human health, environmental, economic, and social effects of its programs, policies and activities on minority or low-income populations.</p> <p>According to the 2010 U.S. Census Demographic Profile of Morgan City, LA: the total population is 22,928 with 23.6% Black, 67.3% White, and 7.8% Hispanic. The median household income is \$40,423 and 21.3% of the population is below poverty level. The proposed project would reduce flooding, thus providing a benefit to all populations.</p>	U.S. Census Bureau, American Fact Finder, Data for Morgan City, Louisiana accessed May 2015.	
Resource Recovery and Conservation Act (RCRA)	X				<p>The objectives of the RCRA are to protect human health and the environment from the potential hazards of waste disposal, to conserve energy and natural resources, to reduce the amount of waste generated, and to ensure that wastes are managed in an environmentally sound manner. RCRA regulates the management of solid waste (e.g., garbage), hazardous waste, and underground storage tanks holding petroleum products or certain chemicals.</p> <p>Project involves excavation of soil and existing culvert and/or piping. All debris would be disposed of at a permitted landfill.</p>	LDEQ response letter dated 06/25/15. See Appendix C External Agency Correspondence.	If any solid or hazardous wastes, or soils and/or groundwater contaminated with hazardous constituents are encountered during the project, notification to LDEQ’s SPOC at (225) 219-3640 is required. Additionally, precautions should be taken to protect workers from these hazardous constituents. 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/or toxic waste in accordance to the requirements and to the satisfaction of the governing local, state and federal agencies. Applicant is responsible for acquiring LDEQ permits for the temporary debris staging and reduction sites (TDSRS) associated with this project prior to project closeout. Failure to provide FEMA with LDEQ approval may jeopardize project funding eligibility. See also Section 6.0 Conditions and Mitigation Measures.

Resource Area	Impact Negligible	Impact Minor	Impact Moderate	Impact Major	Impact Summary	Agency Coordination / Permits	Conditions
Noise	X				Noise is commonly defined as unwanted or unwelcome sound, and most commonly measured in decibels (dB) on the A-weighted scale, which is the scale most similar to the range of sounds that the human ear can hear. Sound is federally regulated by the Noise Control Act of 1972, which charges the EPA with preparing guidelines for acceptable ambient noise levels. EPA guidelines, and those of many other federal agencies, state that outdoor sound levels in excess of 55 dB day-night average sound level are “normally unacceptable” for noise-sensitive land uses including residences, schools, or hospitals. During the construction period there would be a short-term increase in noise levels.	St Martin Parish Noise Ordinance, Article II, Noise, Section 26-34.	St. Martin Parish limits noise levels by receiving land use in residential, public, commercial, and industrial areas to decibel levels of 60 during the “daytime” hours of 7 AM to 10 PM. Construction activities should be limited to this schedule on weekdays. Mitigation and abatement measures will be required to reduce the noise levels to a range that would be considered acceptable. See also Conditions Section 6.0.
Public Safety and Access	X				Congress passed the Occupational and Safety Health Act to ensure worker and workplace safety. The goal was to make sure employers provide their workers a place of employment free from recognized hazards to safety and health, such as exposure to toxic chemicals, excessive noise levels, mechanical dangers, heat or cold stress, or unsanitary conditions. During construction heavy equipment would be located in a populated area. Impacts to public safety and security would be minimized with mitigation measures, including following Occupational Safety and Health Administration (OSHA) regulations.		The contractor must place fencing around the work area perimeters to protect nearby residents from vehicular traffic. To minimize worker and public health and safety risks from project construction and closure, all construction and closure work must be done using qualified personnel trained in the proper use of construction equipment, including all appropriate safety precautions. Additionally, all activities must be conducted in a safe manner in accordance with the standards specified in OSHA regulations and the USACE safety manual. The contractor must post appropriate signage and fencing to minimize potential adverse public safety concerns. See also Section 6.0 Conditions and Mitigation Measures.
Traffic and Transportation	X				Traffic volumes near the respective work access areas would increase temporarily during work activities.		Appropriate signage and barriers should be in place prior to construction activities in order to alert pedestrians and motorists of project activities and traffic pattern changes. The contractor should implement traffic control measures, as necessary. See also Section 6.0 Conditions and Mitigation Measures.

Resource Area	Impact Negligible	Impact Minor	Impact Moderate	Impact Major	Impact Summary	Agency Coordination / Permits	Conditions
Hazardous Materials and Toxic Wastes	X				The management of hazardous materials is regulated under various federal and state environmental and transportation laws and regulations, including the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); the Toxic Substances Control Act of 1976 (TSCA); the Emergency Planning and Community Right-to-Know Act; the Hazardous Materials Transportation Act; and the Louisiana Voluntary Investigation and Remedial Action statute. The purpose of the regulatory requirements set forth under these laws is to ensure the protection of human health and the environment through proper management (identification, use, storage, treatment, transport, and disposal) of these materials. Some of these laws provide for the investigation and cleanup of sites already contaminated by releases of hazardous materials, wastes, or substances. Per NEPAassist database search, there are no Louisiana State Brownfield sites located within 0.5 miles of the site. No Superfund or Toxic Release Inventory sites were listed.	LDEQ response letter dated 06/25/15. See Appendix C External Agency Correspondence. NEPAassist-USEPA website <a href="http://nepassisttool.epa.gov/nepassist/entry.aspx">http://nepassisttool.epa.gov/nepassist/entry.aspx</a> referenced May 31, 2015.	Appropriate signage and barriers should be in place prior to construction activities in order to alert pedestrians and motorists of project activities and traffic pattern changes. The contractor should implement traffic control measures, as necessary. If hazardous materials are unexpectedly encountered in the project area during the proposed construction operations, appropriate measures for the proper assessment, remediation, management and disposal of the contamination would be initiated in accordance with applicable federal, state, and local regulations. The contractor would be required to take appropriate measures to prevent, minimize, and control the spill of hazardous materials in the construction area. 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. The LDNR Office of Conservation should be contacted at (225) 342-5540 if any unregistered wells of any type are encountered during construction work. For pipelines and other underground hazards, Louisiana One Call should be contacted at 800-272-3020 prior to commencing operations. See also Section 6.0 Conditions and Mitigation Measures.

## 4.2 Hydrology and Floodplains

The applicant's consultant, PEEC, studied the current hydrology of the existing conditions. The proposed improvements for the Stephenville project consist of improvements to the performance and protection of the existing pump station by elevating and increasing pumping capacity. The discharge point from this new elevated pump station is Bayou Milhomme. Bayou Milhomme is a larger water body compared to the canals within the study area. Discharging flow to a larger water body would have negligible impacts. Based on the Hydrology and Hydraulics Study (H &H) prepared by PEEC, dated June 2013, the proposed Improvements will not have any adverse effect on the area and the surrounding environment.

The USACE regulates the discharge of dredged or fill material into waters of the U.S., including wetlands, pursuant to Section 404 of the CWA. USACE also regulates the building of any structures in waters of the U.S. pursuant to Section 10 of the RHA. There are no wild and scenic rivers, as designated under the Wild and Scenic Rivers Act (WSRA), in or near the property.

Jurisdictional wetlands are defined as those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. The property contains Freshwater Forested/Shrub wetlands to the south, east, and north of the property. Jurisdictional wetland determinations are regulated by the USACE pursuant to the CWA. In addition, Executive Order 11990, Protection of Wetlands, directs federal agencies to take actions to minimize the destruction, loss, or degradation of wetlands.

**No Action Alternative:** The No Action alternative would have no effect on wetlands or other waters of the U.S. and would not require permits regulated under Sections 401 or 404 of the CWA, or Section 10 regulated under the RHA.

**Proposed Action:** During construction there is the potential to impact surface waters through minor erosion and runoff. Storm water runoff could carry sediment offsite into the receiving streams or bodies of water. In order to minimize impacts to waters of the U.S., the contractor is required to implement Best Management Practices (BMPs) that meet the LDEQ's permitting specifications for storm water discharge regulated under Section 402 of the CWA. This includes designing the site with specific construction measures to reduce or eliminate run-off impacts. Any adverse effects to water quality associated with the construction of the projects would be short term and minimized by the measures described above. There would be no long-term effects to water quality because once structures are in place, natural vegetation would reemerge.

FEMA initiated consultation with the USACE on May 29, 2015 regarding potential impacts to waters of the U.S., including wetlands. The response period ends on June 29, 2015, at which time FEMA-EHP will update this EA to reflect comments and conditions

received by the regulatory agency. The applicant is required to coordinate with USACE prior to any construction related activities to acquire any permits or authorizations.

Any changes or modifications to the proposed project will require a revised determination. Other off-site locations of activities such as borrow, disposals, haul-and detour-roads, and work mobilization site developments may be subject to the Department of the Army regulatory requirements and may impact a Department of Army project.

Executive Order (EO) 11988 (Floodplain Management) requires federal agencies to avoid direct or indirect support of development within the 100-year floodplain whenever there is a practicable alternative. A floodplain is defined as the lowland and relatively flat areas adjoining inland and coastal waters, including food-prone areas of off-shore islands, and including at a minimum that area subject to a 1 percent or greater chance of flooding in any given year. FEMA complies with EO 11988 through 44 CFR Part 9, Floodplain Management and Protection of Wetlands. FEMA uses flood insurance rate maps (FIRM) created by the National Flood Insurance program (NFIP). Digital versions of these maps are called DFIRMS. According to the FEMA DFIRM Panel 22099C0625D, dated 11/04/2010, the project area lies within zone AE (EL 6), the 100-year floodplain with Base Flood Elevation (BFE) determined. A copy of the applicable DFIRM has been included in Appendix E.

Per EO 11988, federal agencies proposing activities in a 100-year floodplain must consider alternatives to avoid adverse effects and incompatible development in the floodplain. If no practicable alternative exists to implementing an action in the floodplain, the action must be designed to minimize potential harm to or within the floodplain. A notice must be publically circulated explaining the action and the reasons for implementing an action in a floodplain. When evaluating actions in the floodplain, FEMA utilizes the decision process described in 44 CFR Part 9, referred to as the 8-Step Process. The 8-Step Process ensures that the action is consistent with EO 11988.

**No Action Alternative:** Moderate ongoing impacts to floodplains are anticipated under the No Action Alternative due to localized flooding in an urban residential area and erosional forces and potential contaminants.

**Proposed Action:** Hydraulic calculations for this action are provided in Appendix D and preliminary plans for this action are provided in Appendix B of the report. An H&H study was conducted and it was determined that no adverse impacts would occur upstream or downstream as a result of the project (PEEC 2013). Per e-mail correspondence from Mohammad R. Saleh, P.E., of PEEC, dated March 11, 2015, the placement of the sheet pile wall and the drainage pump station would not have any effect on the upstream or downstream areas (Appendix E). The proposed sheet pile wall is designed to an elevation of +6.0 NAVD 88 with the level of protection throughout the area being an elevation of +4.01 NAVD 88. In addition, the final elevation of the pump would be +6.0 NAVD 88, which is also the BFE. According to the H&H study, the proposed action would prevent the water from entering the sewer system and houses.

The new drainage pump station would be designed to handle the 25-year rainfall intensity in the area when the proposed flood gate is closed. The proposed flood gate would be operated manually and closed upon notification by the USACE or the Emergency Operations Center (EOC) if the area would be under a flood condition due to the flood level rising at the Mississippi River by opening the gates of the Mississippi River in Baton Rouge, Louisiana. This condition would possibly last from two (2) weeks to several months. During this period the proposed flood gate would be manually closed and the area would be under the forced pumping system.

In accordance with EO 11988 (Floodplain Management) and EO 11990 (Wetland Protection), an 8 Step-Process assessment was prepared by FEMA to evaluate the impacts related to the construction of the Proposed Action within the 100-year floodplain (Appendix E). The 8-Step Process reviewed practicable alternatives, identified direct and indirect impacts, minimization and mitigation of impacts, and provided an evaluation of the Proposed Action's location within the floodplain. Based on the 8-Step Process evaluation, FEMA has determined that no other practicable alternative outside the floodplain to the Proposed Action that would meet the purpose and need of the project.

No significant direct impact would occur to floodplains under the Proposed Action; however, indirect short-term impacts to the surrounding area could occur during construction. Construction BMPs will be included into the daily construction activities. Other conditions found in Section 6.0 Conditions intended to protect floodplains and hydrology is as follows:

The project area must be kept cleared so as not to interfere with floodplain functions.

Per 44 CFR 9.11(d)(6), no project should be built to a floodplain management standard that is less protective than what the community has adopted in local ordinances through their participation in the National Flood Insurance Program.

New construction must be compliant with current codes and standards.

The applicant is required to coordinate with the local floodplain administrator regarding floodplain permit(s) prior to the start of any activities. All correspondence must be submitted to FEMA and FEMA-EHP for inclusion in the project files. Should the site plans (including drainage design) change the applicant must submit changes to FEMA-EHP for review and approval prior to the start of construction.

In addition, the construction contractor must contact the LDEQ to determine if a LPDES permit is required, and if applicable implement a stormwater pollution prevention plan (SWPPP). The construction contractor would therefore be required to follow all stipulations in the LPDES permit and all applicable BMPs noted in the permit. Nonpoint source pollution must be controlled during all construction activities. BMPs outlined in the plan would reduce the potential of soils, oil and grease, and construction debris to enter into local watersheds including floodplains.

## 5.0 CUMULATIVE IMPACTS

The CEQ's regulations state that cumulative impacts represent the "impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (Federal or non-Federal) or person undertakes such other actions." Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 C.F.R. § 1508.7).

In its comprehensive guidance on cumulative impacts analysis under NEPA, the CEQ notes that: "[t]he range of actions that must be considered includes not only the project proposal, but all connected and similar actions that could contribute to cumulative effects" (CEQ, 1997). The term "similar actions" may be defined as "reasonably foreseeable or proposed agency actions [with] similarities that provide a basis for evaluating the environmental consequences together, such as common timing or geography" (40 C.F.R. § 1508.25[a][3]; see also 40 C.F.R. §§ 1508.25[a][2] and [c]).

Not all potential issues identified during cumulative effects scoping need be included in an EA. Because some effects may be irrelevant or inconsequential to decisions about the proposed action and the alternative, the focus of the cumulative effects analysis should be narrowed to important issues of national, regional, or local significance. To assist agencies in this narrowing process, CEQ lists seven (7) basic questions, including: (1) is the proposed action one of several similar past, present, or future actions in the same geographic area; (2) do other activities (governmental or private) in the region have environmental effects similar to those of the proposed action; (3) have any recent or ongoing NEPA analyses of similar actions or nearby actions identified important adverse or beneficial cumulative effect issues; and, (4) has the impact been historically significant, such that the importance of the resource is defined by past loss, past gain, or investments to restore resources (CEQ, 1997).

It is normally insufficient when analyzing the contribution of a proposed action to cumulative effects to merely analyze effects within the immediate area of the proposed action (CEQ, 1997, pg. 12). Geographic boundaries should be expanded for cumulative effects analysis, and conducted on the scale of human communities, landscapes, watersheds, or airsheds. Temporal frames should be extended to encompass additional effects on the resources, ecosystems, and human communities of concern. A useful concept in determining appropriate geographic boundaries for a cumulative effects analysis is the project impact zone; that is, the area (and resources within that area) that could be affected by the proposed action. The area appropriate for analysis of cumulative effects will, in most instances, be a larger geographic area occupied by resources outside of the project impact zone.

The proposed project site is located at Latitude 29.7641, Longitude -91.1735, within the Bayou Estates subdivision, starting at the existing pumping station on Stephenville

Road, and includes the entire Bayou Estates Subdivision, which is approximately 113 acres in size and includes approximately 250 residences. The project boundary is defined by Highway 70 to the east, Bayou Milhomme to the west and south, and dense, cypress swamp to the north. FEMA has determined that the area within the 113 acres constitutes an appropriate project impact zone, and the larger geographic area consisting of the 70380 zip code constitutes an appropriate boundary for a cumulative impact analysis of the proposed action and the alternative.

In accordance with NEPA, and to the extent reasonable and practicable, this EA considered the combined effects of the Proposed Action Alternative, as well as other actions undertaken by FEMA and other public and private entities that also affect environmental resources the proposed action would affect, and that occur within the considered geographic area and temporal frame(s).

Specifically, a range of past, present, and reasonably foreseeable actions undertaken by FEMA within the designated geographic boundary area were reviewed: (1) for similarities such as scope of work, common timing, and geography; (2) to determine environmental effects similar to those of the proposed action, if any; and (3) to identify the potential for cumulative impacts. As part of the cumulative effects analysis, FEMA also reviewed known past, present, and reasonably foreseeable projects of Federal resource agencies and other parties within the designated geographic boundary. These reviews were performed in order to assess past proposed actions, as well as the effects of completed and ongoing actions in order to determine whether the incremental impacts of the current proposed action, when combined with the effects of other past, present, and reasonably foreseeable future projects, are cumulatively considerable or significant.

From August 2005 continuing to June 2015, within the 70380 geographic area, numerous Public Assistance and HMGP program funded, and numerous non-FEMA funded, debris removal, protective measures, mitigation, and repair projects have occurred, are occurring, or are reasonably foreseen to occur (developed with enough specificity to provide useful information to a decision maker and the interested public) to buildings, roads and bridges, recreational and educational facilities, public utilities, waterways, and more. All FEMA funded actions are subject to various levels of environmental review as a requirement for the receipt of Federal funding. An applicant's failure to comply with any required environmental permitting or other condition is a serious violation which can result in the loss of Federal assistance, including funding.

FEMA has determined that the incremental effects of the other infrastructure recovery and improvement actions are likely to be similar to the impacts and effects this EA previously described for the present proposed action, in that the effects to socioeconomic resources are expected to be beneficial, and effects to other resources expected to be either non-existent or minimal and temporary. FEMA has further determined that the incremental impact of the present proposed project, when combined with the effects of other past, present, and reasonably foreseeable future projects, is neither cumulatively considerable nor significant.

These infrastructure actions, some of which have already occurred, and many of which will occur concurrent with and/or subsequent to the proposed action, are necessary as a result of the unprecedented devastation caused by the 2005 hurricanes, both Katrina and Rita, in order to restore pre-disaster conditions. In reviewing impacts, socioeconomic resources were identified as having the most potential to experience cumulative effects. Although devastating, the 2005 storms created an opportunity for the applicant to serve residents in the Greater New Orleans area and surrounding neighborhoods by enhancing housing facilities, thus attracting more residents to return home. Considered in relation to past, present, and reasonably foreseeable future actions, the cumulative impact of the proposed action to the built and natural environment would be minimal, would be beneficial rather than detrimental, and is not expected to contribute to any adverse effects or to otherwise significantly affect the human environment.

## **6.0 CONDITIONS AND MITIGATION MEASURES**

- Implement construction Best Management Practices (BMPs); install silt fences/straw bales to reduce downslope sedimentation. Area soils must be covered and/or wetted during construction.
- If fill is stored on site as part of unit installation or removal, the contractor is required to appropriately cover it.
- Construction contractor is required to obtain applicable Louisiana Pollutant Discharge Elimination System (LPDES) permit, and implement stormwater pollution prevention plan.
- The applicant is required to coordinate with the local floodplain administrator regarding floodplain permit(s) prior to the start of any activities.
- New construction must be compliant with current codes and standards.
- As per 44 CFR 9.11 (d) (9), mitigation or minimization standards must be applied, where possible. The replacement of building contents, materials and equipment should be, where possible, wet or dry-proofed, elevated, or relocated to or above the DFIRM BFE or local floodplain ordinances, whichever is more stringent.
- All coordination pertaining to these activities and applicant compliance with any conditions should be documented and copies forwarded to the state and FEMA for inclusion in the permanent project files.
- Any changes or modifications to the proposed project will require a revised determination. Off-site locations of activities such as borrow, disposals, haul- and

detour roads, and work mobilization site developments may be subject to USACE regulatory requirements.

- Applicant must coordinate with USACE prior to the start of construction to acquire any necessary permits or authorizations.
- Applicant must coordinate with USACE at the New Orleans District Office to verify if jurisdictional waters of the U.S. do occur on site and which permits, if any, are required.
- The project results in a discharge to waters of the State; submittal of a Louisiana Pollutant Discharge Elimination System LPDES application is necessary.
- All precautions must be observed to control nonpoint source pollution from construction activities. LDEQ has stormwater general permits for construction areas equal to or greater than one (1) acre. The applicant must contact the LDEQ Water Permits Division at (225) 219-9371 to determine if the proposed project requires a permit.
- Erosion Control Devices (ECD's) must be used and maintained extensively to prevent any potential direct or indirect adverse impacts to nearby wetland areas per the CWA and EO 11990. Any adverse impacts to adjacent wetlands resulting from the construction of this project will jeopardize receipt of federal funding.
- Any water system improvements should be coordinated through the LDEQ Water Permits to determine if special water quality-based limitations will be necessary.
- 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 must be taken to protect workers from these hazardous constituents.
- The contractor must observe all precautions to protect the groundwater of the region.
- All debris should be disposed of in an approved landfill.
- The applicant is responsible for coordinating with and obtaining any required permit(s) from the LDNR Coastal Management Division prior to initiating work. The applicant shall comply with all conditions of the required permit. All coordination pertaining to these activities and applicant compliance with any conditions should be documented and copies forwarded to the state and FEMA for inclusion in the permanent project files.

- Vehicle operation times would be kept to a minimum. Area soils must be covered and/or wetted during construction to minimize dust.
- Any changes to the scope or location of the proposed project or if the project has not been initiated one (1) year from the date of the solicitation of views (May 29, 2016), the applicant is responsible for coordinating with United States Fish and Wildlife Service.
- If a bald eagle or its nest is spotted within 1,500 feet of the project site during the months of October through mid-May, the applicant must cease construction activities and contact LDWF and USFWS immediately. All correspondence must be documented and remain in the project permanent files.
- If during the course of work, archaeological artifacts (prehistoric or historic) are discovered, the applicant shall stop work in the vicinity of the discovery and take all reasonable measures to avoid or minimize harm to the finds. The applicant shall inform their Public Assistance (PA) contacts at FEMA, who will in turn contact FEMA Historic Preservation (HP) staff. The applicant will not proceed with work until FEMA HP completes consultation with the SHPO, and others as appropriate.
- If human bone or unmarked grave(s) are present within the project area, compliance with the Louisiana Unmarked Human Burial Sites Preservation Act (R.S. 8:671 et seq.) is required. The applicant shall notify the law enforcement agency of the jurisdiction where the remains are located within twenty-four hours of the discovery. The applicant shall also notify FEMA and the Louisiana Division of Archaeology at 225-342-8170 within seventy-two hours of the discovery. See also Section 6.0 Conditions and Mitigation Measures.
- Any fill or borrow material used must be sourced from areas that do not contain any buried cultural materials (e.g. brick foundations, prehistoric Indian artifacts, human burials, and the like).
- 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/or toxic waste in accordance to the requirements and to the satisfaction of the governing local, state and federal agencies. Applicant is responsible for acquiring LDEQ permits for the temporary debris staging and reduction sites (TDSRS) associated with this project prior to project closeout. Failure to provide FEMA with LDEQ approval may jeopardize project funding eligibility.

- St. Martin Parish limits noise levels by receiving land use in residential, public, commercial, and industrial areas to decibel levels of 60 during the “daytime” hours of 7 AM to 10 PM. Construction activities should be limited to this schedule on weekdays. Mitigation and abatement measures will be required to reduce the noise levels to a range that would be considered acceptable.
- To minimize worker and public health and safety risks from project construction and closure, all construction and closure work must be done using qualified personnel trained in the proper use of construction equipment, including all appropriate safety precautions. Additionally, all activities must be conducted in a safe manner in accordance with the standards specified in OSHA regulations and the USACE safety manual.
- The contractor must post appropriate signage and fencing to minimize potential adverse public safety concerns, and to protect nearby residents from vehicular traffic.
- Appropriate signage and barriers should be in place prior to construction activities in order to alert pedestrians and motorists of project activities and traffic pattern changes.
- The contractor should implement traffic control measures, as necessary.
- If hazardous materials are unexpectedly encountered in the project area during the proposed construction operations, appropriate measures for the proper assessment, remediation, management and disposal of the contamination would be initiated in accordance with applicable federal, state, and local regulations. The contractor would be required to take appropriate measures to prevent, minimize, and control the spill of hazardous materials in the construction area.
- The LDNR Office of Conservation should be contacted at (225) 342-5540 if any unregistered wells of any type are encountered during construction work.
- For pipelines and other underground hazards, Louisiana One Call should be contacted at 800-272-3020 prior to commencing operations.

Failure to comply with these conditions may make part or all of these projects ineligible for FEMA funding.

## **7.0 AGENCY COORDINATION AND PUBLIC INVOLVEMENT**

### **7.1 Agency Coordination**

As part of the development of this EA, federal, state and local agencies were contacted. All initial Solicitation of Views letters and the respective responses from these agencies are included in Appendix C External Agency Correspondence.

The following agencies were contacted and asked to review the proposed project and include federal, state and local agencies as listed below:

#### Federal

- U.S. Environmental Protection Agency (EPA)
- U.S. Army Corps of Engineers (USACE)
- U.S. Fish and Wildlife (USFWS)

#### State

- State Historic Preservation Officer (SHPO)
- Louisiana Department of Wildlife and Fisheries (LDWF)
- Louisiana Department of Environmental Quality (LDEQ)
- Louisiana Department of Natural Resources (LDNR)

## **7.2 Public Involvement**

The Draft EA has been made available for public review and comment for a period of 30 days. Per FEMA requirements, a public notice will be published in The Times-Picayune, on Wednesday, June 10, 2015; Friday, June 12, 2015; and Sunday, June 14, 2015. This public notice will also run in The Teche News on Wednesday, June 10, 2015 and Wednesday, June 17, 2015 to alert the public that the Draft EA is available for review. There will be a 15 day comment period beginning on June 10, 2015 and concluding on June 25, 2015 at 4 p.m.

Additionally, the Environmental Assessment was made available at the Morgan City Public Library. The Environmental Assessment was published on FEMA's website. A copy of the Public Notice is attached in Appendix E.

Once the public comment period for the Draft EA is completed, comments will be addressed and incorporated into the Final EA as an appendix. Copies of proofs of publication will also be included in this appendix. If no comments are received, revisions to finalize the EA include updating the date of the Final EA and updating the Public Involvement section of the EA.

## **8.0 CONCLUSION**

Construction of the proposed improvements at the proposed location was analyzed based on the studies, consultations, and reviews undertaken as reported in this draft EA. The findings of this EA conclude that the proposed action at the proposed site would result in no significant adverse impacts to geology, groundwater, floodplains, public health and

safety, hazardous materials, socioeconomic resources, environmental justice, or cultural resources are anticipated under the Proposed Action Alternative.

During project construction, short-term impacts to soils, surface water, transportation, air quality, and noise are anticipated and conditions have been incorporated to mitigate and minimize the effects. Project short-term adverse impacts would be mitigated using BMPs, such as silt fences, proper vehicle and equipment maintenance, and appropriate signage. No long-term adverse impacts are anticipated from the proposed project. Therefore, FEMA presently finds the proposed action meets the requirements for a Finding of No Significant Impacts (FONSI) under NEPA and the preparation of an EIS will not be required. If new information is received that indicates there may be significant adverse effects, then FEMA would revise the findings and issue a second public notice, for additional comments. However, if there are no changes, this Draft EA will become the Final EA.

## 9.0 REFERENCES

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## **10.0 LIST OF PREPARERS**

Tiffany Spann-Winfield, Deputy Environmental Liaison Officer  
Jamie Schexnayder, Environmental Protection Specialist  
Joan Gillard, Historic Preservation Specialist  
LeSchina Holmes, Lead Environmental Specialist  
Melanie Pitts, Lead Environmental Specialist

**APPENDIX A**  
**SITE PHOTOS**

**Photo 1. Site of existing pump station to be elevated with two (2) new pumps to increase pump capacity – located at the entrance of Bayou Estates Subdivision on Stephenville Road. Latitude 29.7641, Longitude -91.1735**



**Photo 2. Site of existing ditch proposed to be deepened and widened to increase water flow  
– located on Dawn Drive. Latitude 29.76483, Longitude -91.172977**



**Photos 3 and 4. Proposed site location of the 30' roller floodgate – located near Florence Court. Latitude 29.77219, Longitude -91.171619**



**Photo 5. Proposed site location of sheet pile to run along tree area.  
Latitude 29.768213, Longitude -91.169041**



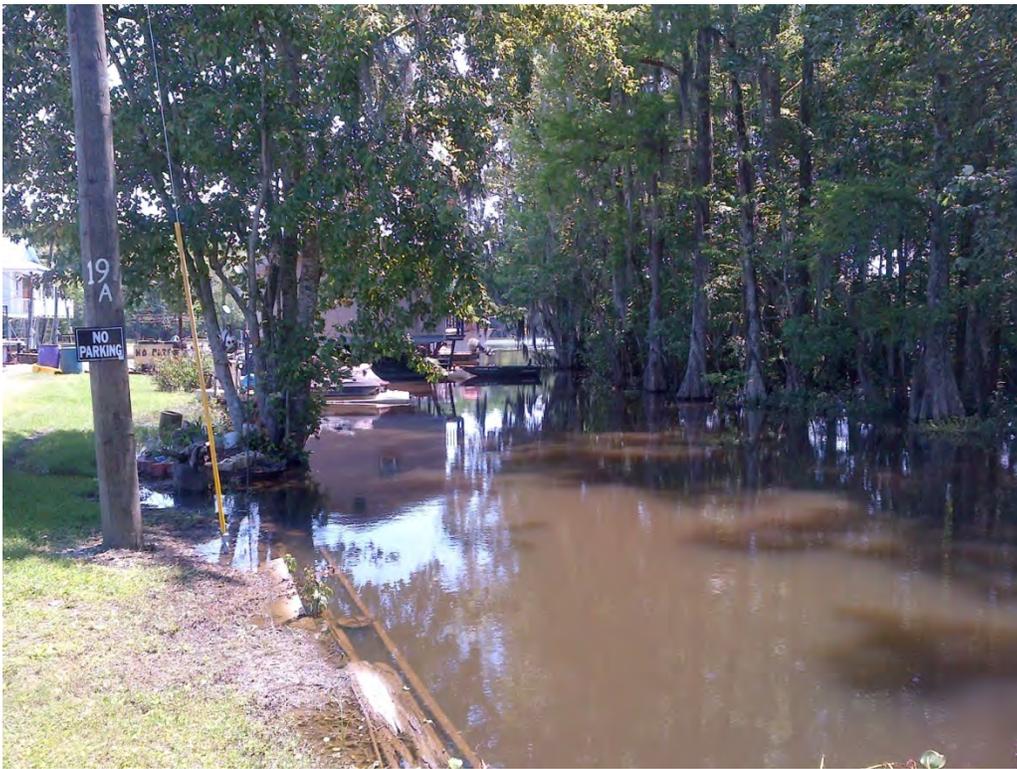
**Photo 6. Proposed site location of new pump station with a 48" force main and discharge pipe. Latitude 29.769372, Longitude --91.1681777**



**Photo 7. Proposed site location of drainage pipeline to run from proposed new pump station through the existing wetland and under the existing road to the other side of Stephenville Road.**



**Photos 8 and 9. Proposed site location of discharge pipe from Stephenville Road.**



**Photo 10. Proposed site location of discharge outlet into Bayou Milhomme.  
Latitude 29.768680, Longitude --91.172897**



**Photo 11. Proposed site location where existing drainage pipes and catch basins would be replaced.**



**Photo 12. Proposed site location of 4' earthen.**



**APPENDIX B**  
**SITE PLAN DRAWINGS**  
**FOR PREFERRED ALTERNATIVE**

**BAYOU ESTATE SUBDIVISION  
 STORM SURGE PROTECTION PROJECT  
 ST MARTIN PARISH, LOUISIANA  
 STATE PROJECT NUMBER - 1603-099-0004  
 FEMA PROJECT NUMBER - 213**

STEPHENSVILLE (BAYOU ESTATE)  
 PROJECT SITE

**ST MARTIN PARISH GOVERNMENT**

GUY CORMIER, PARISH PRESIDENT  
 LACI LAPEROUSE, CLERK OF THE COUNCIL  
 CHESTER CEDARS, LEGAL ADVISOR  
 CARROLL DELAHOUSSUYE, FIRST DISTRICT  
 LISA NELSON, SECOND DISTRICT  
 JASON WILLIS, THIRD DISTRICT  
 NEIL THIBODEAUX, FOURTH DISTRICT  
 CLAY COURVILLE, FIFTH DISTRICT  
 JILL HEBERT, SIXTH DISTRICT  
 CRAIG GREGORY, SEVENTH DISTRICT  
 MEKO ROBIN, EIGHTH DISTRICT  
 DEAN DORE', NINTH DISTRICT

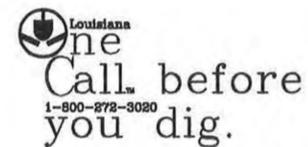
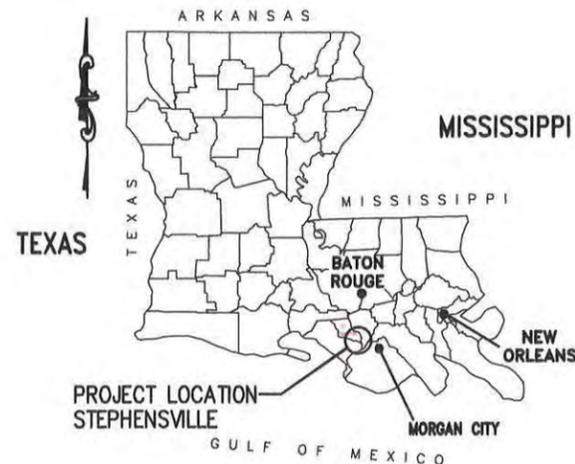


**INDEX TO SHEETS**

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
1	COVER SHEET
2	AERIAL VIEW & VICINITY MAP
3	SITE MAP WITH OVERALL PROJECT INFORMATION
4	PROJECT LAYOUT
5	PROJECT DETAILS
6	SHEETPILE DETAIL
7	FLOODGATE DETAIL
8	PUMP STATION
9	SEWER MANHOLE MAP
10-13	GENERAL DETAILS
14-22	CROSS SECTIONS BY JOHN CHANCE

TOTAL NO. OF SHEETS 22

**SITE PLAN**  
 N.T.S.  
 JUNE 2013



Note: "Prior to construction, the contractor will verify all utilities." If a conflict exist, notify the project engineer/architect.

  
**PROFESSIONAL  
 ENGINEERING AND  
 ENVIRONMENTAL  
 CONSULTANTS, INC.**  
ENGINEERS, PLANNERS AND ENVIRONMENTAL CONSULTANTS  
 1065 Muller Parkway Suite B, Westwego, LA 70094



SET NO. \_\_\_\_\_





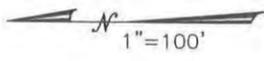






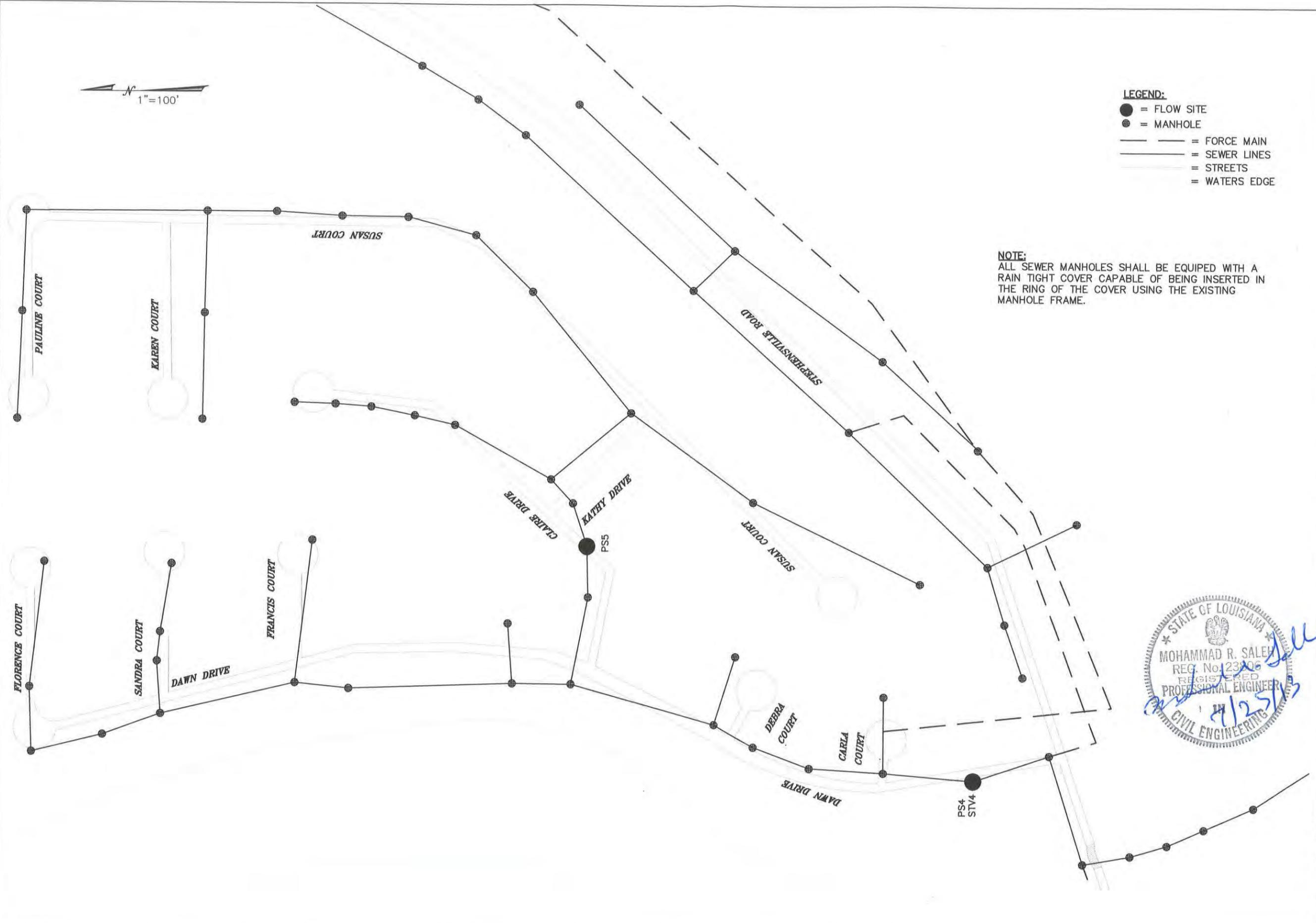




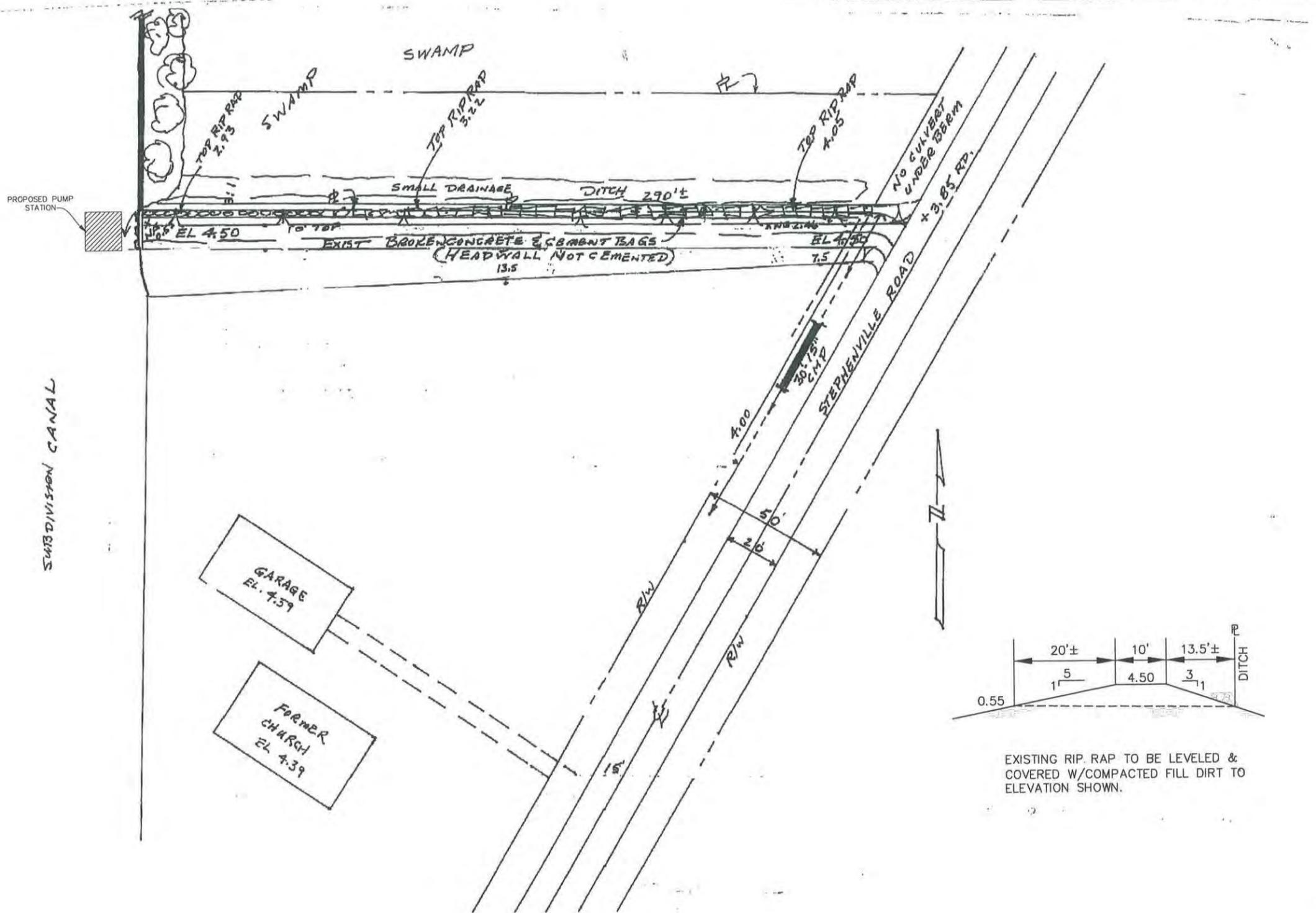


- LEGEND:**
- = FLOW SITE
  - ⊙ = MANHOLE
  - = FORCE MAIN
  - = SEWER LINES
  - = STREETS
  - - - = WATERS EDGE

**NOTE:**  
 ALL SEWER MANHOLES SHALL BE EQUIPPED WITH A RAIN TIGHT COVER CAPABLE OF BEING INSERTED IN THE RING OF THE COVER USING THE EXISTING MANHOLE FRAME.



ST. MARTIN PARISH GOVERNMENT BAYOU ESTATE SUBDIVISION STORM SURGE PROTECTION PROJECT SEWER MANHOLE MAP		DESIGNED: BB DETAILED: SPH DRAWN: SPH CHECKED: BB	PROFESSIONAL ENGINEERING AND ENVIRONMENTAL CONSULTANTS, INC. ENGINEERS, PLANNERS AND ENVIRONMENTAL CONSULTANTS	BY REV. DATE DESCRIPTION
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DATE: JUNE 2013				
PROJECT NO.: N/A				
DRAWING FILE NO.: N/A				
SHEET NO. : 9 OF 14				



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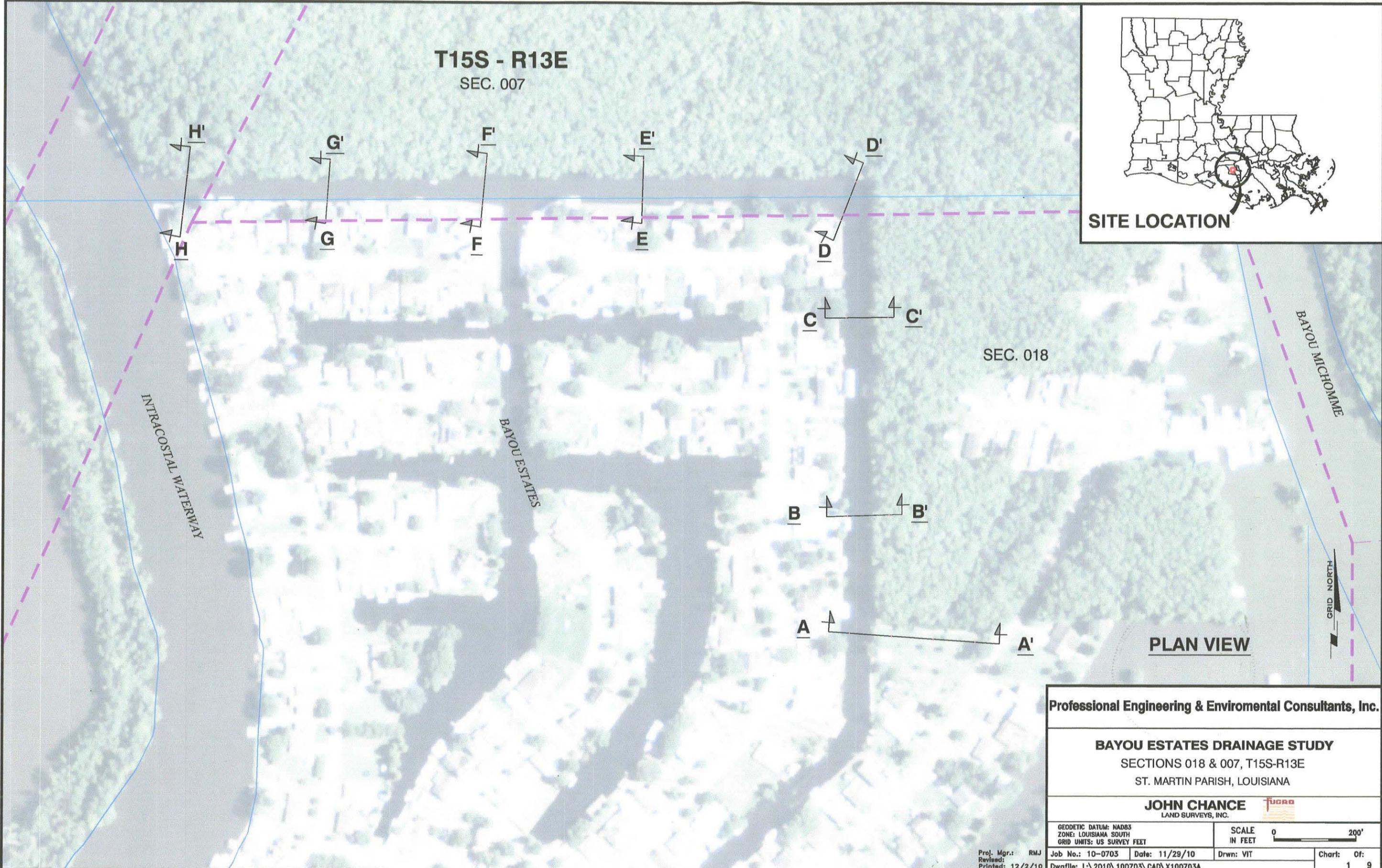


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T15S - R13E  
SEC. 007

SEC. 018

INTRACOSTAL WATERWAY

BAYOU ESTATES

BAYOU MICHODME

SITE LOCATION

PLAN VIEW

Professional Engineering & Environmental Consultants, Inc.

**BAYOU ESTATES DRAINAGE STUDY**  
SECTIONS 018 & 007, T15S-R13E  
ST. MARTIN PARISH, LOUISIANA

**JOHN CHANCE**   
LAND SURVEYS, INC.

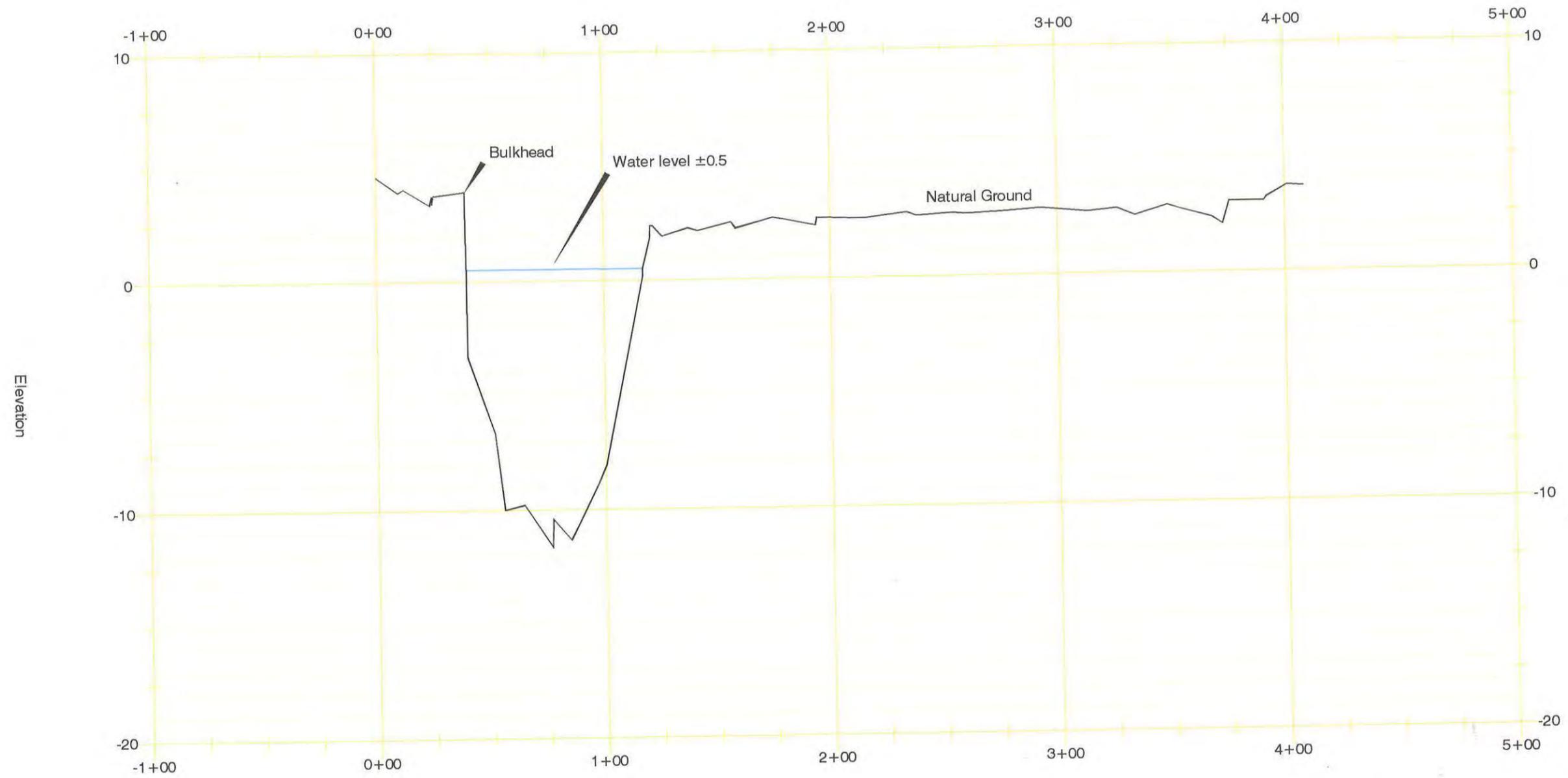
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**SECTION A-A'**

**HORIZONTAL SCALE**

Scale: 1"=50'

**VERTICAL SCALE**

Scale: 1"=5'

**Professional Engineering & Environmental Consultants, Inc.**

**BAYOU ESTATES DRAINAGE STUDY**  
 SECTIONS 018 & 007, T15S-R13E  
 ST. MARTIN PARISH, LOUISIANA

**JOHN CHANCE**   
 LAND SURVEYS, INC.

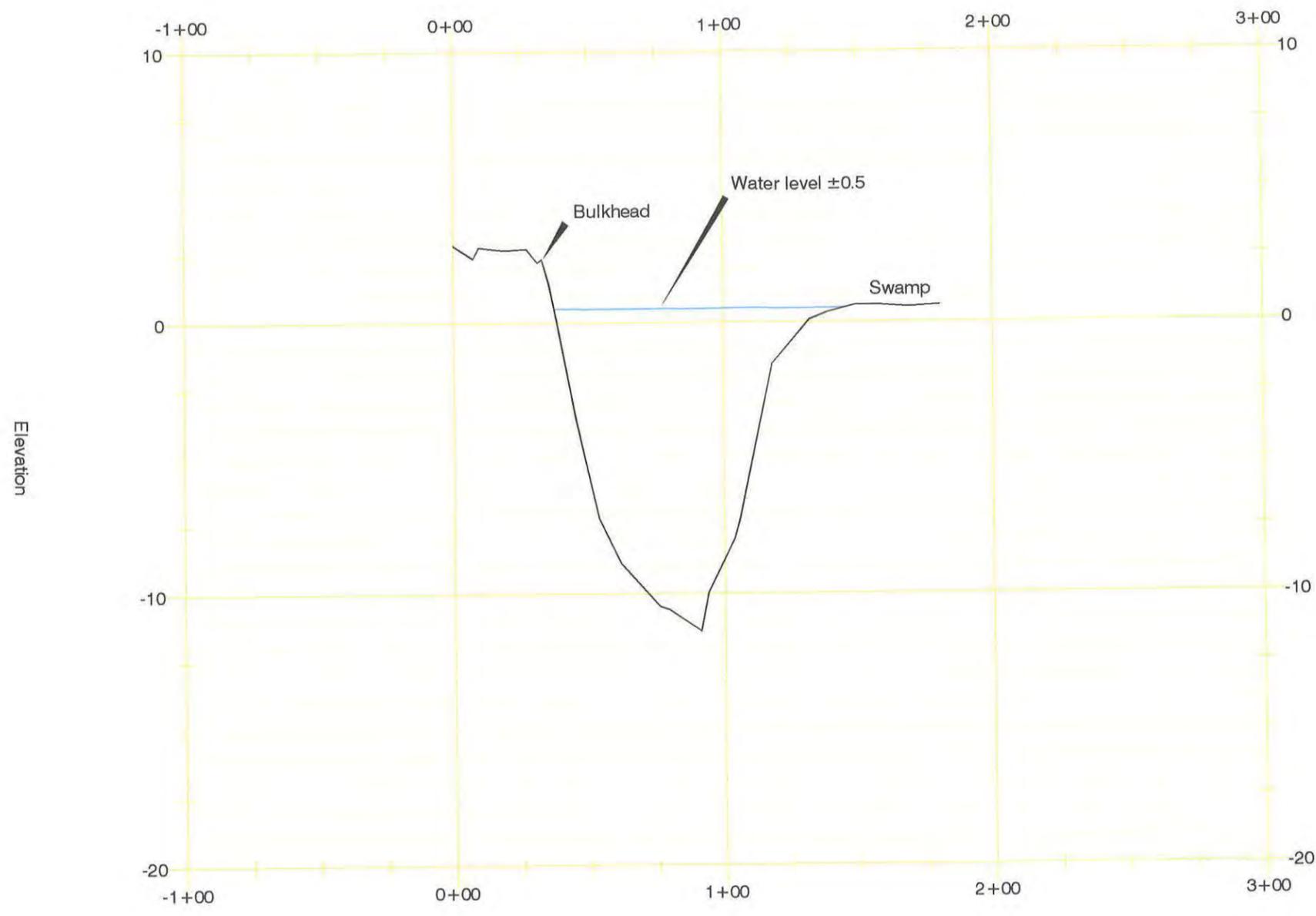
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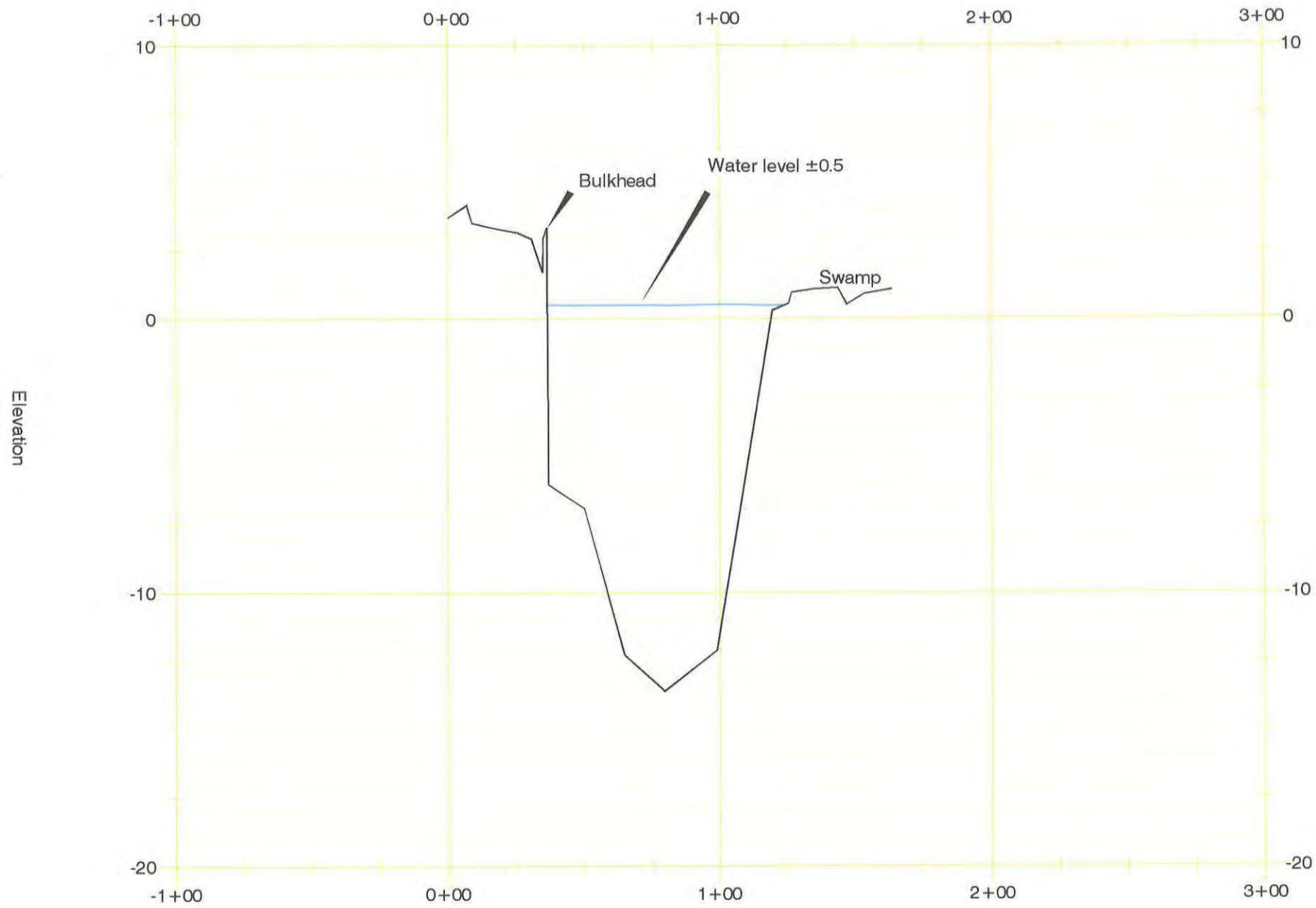


**HORIZONTAL SCALE**  
Scale: 1"=50'

**VERTICAL SCALE**  
Scale: 1"=5'

**SECTION B-B'**

<b>Professional Engineering &amp; Environmental Consultants, Inc.</b>			
<b>BAYOU ESTATES DRAINAGE STUDY</b>			
SECTIONS 018 & 007, T15S-R13E			
ST. MARTIN PARISH, LOUISIANA			
<b>JOHN CHANCE</b> LAND SURVEYS, INC.			
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**SECTION C-C'**

**HORIZONTAL SCALE**

Scale: 1"=50'

**VERTICAL SCALE**

Scale: 1"=5'

**Professional Engineering & Environmental Consultants, Inc.**

**BAYOU ESTATES DRAINAGE STUDY**

SECTIONS 018 & 007, T15S-R13E

ST. MARTIN PARISH, LOUISIANA

**JOHN CHANCE**  
LAND SURVEYS, INC.



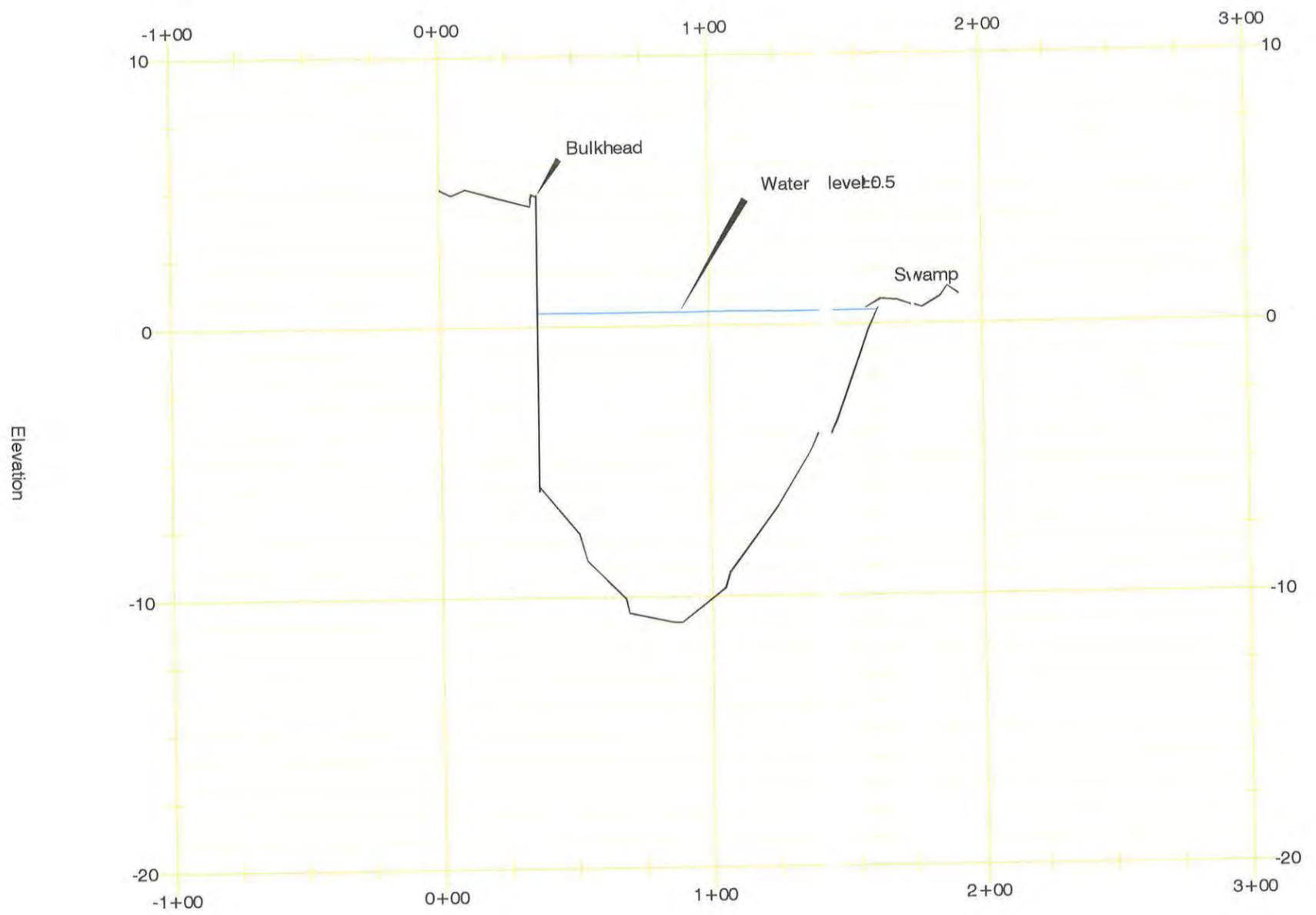
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**SECTION D-I 3'**

**HORIZONTAL SCALE**

Scale: 1"=50'

**VERTICAL SCALE**

Scale: 1"=5'

**Professional Engineering & Environmental Consultants, Inc.**

**BAYOU ESTATES DRAINAGE STUDY**

SECTIONS 018 & 007, T15S-R13E  
ST. MARTIN PARISH, LOUISIANA

**JOHN CHANCE**  
LAND SURVEYS, INC.

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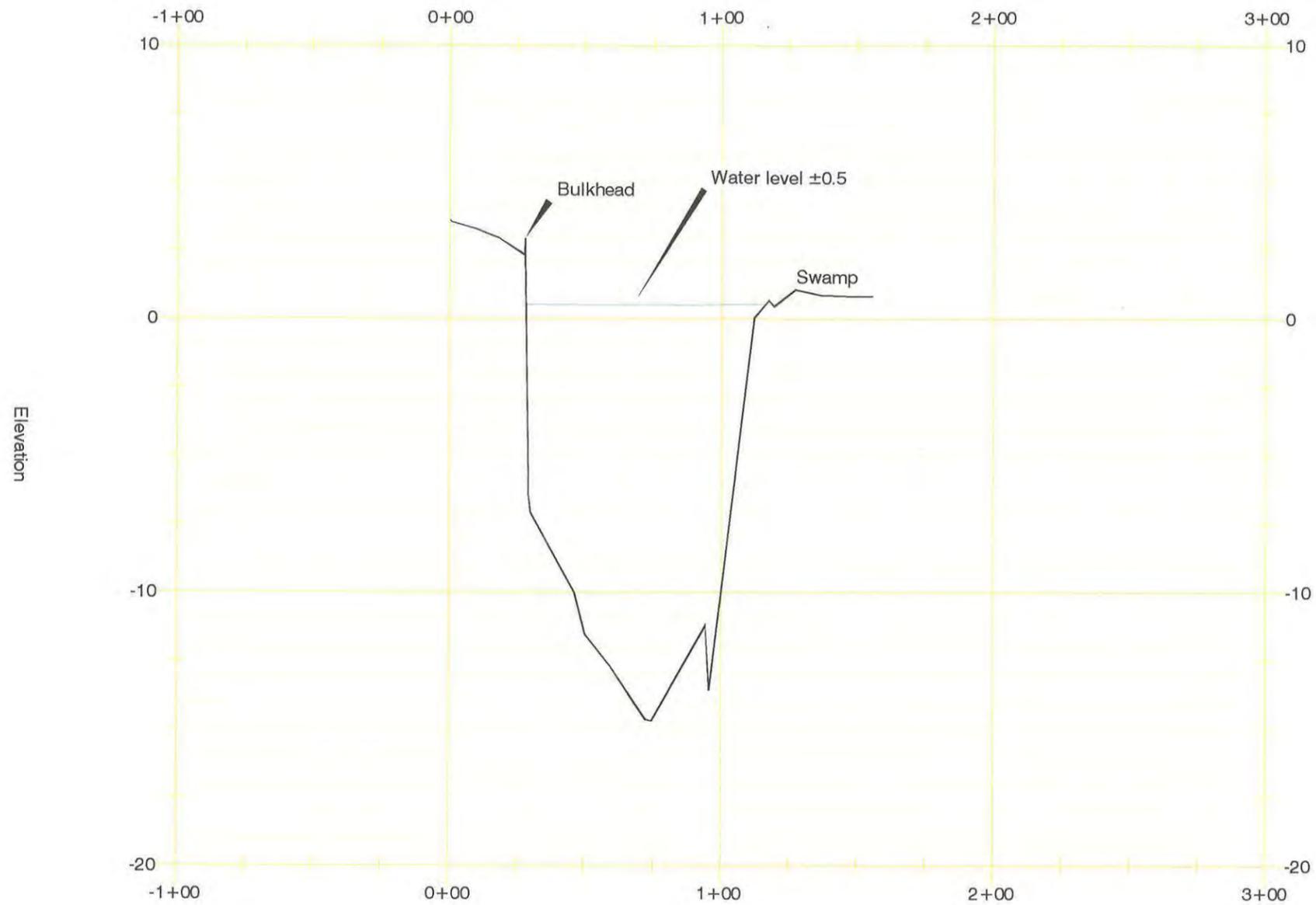
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**SECTION E-E'**

**HORIZONTAL SCALE**

Scale: 1"=50'

**VERTICAL SCALE**

Scale: 1"=5'

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SECTIONS 018 & 007, T15S-R13E

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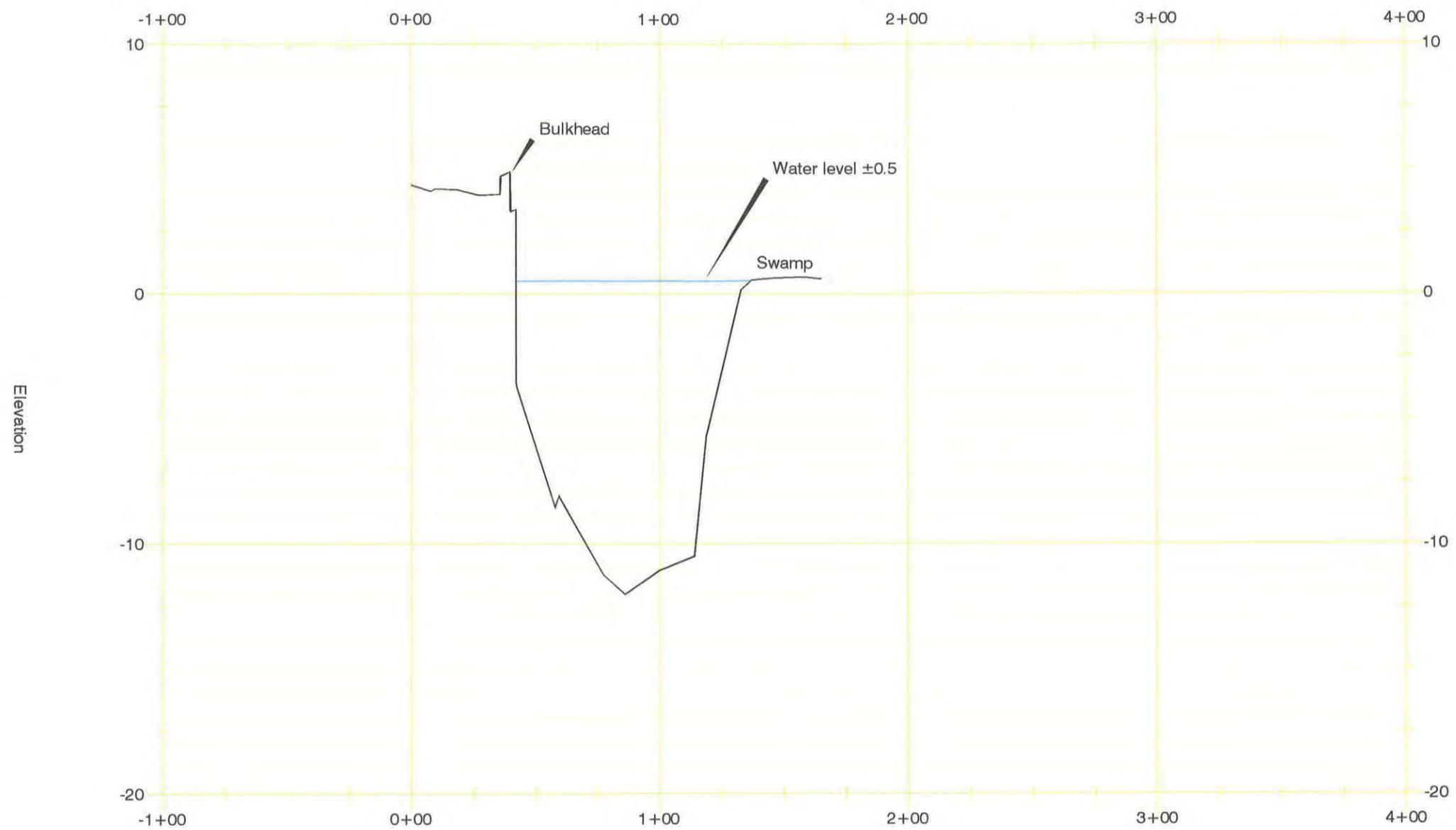
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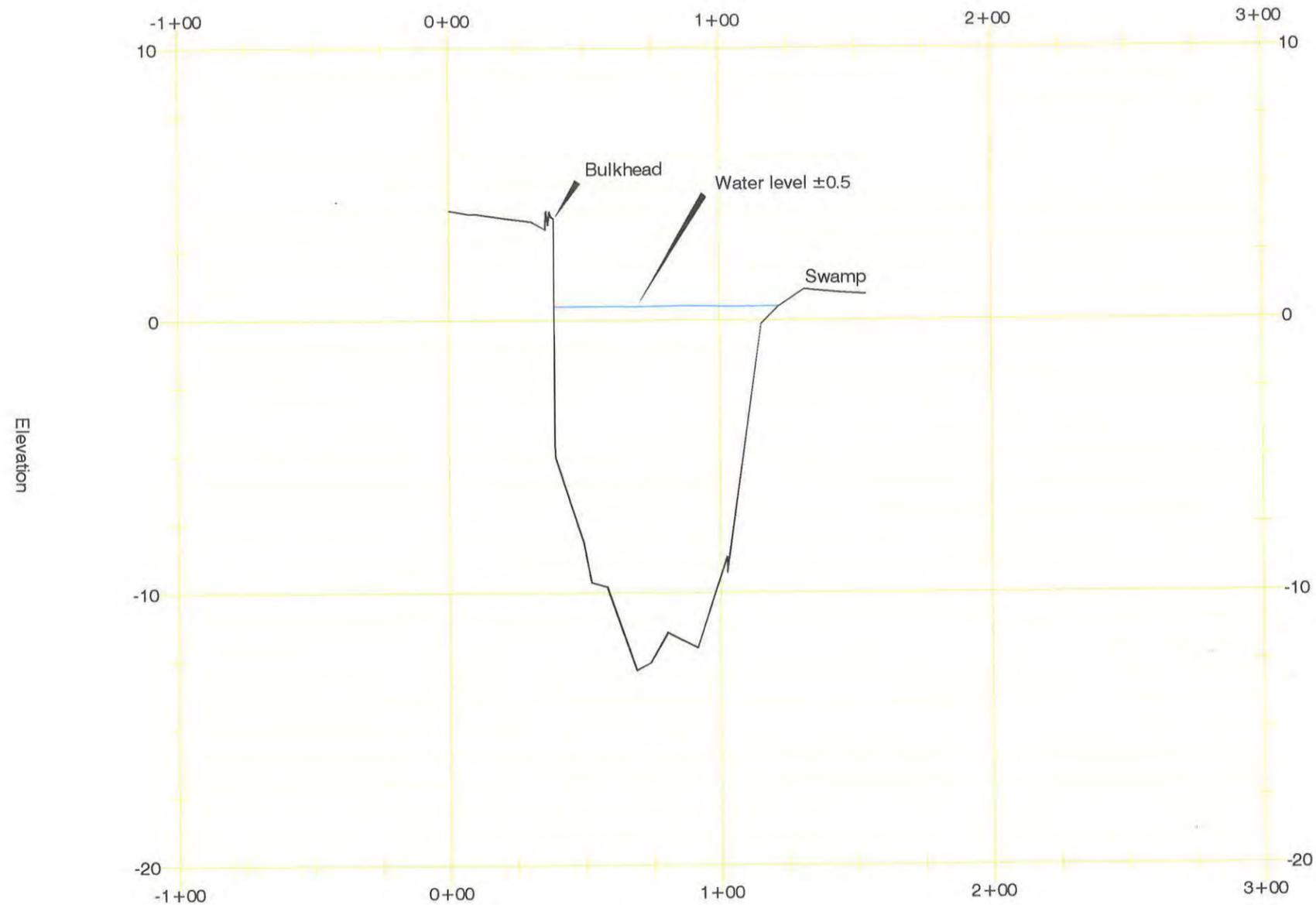
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Scale: 1"=50'

**VERTICAL SCALE**

Scale: 1"=5'

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SECTION G-G'

**HORIZONTAL SCALE**

Scale: 1"=50'

**VERTICAL SCALE**

Scale: 1"=5'

Professional Engineering & Environmental Consultants, Inc.

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SECTIONS 018 & 007, T15S-R13E

ST. MARTIN PARISH, LOUISIANA

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LAND SURVEYS, INC.

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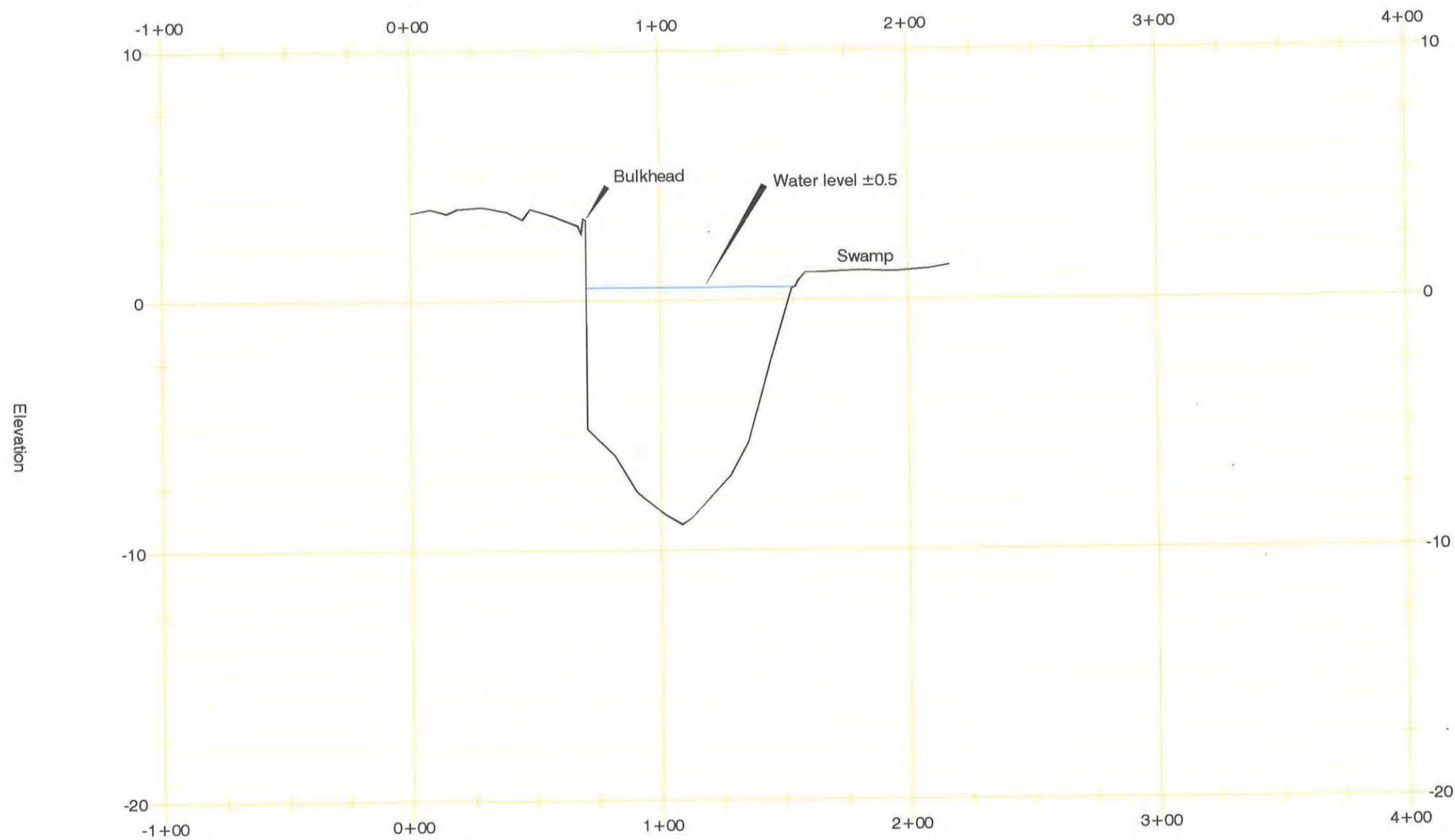
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Scale: 1"=50'

**VERTICAL SCALE**

Scale: 1"=5'

**Professional Engineering & Environmental Consultants, Inc.**

**BAYOU ESTATES DRAINAGE STUDY**

SECTIONS 018 & 007, T15S-R13E

ST. MARTIN PARISH, LOUISIANA

**JOHN CHANCE**   
LAND SURVEYS, INC.

GEODETIC DATUM: NAD83  
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**APPENDIX C**  
**EXTERNAL AGENCY**  
**CORRESPONDENCE**

## Schexnayder, Jamie

---

**From:** Schexnayder, Jamie  
**Sent:** Friday, May 29, 2015 11:05 AM  
**To:** 'Linda.Hardy@LA.GOV'; 'Amy.E.Powell@usace.army.mil'; 'gutierrez.raul@epa.gov'; 'cmichon@wlf.la.gov'; 'Karl.Morgan@la.gov'  
**Cc:** Spann, Tiffany; Holmes, Leschina; Pitts, Melanie  
**Subject:** Request for Solicitation of Views (SOV) for HMGP# 1603-0213 St. Martin Parish Stephenville Flood Protection and Pumping Station Retrofit  
**Attachments:** St. Martin Parish Stephenville Flood Protection and Pumping Station Retrofit SOV Consultation Information.pdf; Stephenville Flood Protection and Pumping Station Retrofit Plans.pdf

May 29, 2015

U.S. Department of Homeland Security  
Federal Emergency Management Agency  
FEMA-DR 1603/1607 LA  
Louisiana Recovery Office  
1500 Main St., Baton Rouge, LA 70802



MEMORANDUM TO: See Distribution

SUBJECT: Scoping Notification/Solicitation of Views

St. Martin Parish Stephenville Flood Protection and Pumping Station Retrofit, HMGP# 1603-0213,  
FEMA-1603-DR-LA

To Whom It May Concern:

The Department of Homeland Security's Federal Emergency Management Agency (FEMA) is mandated by the U.S. Congress to administer Federal disaster assistance pursuant to the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), PL 93-288, as amended. Section 404 and Section 406 of the Stafford Act authorizes FEMA's Hazard Mitigation Program to provide funds to states and local governments to implement long-term hazard mitigation measures after a major disaster declaration. FEMA is considering providing Hazard Mitigation Grant Program funding for the attached project in relation to Hurricanes Katrina and Rita (FEMA-1603/1607-DR-LA).

Please review the attached project description and proposed project plans to determine whether your office has any objections to the proposed project and whether any permits from your office would need to be obtained. The applicant is the St. Martin Parish Government.

This project is the applicant's request to implement a phased flood protection project and mitigation project. The applicant proposes to install flood control measures and upgrade the existing pumping system. The project site is located at Latitude 29.7641 and Longitude -91.1735, Stephensville, Louisiana.

To ensure compliance with the National Environmental Policy Act (NEPA), Executive Orders (EOs), and other applicable Federal regulations, FEMA-EHP will be preparing an Environmental Assessment (EA). To assist us in preparation of the EA, FEMA-EHP requests that your office review the attached documents for a determination as to the requirements of any formal consultations, regulatory permits, determinations, or authorizations.

We would appreciate your comments on this project within thirty (30) days. If we do not receive comments from you within this time period, we will assume that you have no concerns or issues with the proposed project. If appropriate, FEMA will add the condition that the applicant will be required to obtain applicable permits from your office.

Comments may be emailed to [jamie.schexnayder@fema.dhs.gov](mailto:jamie.schexnayder@fema.dhs.gov) or mailed to the attention of Jamie Schexnayder, Environmental Department, at the address above. For questions regarding this matter, please contact Jamie Schexnayder, Environmental Protection Specialist at (225) 200-4961.

Sincerely,

Tiffany Spann-Winfield,  
Deputy Environmental Liaison Officer, FEMA LRO  
FEMA 1603/1607-DR-LA

Distribution: LDEQ, USEPA, LDWF, LDNR, USACE

Attachment: Scope of Work, Project Plans

Jamie Schexnayder, CFM  
*Environmental Protection Specialist*  
FEMA Region VI – LRO  
1500 Main Street  
Baton Rouge, LA 70802  
BB (225) 200-4961  
[jamie.schexnayder@fema.dhs.gov](mailto:jamie.schexnayder@fema.dhs.gov)



## **Scope of work for Stephenville Flood Protection and Pumping Station Retrofit Project:**

The proposed project area includes the Stephenville/East Bayou Estates Subdivision located in the southern portion of St. Martin Parish in Stephenville, Louisiana, at Latitude 29.7641 and Longitude -91.1735. The proposed area incurs flooding frequently due to backwater flooding from the Atchafalaya River during heavy rain fall, coastal storm surge, tides, and sea level rise from the Gulf of Mexico, which quickly inundates the Bayou Estates Subdivision offering little capacity for proper drainage. The proposed project is to implement a phased flood protection project and mitigation project to: 1) Prevent flooding of streets and residences from flowing inverse in existing catch basins and outfalls when waterways rise; 2) Inhibit intrusion of water in the wastewater treatment system for the community when waterways rise; and 3) Improve the performance and protect the existing pumping station located in the community by elevating and increasing pumping capacity. The proposed project would provide protection against the 100-year (1%) flood for approximately 826 structures in the community.

To address these issues, the Applicant proposes to install flood control measures and upgrade the existing pumping system. The following project improvements to protect Bayou Estates Subdivision from flooding are proposed as part of this project which includes:

- 1) Installing 1,000 linear feet of PVC sheet piles with the highest elevation at +6.0NAVD along the northern and eastern portion of the outer bank of the drainage canal;
- 2) Assembling one (1) new roller and or, 30' foot hinged aluminum floodgate along the north bank of Bayou Estates Subdivision;
- (3) Installing one (1) new drainage pump station with two (2) – 50 cubic feet per second (CFS) pumps and a generator to create a forced drainage area under storm events;
- (4) Rebuilding and elevating the existing drainage pump station at the entrance to the subdivision;
- (5) Repairing existing canal banks throughout the development;
- (6) Removing the existing drain pipes from the outer canals and installing new pipes to allow storm water to be directed towards the drainage pump stations;
- (7) Constructing a 250' foot earthen berm on the western edge of the subdivision and behind the homes with low ground elevation to prevent storm water from entering along the western boundary of the subdivision;
- (8) Installing six (6) short-run, low earthen berms along portions of the subdivision adjacent to Dawn Drive and Stephenville Road;
- (9) Minor upgrades and enlargements to several catch basins and culverts throughout the subdivision.

**Figure 1: Aerial of Site Location**



**Site Photographs**

**Project Improvement Area #1**

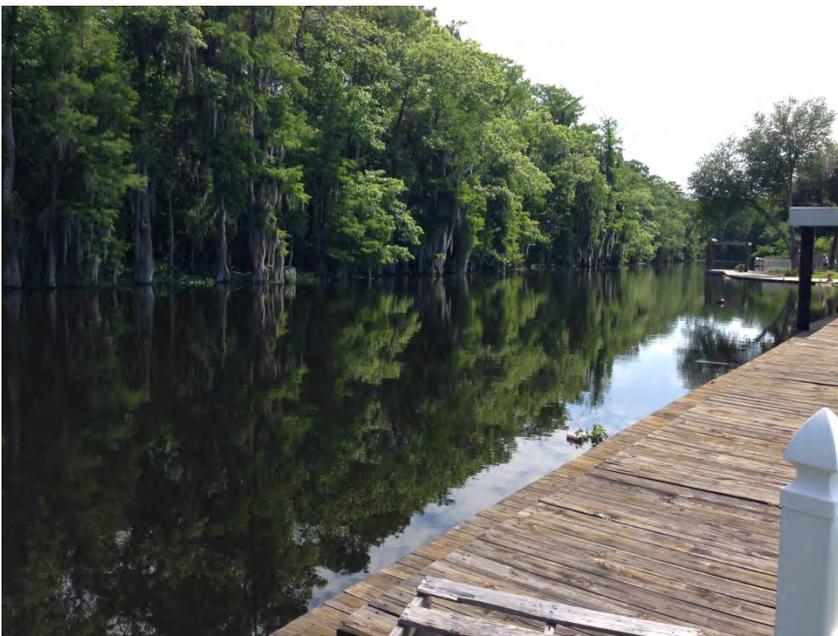


Image of canal at Florence Court looking east.

**Project Improvement Area #1 (continued)**



Image of bulkhead at Florence Court looking northeast.



Image of the proposed PVC sheet piles along northern and eastern back of canal.

**Project Improvement Area #2**

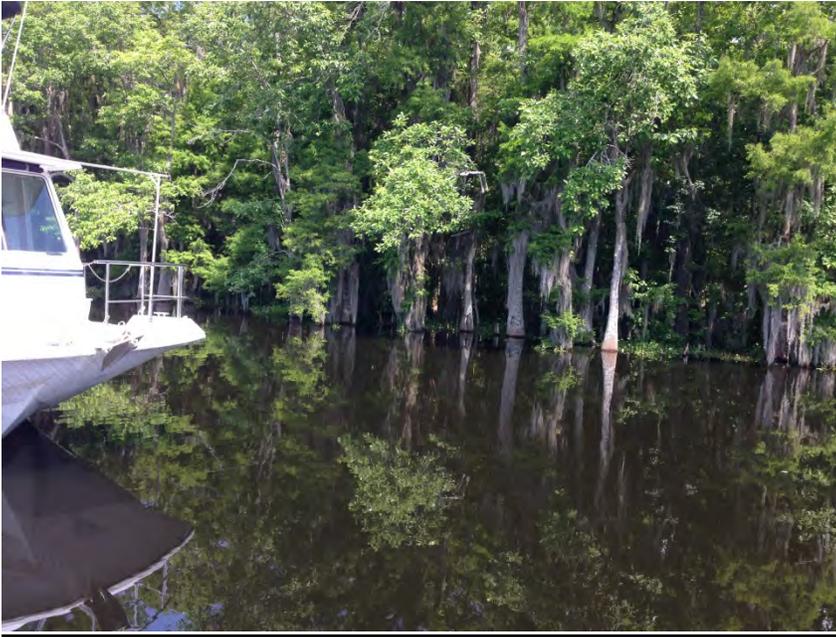


Image of canal from Florence Court looking northwest.

**Project Improvement Area #3**



Image of the proposed location for a new drainage pump station (facing west).

**Project Improvement Area #3 (continued)**



View from corner of Stephenville Road facing northeast.

**Project Improvement Area #4**



Image of the existing pump station to be elevated near Stephenville Road (facing west).

**Project Improvement Area #5**



Drainage canal entrance and pump station facing southeast.

**Project Improvement Area #6**



View from existing culvert ditch along Stephenville Road (facing northwest).

**Project Improvement Area #6 (continued)**



Image of culverts at the drainage canal entrance.

**Project Improvement Area #7**



Proposed site for discharge pipe and berm facing east.

**Project Improvement Area #8**



View from existing culvert ditch along Stephenville Road facing northwest.

**Project Improvement Area #9**



Catch basin at the intersection of Stephenville Road and Dawn Drive.

**Project Improvement Area #9 (continued)**



Culverts at drainage canal entrance.



Sewer drain and cap at the corner of Dawn Drive and Stephenville Road looking east.

**From:** [Linda \(Brown\) Hardy](#)  
**To:** [Schexnayder, Jamie](#)  
**Cc:** [Yasoob Zia](#)  
**Subject:** DEQ SOV 150605/0690 St. Martin Parish Stephenville Flood Protection  
**Date:** Thursday, June 25, 2015 3:42:00 PM

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June 25, 2015

Tiffany Spann-Winfield,  
Deputy Environmental Liaison Officer, FEMA LRO  
1500 Main St  
Baton Rouge, LA 70802  
[jamie.schexnayder@fema.dhs.gov](mailto:jamie.schexnayder@fema.dhs.gov)

RE: 150605/0690 St. Martin Parish Stephenville Flood Protection  
FEMA Funding  
St. Martin Parish

Dear Ms. Spann-Winfield:

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 is required. An application or Notice of Intent will be required if the sludge management practice includes preparing biosolids for land application or preparing sewage sludge to be hauled to a landfill. 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, St. Martin 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) 219-3954 or by email at [linda.hardy@la.gov](mailto:linda.hardy@la.gov).

Sincerely,

*Linda M. Hardy*

Technical Assistant to the Deputy Secretary  
Louisiana Department of Environmental Quality  
Office of the Secretary  
P.O. Box 4301  
Baton Rouge, LA 70821-4301  
Ph: (225) 219-3954  
Fax: (225) 219-3971  
Email: [linda.hardy@la.gov](mailto:linda.hardy@la.gov)



State of Louisiana  
DEPARTMENT OF NATURAL RESOURCES  
OFFICE OF COASTAL MANAGEMENT

06/10/2015

FEMA  
1500 MAIN ST.  
BATON ROUGE, LA 70802  
Attn: Jamie Schexnayder

**RE: P20150565, Solicitation of Views  
ST. MARTIN PARISH GOVERNMENT**

**Description:** Proposed implementation of a phase flood protection and mitigation project to prevent excess flooding and intrusion of flood waters into the community.

This will be accomplished by elevating and increasing the pumping capacity of facilities surrounding the community. The proposed project would provide protection against the 100-year (1%) flood for approximately 826 structures in the community.

**Location:** Lat. 90° 28' 13.24"N / Long. 28° 38' 1.56"W; Stephenville,  
**Saint Martin Parish, LA**

Dear Jamie Schexnayder:

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:

- Chitimacha Aboriginal Grounds
- Louisiana Natural Heritage Program Site (LDWF)
- Levee maintained by the Atchafalaya Basin Levee District

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 Brad Hester at (225) 342-9410 or Brad.Hester@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/bh**

Attachments

**Final Plats:**

- 1) [P20150565](#)    [Final Plats](#)    [05/29/2015](#)

cc: Coastal Protection and Restoration Authority w/plats  
Jessica Diez, OCM w/plats  
Darin Thomasee, CMD/FI w/plats  
ST. MARTIN PARISH GOVERNMENT w/plats



# Joint Permit Application

## For Work Within the Louisiana Coastal Zone

**What is the purpose of the Joint Permit Application?**

This Joint Permit Application was developed to facilitate the state and federal permit application process administered by the Louisiana Department of Natural Resources/Office of Coastal Management (OCM) and the U.S. Army Corps of Engineers (COE) for work within the Louisiana Coastal Zone.

To simplify the permit application process, the Joint Permit Application is a multi-purpose application. It may be used to apply for a Coastal Use Permit (CUP) and/or a Department of the Army Permit under Section 10 of the Rivers and Harbors Act and/or Section 404 of the Clean Water Act. This application may also be used to apply for a Solicitation of Views (SOV) or an OCM Request for Determination (RFD). Review the instructions below, then proceed to Step 1.

**Instructions**

**How do I complete the Joint Permit Application?**

There are two parts to the Joint Permit Application package:

1. Joint Permit Application, and
2. Maps and Drawings.

**An accurate/complete application is required for processing; inaccurate/missing information may delay processing. Follow the instructions below to complete the application. Specific instructions are provided with each step.**

- Type or print clearly using black or blue ink;
- Steps 1 through 16 must be completed; write "N/A" if information does not apply to your proposed project. It is not necessary to write "N/A" on the Steps that you have been asked to skip;
- When additional space is needed, include an 8½ x 11 sheet of paper identifying the Step number.

**When you have questions or need assistance in completing the application package:**

- Refer to the "Glossary of Terms" (See page 10.);
- Refer to "Frequently Asked Questions" (See page 11.);
- Contact the Office of Coastal Management at 1-800-267-4019 or 225-342-7591; or
- Contact your local coastal parish program (See page 11.).  
(<http://dnr.louisiana.gov/CRM/coastmgmt/interagencyaff/lcp/lcp.asp>)

**Step 1 of 16**

**Who is the applicant for the proposed project?**

Complete the following information about the applicant.

**Applicant/Company Name:** ST. MARTIN PARISH  
Individual Person or Corporation/Company

**Mailing Address:** 301 WEST PORT STREET  
Street Address or P.O. Box Unit/Apartment #  
ST. MARTINVILLE LA 70582  
City State Zip

**Contact Information:** GUY CORMIER gcormier@stmartinparish.net  
Name of Contact Person (not the agent) E-Mail Address  
( 337 ) 394-2200 ( 337 ) 394-2239  
Area Code Daytime Telephone Number Area Code Fax Number

*Note: Applicants may be either the landowner, person or company that is responsible for the proposed project.*

**Step 2 of 16**

Is an agent being used for the proposed project?

Note: An agent is not required.

Is an agent being used for the proposed project?

- NO (If NO, proceed to Step 3.)  
 YES (If YES, complete the following information.)

Company Name: Professional Engineering and Environmental Consultants, Inc.  
 Corporation/Company

Mailing Address: 1065 Muller Parkway Suite "B"  
 Street Address or P.O. Box Unit/Apartment #  
 Westwego LA 70094  
 City State Zip

Contact Information: Mo Saleh, P.E. mo@peecinc.com  
 Name of Contact Person E-Mail Address  
 ( 504 ) 347-1900 ( 504 ) 341-5600  
 Area Code Daytime Telephone Number Area Code Fax Number

**Step 3 of 16**

What type of permit or action would you like to request?

Note: You may need the approval of other federal, state or local agencies for your project.

Note: For questions concerning the CUP, SOV or RFD, call OCM at:  
 • 1-800-267-4019  
 or  
 • 225-342-7591

Check  the appropriate box(es) to indicate the type of permit or action that you would like to request.

Coastal Use Permit (CUP), Clean Water Act Permit (Section 404), Rivers and Harbors Act (Section 10)  
 The purpose of the CUP is to ensure that any activity affecting the Coastal Zone is completed in a manner that is consistent with the Louisiana Coastal Resource Program.

The purpose of the Department of the Army permit program under Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act is to review and evaluate proposals for dredging, filling, and/or placement of structures in waterways and wetlands in order to determine whether a permit should be granted or denied based on expected impacts to the overall public interest.

Solicitation of Views (SOV)

If you wish to find out if your project is in the Coastal Zone or if you wish to determine if there are special features of the area that may impact your project design you may request a SOV. No application fee is assessed for SOV requests. The following Steps must be completed to obtain an informal determination.

- Step 1, Step 2, Step 6, Step 14, Step 16; and
- Step 13 - (Vicinity plat showing project location and extent is required; cross section and plan views are useful, if available.)

Request for Determination (RFD) - OCM only

If you wish to obtain a formal determination as to whether or not a CUP would be required for a particular activity, you may submit a RFD. The appropriate application fee will be assessed for RFD requests. The following Steps must be completed to obtain a RFD.

- Step 1, Step 2, Step 5, Step 6, Step 8, Step 10, Step 14, Step 16; and;
- Step 13 - (Vicinity plat showing project location and extent is required; cross section and plan views are useful, if available.)
- If you think that no permit is required, you must provide a statement explaining why you think a permit is not required.

**Step 4 of 16**

Have you participated in a Pre-Application or Geological Review Meeting or obtained a wetland determination?

Note: To schedule a Pre-Application and/or a Geological Review Meeting, call OCM at 1-800-267-4019.

Note: To apply for a wetland determination, call the COE at 504-862-1627.

a. Have you participated in a Pre-Application or Geological Review Meeting for the proposed project?

- NO (If NO, proceed to Step 4b.) (If you would like to schedule a pre-application meeting, please call 1-800-267-4019)  
 YES (If YES, complete the following information.)

Date meeting was held: 5 / 30 / 2013

Attendees: Mo Saleh Individual or Company Representative Mr. Nethery and Mr. Barbara COE Representative  
 OCM Representative

b. Have you obtained an official wetland determination from the COE for the project site?

- NO (If NO, proceed to Step 4c.)  
 YES (If YES, include a copy with this application.)

JD Number: \_\_\_\_\_

c. Is this application a mitigation plan for another CUP?

- NO (If NO, proceed to Step 5.)  
 YES (If YES, identify the permit number of the project requiring mitigation.)

OCM Permit Number: \_\_\_\_\_

Continue to page 3 for step 5. ↗



**Step 7 of 16**

Complete the following information to notify adjacent landowners whose property adjoins the proposed project site.

**Who are the adjacent landowners?**

*Note: Adjacent landowner information is usually available through the office of the tax assessor in the parish where the project is to be developed.*

*Note: Additional information may be included in the area provided on page 12. Also, extra sheets may be required if there are more than eight adjacent landowners.*

**Adjacent Landowner #1:**

Name of Adjacent Landowner \_\_\_\_\_

Mailing Address: Address \_\_\_\_\_ Unit/Apartment # \_\_\_\_\_

City \_\_\_\_\_ Parish \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

**Adjacent Landowner #2:**

Name of Adjacent Landowner \_\_\_\_\_

Mailing Address: Address \_\_\_\_\_ Unit/Apartment # \_\_\_\_\_

City \_\_\_\_\_ Parish \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

**Adjacent Landowner #3:**

Name of Adjacent Landowner \_\_\_\_\_

Mailing Address: Address \_\_\_\_\_ Unit/Apartment # \_\_\_\_\_

City \_\_\_\_\_ Parish \_\_\_\_\_ State LA Zip \_\_\_\_\_

**Adjacent Landowner #4:**

Name of Adjacent Landowner \_\_\_\_\_

Mailing Address: Address \_\_\_\_\_ Unit/Apartment # \_\_\_\_\_

City \_\_\_\_\_ Parish \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

**Step 8 of 16**

Complete the following information to identify the purpose and need for the proposed project.

**What is the purpose of the proposed project?**

*Note: We are required to review the justifications and needs for your project. Providing detailed information at the time of application may expedite processing of your proposal.*

*Note: Additional sheets may be required to explain why the proposed project is needed.*

a. Project Name and/or Title: BAYOU ESTATE DRAINAGE IMPROVEMENTS

b. Project Type: (Check  the appropriate box. See the "Glossary" on page 10 for the definitions of terms.)  
 Non-Residential  
 Residential

c. Source of Funding  Federal  State  Local  Private

d. Check  the appropriate box(es) to identify what will be done for the proposed project.

- |                                                           |                                                      |                                                     |                                                 |
|-----------------------------------------------------------|------------------------------------------------------|-----------------------------------------------------|-------------------------------------------------|
| <input type="checkbox"/> Bridge/Road                      | <input type="checkbox"/> Drill site                  | <input type="checkbox"/> Piliings                   | <input type="checkbox"/> Riprap/Erosion Control |
| <input type="checkbox"/> Bulkhead/Backfill                | <input type="checkbox"/> Fill                        | <input type="checkbox"/> Pipeline/Flow line         | <input type="checkbox"/> Site Clearance         |
| <input checked="" type="checkbox"/> Drainage Improvements | <input type="checkbox"/> Home Site/Driveway          | <input type="checkbox"/> Plug/Abandon               | <input type="checkbox"/> Subdivision            |
| <input type="checkbox"/> Dredging                         | <input type="checkbox"/> Levee Construction          | <input type="checkbox"/> Production Barge/Structure | <input type="checkbox"/> Vegetative Plantings   |
| <input type="checkbox"/> Drill Barge/Structure            | <input type="checkbox"/> Major Industrial Commercial | <input type="checkbox"/> Prop Washing               | <input type="checkbox"/> Wharf/Pier/Boathouse   |
| <input type="checkbox"/> Other                            | <input type="checkbox"/> Marina                      | <input type="checkbox"/> Remove Structures          |                                                 |
- (Please specify) \_\_\_\_\_

e. Why is the proposed project needed?

THE BAYOU ESTATE AREA IS AFFECED BY FLOODING EVENTS THAT TAKES PLACE IN MISSISSIPPI RIVER AND ATCHAFALAYA BASIN AND LAKE PALOURD. THE EVENTS ARE USUALLY 2 TO 4 MONTHS LONG. THE FLOODING WILL MAKE THE OWNERS OF EACH HOUSE TO PLACE SAND BAGS AROUND THERI HOUSES AND PUMP THE WATER INTO THE ADJACENT CANAL. THIS PROJECT WILL PROVIDE THE PROTECTION THAT THEY NEED DURING THESE EVENTS. THIS IS A DRAINAGE IMPROVEMENT PROJECT.

Continue to page 5 for step 9. 

**Step 9 of 16**

**What is the status of the proposed project?**

*Note: Show and identify planned, in progress, completed work and dimensions for excavations and fill on the Plan View and Cross Section Drawings.*

Complete the following information to indicate the start/end dates and the current status of the proposed project.

a. Proposed project start date: 6 / 1 / 2013 Proposed project completion date: 12 / 31 / 2013

b. Is any of the project work in progress?

- NO (If NO, proceed to Step 9c.)  
 YES (If YES, show and identify the work in progress on the Plan View and Cross Section Drawings.)  
 Please explain

c. Is any of the project work complete?

- NO (If NO, proceed to Step 10.)  
 YES (If YES, show and identify the work completed on the Plan View and Cross Section Drawings.)  
 Please explain

**Step 10 of 16**

**How would you describe the proposed project?**

*Note: To apply for a wetland determination, call the COE at 504-862-1627.*

*Note: Information provided in this Step must be consistent with Maps and Drawings.*

*Note: For any equipment used, show the access route and construction right of way on the Maps and Drawings.*

Complete the following information to describe structures, materials and methods for the proposed project.

Cubic yards are determined by using this formula. (Length (ft.) X Width (ft.) X Depth (ft.) divided by 27 = Cubic Yards)

Example: 25 ft. X 25 ft. X 5 ft. divided by 27 = 115.7 Cubic Yards

Acres are determined by using this formula. (Length (ft.) X Width (ft.) divided by 43,560 = Acres)

Example: 250 ft. X 250 ft. divided by 43,560 = 1.43 Acres

a. Excavation:

	120.00		0.05
Cubic Yards		Acres	

b. Fill:

	55.00		0.10
Cubic Yards		Acres	

c. What fill materials will be used for the proposed project?

(Check  the appropriate box(es) and indicate the cubic yards for each type of fill material.)

- |                                                                |             |                                                    |             |
|----------------------------------------------------------------|-------------|----------------------------------------------------|-------------|
| <input type="checkbox"/> Concrete                              |             | <input checked="" type="checkbox"/> Rock (rip/rap) | 55.00       |
|                                                                | Cubic Yards |                                                    | Cubic Yards |
| <input type="checkbox"/> Crushed Stone or Gravel               |             | <input type="checkbox"/> Sand                      |             |
|                                                                | Cubic Yards |                                                    | Cubic Yards |
| <input checked="" type="checkbox"/> Excavated & Placed on site | 120.00      | <input type="checkbox"/> Hauled in Topsoil/Dirt    |             |
|                                                                | Cubic Yards |                                                    | Cubic Yards |
| <input type="checkbox"/> Excavated & Hauled off site           |             |                                                    |             |
|                                                                | Cubic Yards |                                                    | Cubic Yards |
| <input type="checkbox"/> Other (Please specify):               |             |                                                    |             |
|                                                                | Cubic Yards |                                                    | Cubic Yards |

d. What equipment will be used for the proposed project? (Check  the appropriate box(es).)

- |                                                        |                                                      |                                                            |
|--------------------------------------------------------|------------------------------------------------------|------------------------------------------------------------|
| <input type="checkbox"/> Airboat                       | <input checked="" type="checkbox"/> Bulldozer/Grader | <input type="checkbox"/> Marsh Buggy                       |
| <input checked="" type="checkbox"/> Backhoe            | <input type="checkbox"/> Dragline/Excavator          | <input type="checkbox"/> Other Tracked or Wheeled Vehicles |
| <input type="checkbox"/> Barge Mounted Bucket Dredge   | <input type="checkbox"/> Handjet                     | <input type="checkbox"/> Self Propelled Pipe Laying Barge  |
| <input type="checkbox"/> Barge Mounted Drilling Rig    | <input type="checkbox"/> Land Based Drilling Rig     | <input type="checkbox"/> Tugboat                           |
| <input type="checkbox"/> Other (Please specify.) _____ |                                                      |                                                            |

Continue to page 6 for step 11.

**Step 11 of 16**

**What impact will the proposed project have?**

*Note: You will be notified by OCM if a field investigation is required to determine if the proposed project will impact wetlands.*

*Note: Additional sheets may be required to adequately respond to 11b, 11c, 11d and/or 11e.*

*Note: Providing detailed information at the time of application may expedite processing of your proposal.*

a. Total acres of wetlands and/or waterbottoms filled and/or excavated: 0.10

b. What alternative locations, methods and access routes were considered to avoid impact to wetlands and/or waterbottoms?

"No Action" will be the only other alternative.

c. What efforts were made to minimize impact to wetlands and/or waterbottoms?

THE PROPOSED PROJECT HAS BEEN MOVED TO THE EXISTING CANALS TO PREVENT IMPACTS TO THE WETLAND AREA.

d. How are unavoidable impacts to vegetated wetlands to be mitigated? (Please note that a willingness to perform mitigation does not relieve the applicant from adequately addressing justification for (step 8e) and alternatives to (step 11b & 11c) the proposed activity)

THE ONLY WETLAND AREA IMPACTED IS THE AREA USED TO INSTALL THE DISCHARGE PIPE OF THE PUMP STATION.

**Landowner Rights**

- The affected landowner(s) whose property may be impacted by the proposed project has (have) the option of requesting that compensatory mitigation be done on their property.
- Once OCM determines that mitigation is required, they will notify the applicant and all affected landowners of the extent and type of habitat impacted. The landowner(s) will be given thirty (30) days to formally request or waive their mitigation option. (This can cause substantial delays in processing of the application.)

**Applicant Responsibilities**

- Coordinate with the affected landowner(s) to develop a conceptual compensatory mitigation plan. This plan should be designed to offset the adverse impacts to vegetated wetlands which will occur from the proposed project. (This can also cause substantial delays in processing of the application.)
- To avoid delays, it is recommended that, prior to sending the application to OCM, you contact affected landowner(s) to:
  - Inform them of possible wetland impacts and discuss their compensatory mitigation rights; and
  - Ask them to indicate their intentions regarding compensatory mitigation on the form.
- Submit the Landowner Compensatory Mitigation Request/Waiver form along with your application.

Continue to page 7 for step 12. 

**Step 12 of 16**

**What are the requirements for notification of landowners and oyster lease holders of the proposed project site?**

*Note: OCM and COE both have mitigation requirements under different laws, rules and regulations; therefore, specific agency requirements may vary.*

*Note: If a property has multiple owners with undivided interest in the property, each person owning an interest is considered to be a landowner and must be notified.*

*Note: Additional sheets may be required if there are more than two landowners.*

*Note: Compensatory mitigation is not a monetary settlement to be used at the discretion of the landowner(s).*

*Note: A copy of the "Landowner Compensatory Mitigation Request/Waiver" form is included with this application. To obtain additional copies, visit the OCM website or call: +1-800-267-4019 Or +225-342-7591*

*Note: See our FAQ for a list of regulations that may be applicable. Be aware that this list is for example purposes and does not purport to be complete or indicate applicability in any particular situation or project. It is the applicant's responsibility to be fully aware of all regulatory requirements, to list those requirements and certify that they will be in compliance.*

**a. Are you applying for a Coastal Use Permit?**

- NO (If NO, proceed to Step 12b.)
- YES (If YES, read the following information.)

**Requirements for Notification of Landowners**

It is the responsibility of the applicant to notify the landowner(s) of the property about this proposed project. Notification must include providing each impacted landowner with a copy of the permit application (form and plats) at the time the application is submitted to the Office of Coastal Management.

**Requirements for Notification to Oyster Lease Holders**

It is the responsibility of the applicant to notify all affected oyster lease holders about this proposed project. Notification must include providing each affected oyster lease holder with a copy of the permit application (form and plats) at the time the application is submitted to the Office of Coastal Management. The location of leases, and the name and contact information of the lessee can be obtained by contacting the LDWF Oyster Lease Survey Section at 504-284-5279. You also can use the OCM GIS interactive map on our website at [http://sonris-www.dnr.state.la.us/www\\_root/sonris\\_portal\\_1.htm](http://sonris-www.dnr.state.la.us/www_root/sonris_portal_1.htm). Please note that copies of the lease holder notification letters must be included with your application packet at the time of submittal. For more information regarding notification requirements please contact the Oyster Lease Survey Section or visit our website at <http://dnr.louisiana.gov/crm/coastmgmt/permitsmitigation/oyster.asp>.

While these are legal requirements to ensure that property owners/oyster lease holders are aware of proposals which might impact their land/oyster lease, it also serves as a proactive measure to initiate communication between the applicant and the landowner(s)/lease holders, especially when mitigation might be necessary. Since mitigation can be a lengthy process, taking proactive steps early in the process may significantly reduce the time necessary to receive an authorization.

**b. Are you the sole owner of the property on which the proposed activity is to occur?**

- YES (If YES, proceed to Step 12c.)
- NO (If NO, follow the instructions below.)

Check  the appropriate box(es) and complete the landowner information to attest to OCM that a copy of this application has been sent to all landowners whose property will be impacted by the project.

- The applicant is an owner of the property on which the proposed described activity is to occur.
- The applicant has made every reasonable effort to determine the identity and current address of the owner(s) of the land on which the proposed described activity is to occur, which included, if necessary, a search of the public records of the parish in which the proposed activity is to occur.
- The applicant hereby attests that a copy of the application has been distributed to the following landowners.

**Landowner/Lease Holder #1:**

Name of Landowner / Lease Holder \_\_\_\_\_

**Mailing Address:**

Street Address or P.O. Box \_\_\_\_\_ Unit/Apartment # \_\_\_\_\_

City \_\_\_\_\_ Parish \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

**Landowner/Lease Holder #2:**

Name of Landowner / Lease Holder \_\_\_\_\_

**Mailing Address:**

Street Address or P.O. Box \_\_\_\_\_ Unit/Apartment # \_\_\_\_\_

City \_\_\_\_\_ Parish \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

**c. Does the project involve drilling, production, and/or storage of oil and gas?**

- NO (If NO, proceed to Step 13.)
- YES (If YES, review and complete the certification below. You must attach a list of all state and federal laws and rules and regulations dealing with spill prevention and containment. Your signature on step 14 certifies that you are aware of the terms and conditions of each requirement and that you will remain in compliance at all times.)

I, \_\_\_\_\_ hereby certify that I am the \_\_\_\_\_ of \_\_\_\_\_  
(Name of officer) (Name of Office)

\_\_\_\_\_, hereinafter referred to as the Applicant and that I have authority to  
(Full legal name of the entity seeking a permit)

act on behalf of and bind that legal entity, and by my signature below I certify that the information in the application is true and correct to the best of my knowledge, that Applicant has provided a complete list of the requirements for protection of health, safety and the environment, and that Applicant is in full compliance with all applicable safety and environmental regulations as listed on the attached sheet, specifically including when applicable, LAC 43:XIX.111 Diverter Systems and Blowout Preventers.

**Continue to page 8 for step 13.** 

**Step 13 of 16**

**Why are Maps and Drawings required to obtain a permit?**

*Note: The following websites may provide assistance in completing the Vicinity Map:*  
• Sonris on OCM website  
• MapQuest.com  
• Topozone.com

*Note: For additional assistance with specific requirements, refer to the samples provided in this application package.*



**Quality Maps and Drawings are required to process the Joint Permit Application and for Public Notice. They must visually reflect what will be done in the proposed project and are key to the overall evaluation.**

The following Maps and Drawings must be submitted with the Joint Permit Application and must show both existing and proposed conditions.

- **Vicinity Map** - Illustrates access to and the location of the proposed project relative to surrounding areas;
- **Plan View Drawing** - Illustrates an overhead view of the proposed project; and
- **Cross Section Drawing** - Illustrates a side view of the proposed project.

**In general, all Maps and Drawings should be:**

- Legible and clearly labeled on single sided 8½ x 11 size paper; (large drawings that are reduced in size to fit the 8½ x 11 format are not acceptable if the scale is no longer accurate and if the dimensions and details are not clear and easy to read after reproduction in the Public Notice);
- Drawn to scale with the scale identified graphically on each drawing; (if you cannot provide Maps and Drawings to scale, you may submit the dimensions of the proposed and existing features of the work area displayed);
- Black and white **ONLY** (Colored Maps and Drawings will **NOT** be accepted);
- Accurate and reproducible;
- Placement of the north arrow, title, legend and scale bar must be consistent on Maps and Drawings; and
- Information provided in Steps 1 through 12 must be consistent with the Maps and Drawings.

**Inadequate or poor Maps and Drawings are the primary reason for delays in the permitting process. Sample Maps and Drawings are provided with this Joint Permit Application package for your assistance.**

**Link to sample plats:**  
<http://dnr.louisiana.gov/crm/coastmgmt/cup/sampleplats.asp>

**Step 14 of 16**

**Who needs to certify and sign this application?**

*Note: The application must be signed and dated by the applicant who desires to undertake the proposed activity.*

**Read the following information. Print your name, sign and date to certify this application for processing.**

- Application is hereby made for a permit or permits to authorize the work described in this application.
- To the best of my knowledge the proposed activity described in this permit application complies with and will be conducted in a manner that is consistent with the Louisiana Coastal Resources Program.
- I certify that the information in this application is complete and accurate.
- If applicable, I also certify that the declarations in Step 12, notification to landowner(s), are complete and accurate.
- If applicable, I also certify that the declarations in Step 12c, oil spill response, are complete and accurate.
- I will abide by the conditions of the permit or license if issued and will not begin work without the appropriate authorization.
- Permission is granted to the agencies responsible for authorization of this work, or their duly authorized representative, to enter the property site during working hours for inspection purposes.
- If applicable, I authorize the agent identified in Step 2 to act in my behalf as agent for this application and the agent will furnish, upon request, information in support of this application.

ST. MARTIN PARISH- GUY CORMIER

Clearly Print Name of Applicant

Applicant Signature

3 / 17 / 14  
Date

- As the agent, I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

MO SALEH

Clearly Print Name of Authorized Agent

Authorized Agent Signature

3 / 17 / 14  
Date

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up by any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations, or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than 5 years or both.

**Continue to page 9 for step 15.**

**Step 15 of 16**

What fees are required for permit processing and what methods are available for payment?

COE and Local Parish Program fees will be assessed separately at the end of the process.

The following fees apply and must be received in order to process the application.

a. Check  the appropriate box to indicate the fee type: (See the "Glossary" on page 10 for the definitions of terms.)

- \$100.00 - Non-Residential
- \$ 20.00 - Residential

- If your activity involves dredging or filling, OCM will bill you on the basis of \$.04 per cubic yards for residential uses and \$.05 per cubic yards for all other uses.
- Fees may not apply if the Joint Permit Application is being processed by the local Parish.
- Additional fees may be assessed for mitigation processing.

b. Check  the appropriate box to indicate payment method:

- Check/Money Order
- Credit Card (Visa or MasterCard only)
- Electronic Transfer
- Escrow Account

- Make Check/Money Order payable to the Office of Coastal Management.
- To pay by Credit Card, Electronic Transfer or Escrow Account, call OCM at 1-800-267-4019 to provide specific account information or provide account information on a separate sheet of paper and include with application.
- Cash is not accepted.

**Step 16 of 16**

How do I submit the Joint Permit Application and Maps and Drawings for processing?

If your project is in the Galveston or Vicksburg District of the Corps of Engineers, please see page 12.

*Note: Please keep a copy of the completed application for your records.*

To submit this permit application, Maps and Drawings and all supporting documentation, select an option below.



**MAIL:**

Office of Coastal Management  
P.O. Box 44487  
Baton Rouge, LA 70804-4487

If you select the MAIL option, submit the original Joint Permit Application, Maps and Drawings and supporting documentation.



**EXPRESS MAIL:**

Office of Coastal Management  
617 North 3rd Street,  
Suite 1078  
Baton Rouge, LA 70802  
Phone: 225-342-7591

If you select the EXPRESS MAIL option, submit the original copies of the Joint Permit Application, Maps and Drawings and supporting documentation.



**FAX:**

225-342-6760  
Attention: Office of Coastal Management, Joint Permit Application Processing

- Include a cover sheet with the total number of pages; and
- If you select the FAX option, follow-up with one of the mail options to prevent delay if the fax is not legible.
- Payment arrangements should be made prior to faxing your application by calling OCM at 1-800-267-4019.

Continue to page 10 for "Glossary of Terms".



## Glossary of Terms

The following information may provide a better understanding of terms that are used throughout this application. If the terms defined in this section do not help you, please contact OCM at one of the following, 1-800-267-4019 or 225-342-7591.

### Adjacent Landowner

Property owners or lessees whose property is contiguous or shares a common border with that being developed.

### Affected Landowner

The owner of the land on which a proposed activity will occur. If a property has multiple owners with undivided interest, each person owning an interest is considered to be an affected landowner.

### Coastal Use Permit

A permit required by 214.30 of the SLCRMA. The term does not mean or refer to, and is in addition to, any other permit or approval required or established pursuant to any other constitutional provision or statute.

### Compensatory Mitigation

As defined by OCM, replacement, substitution, enhancement, or protection of ecological values to offset anticipated losses of ecological values caused by a permitted activity.

As defined by the COE, compensating for unavoidable adverse impacts to wetlands by restoring areas to wetlands, creating wetlands, or enhancement of wetlands. Most compensatory mitigation involves purchase of mitigation credits in a private mitigation bank. The amount of credits purchased is dependent on the amount of wetland values that would be lost because of the permitted project.

### Cross Section

A side view of a project area illustrating elevations of features such as natural ground; buildings; bulkheads; piers; and depressions such as waterways, ditches, ponds, etc. Cross sections also show side views of proposed work such as dredging and filling.

### Discharge

The placement or movement of fill or excavated material using methods including, but not limited to dragline or backhoe buckets, bulldozers, front loaders, dump trucks, hydraulic dredge pipes, wheel-washing or prop-washing, jetting, etc.

### Dredged Material (Spoil)

Material that is excavated as part of a specific project.

### Ecological Value

The ability of an area to support vegetation, fish and wildlife populations.

### Excavate

To dig out, remove or move earthen material, or to form a cavity or hole including linear features. Methods include, but are not limited to, draglines, backhoes, bulldozers, front loaders, hydraulic dredges, wheel-washing or prop-washing, jetting, etc.

### Fastlands

Lands surrounded by publicly-owned, maintained, or otherwise validly existing levees or natural formations as of January 1, 1979, or as may be lawfully constructed in the future, which levees or natural formations would normally prevent activities, not to include the pumping of water for drainage purposes, within the surrounded area from having direct and significant impacts on coastal waters.

### Fill Material

Any material including, but not limited to, soil, rocks, sand, clay, construction debris, trees, wood chips, broken concrete and asphalt, etc., whose placement replaces any portion of a waterbottom or wetland with dry land or changes the elevation of wetlands or waterbottoms. This material may come from on-site or be imported from an off-site source.

### Mean High Water

The average position (elevation) of the high water mark.

### Mean Low Water

The average position (elevation) of the low water mark.

### Mitigation

All actions taken by a permittee to avoid, minimize, restore, and compensate for ecological values lost due to a permitted activity.

### Non-Residential

Includes all actions that do not meet the requirements for the Residential category.

### Non-Vegetated Waterbottoms

Waterbottoms that lack the presence of rooted vegetation.

### Non-Wet Areas

Any area that has sufficiently dry conditions that indicate hydrophytic vegetation, hydric soils, and/or wetland hydrology are lacking.

### Off-site

Not within or adjoining the area directly modified by the permitted activity and not directly related to implementation of the permitted activity.

### On-site

Within or adjoining the area directly modified by the permitted activity or directly related to implementation of the permitted activity.

### Residential

Any coastal use associated with the construction or modification of one single-family, duplex, or triplex residence or camp. It shall also include the construction or modification to any outbuilding, bulkhead, pier, or appurtenance on a lot on which there exists a single-family, duplex, or triplex residence or camp or on a water body which is immediately adjacent to such lot. Uses which do not fit this definition are non-residential. The Coastal Use Permit application fee for residential projects is \$20.

### Unavoidable Net Loss of Ecological Values

The net loss of ecological value that is anticipated to occur as the result of a permitted/authorized activity, despite all efforts, required by the guidelines, to avoid, minimize, and restore the permitted/authorized impacts.

### Vegetated Waterbottoms

Waterbottoms that exhibit the presence of rooted vegetation.

### Wetlands

For the purposes of §724 (as defined in R.S. 49:21.41), Open water areas or areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances, do support a prevalence of vegetation typically adapted for life in saturated soil conditions.

Continue to page 10 for "Frequently Asked Questions". 



## Frequently Asked Questions

The following questions and answers may assist you during the application process. For an expanded version of frequently asked questions, visit our website at <http://dnr.louisiana.gov/CRM/faq.asp>

### What gives the Office of Coastal Management (OCM) the right to regulate private property?

OCM does not regulate private property. OCM regulates activities that have a direct and significant impact on state public resources. OCM's authority derives from Louisiana Revised Statute 49:214.21 et seq. Visit the legislative website for additional information at <http://www.legis.state.la.us/lss/lrssearch.htm>.

### How does the Joint Permit Application process work?

In general, an application is submitted which details the location and scope of the proposed work. OCM – Permits & Mitigation Division, which serves as a central collection point for the applications, distributes the applications to interested parties for their review and comment. OCM - Permits & Mitigation Division and the commenting agencies review the application for conformance with programmatic requirements and look for ways of minimizing impacts to coastal resources (e.g., vegetated wetlands, bird rookeries, endangered species, etc.). If necessary, negotiations are entered into to find locations, technologies or methods of implementing the project which will accommodate the needs of the permit applicant while conforming with the mandates of the various state and federal agencies. Once consensus is reached an appropriately conditioned permit is issued.

### Who receives a copy of my Joint Permit Application?

The following agencies/offices receive a copy of your application:

- OCM Permit Section;
- Local Programs Section, (if necessary);
- OCM Support Services Staff;
- OCM Field Investigator;
- The Army Corps of Engineers; and
- State Land Office.

### How long does it take to obtain a permit?

The following schedules are offered with the assumption that all of the information required by OCM is included in the application and the plats are adequate, clear and legible. For activities that are exempt from permit requirements, the determination is normally issued in under seven days. Projects that are determined to have no direct or significant impacts to coastal resources are issued in 4 to 10 days depending on location. Authorizations for activities that qualify for a General Permit are issued in 10 to 15 days. For those activities that require full public notice, a minimum of 45 days is required. During review of the permit application, for more complex activities, additional information may be requested. The more promptly the applicant can furnish this information the less time it will require to issue the authorization. The requirement for mitigation of wetland impacts is one of the factors that increases the time required for permit application review, as does coordination with other State agencies for activities affecting resources of concern to that agency.

### How do I check the status of a submitted Joint Permit Application?

Information regarding submitted permits may usually be obtained on the OCM website: <http://sonris.com/direct.asp?server=sonris-www&path=/sonris/cmd/Permit.jsp%3Fsid%3DPROD>.

### How does OCM protect the information that I provide throughout this application?

Information provided on the application is used to evaluate the activity that is proposed for permitting, and this information is generally available for inspection and copying by the public, pursuant to the Louisiana Public Records act. There are some limited exceptions to the public records laws to protect certain types of records or information from public inspection. Please contact our office, **before** you submit any records or information that you would prefer not be available for public inspection or copying. In any case, simply marking a document "CBI" or "confidential business information" will not guarantee that the records or information will be protected from public inspection and copying.

### May I submit a Joint Permit Application to the Parish instead of OCM?

Yes, if your project is located in a parish with an approved Local Coastal Program (Calcasieu, Cameron, Jefferson, Lafourche, Orleans, Plaquemines, St. Bernard, St. James, St. Tammany or Terrebonne) then you may submit your application to either the approved local program or the state office. If you submit the application to the state office, it will be input into the system and reviewed at that time. If you submit your application to the local parish office, then that office will forward the application to the state office to be input into the system and reviewed. Please allow additional time to receive a response if you choose the latter option.

### What other permits may be required?

If your project involves dredging or filling of wetlands you may need a Water Quality Certification from the Department of Environmental Quality. Other approvals may be required but are not limited to the following:

- State Land Office;
- Department of Wildlife and Fisheries;
- Department of Culture, Recreation and Tourism;
- Department of Transportation and Development, and/or
- Department of Health and Hospitals.

These agencies will notify you of their requirements as part of the Joint Public Notice process.

### When I receive my permit from OCM, may I begin work?

Following the determination from OCM, work may begin only after obtaining any necessary permit(s) from the COE, including any required mitigation, and any approvals or permits required any local authority or agency or by any state or federal agency, as may be required by law for said activity or the construction of the referenced project.

### How may I receive an extension for a permit?

If you have not begun work on your project within two years of the date of permit issuance, the initiation period can be extended for an additional two years if you submit a request to OCM no less than sixty days and no more than one-hundred and eighty days before the initial two year period expires. The expiration date can be extended. Follow the same rules. There is an \$80.00 extension fee.

### If I began my project without a permit, what will happen?

OCM processing of any pending Joint Permit Application for the project will be suspended until the violation is resolved. You may be required to remove any structures installed and restore any impacted habitat. You may be subject to fines of up to \$12,000 and may be jailed up to six months. The penalties assessed by the Army Corps of Engineers may be significantly more expensive and more complicated.

### Did I break the law if I have already done some clearing?

A representative from LDNR will perform a field investigation and project evaluation in order to determine the extent of any impacts and if you have violated any laws.

Contact OCM at 1-800-267-4019 for assistance.

### What is Section 10 of the Rivers and Harbors Act?

Section 10 of the Rivers and Harbors Act of 1899 prohibits the obstruction or alteration of navigable water of the United States without a permit from the U.S. Army Corps of Engineers.

### What is Section 404 of the Clean Water Act?

Section 404 of the Clean Water Act prohibits the discharge of dredged or fill material into waters of the United States without a permit from the U.S. Army Corps of Engineers.

### How do I receive additional information on the Joint Permit Application process?

For additional information regarding the Joint Application Process, contact OCM at 1-800-267-4019 or visit the website at: <http://dnr.louisiana.gov/crm/>. You may also contact the Army Corps of Engineers at 504-862-2766 or visit the website at: [www.mvn.usace.army.mil/ops/regulatory](http://www.mvn.usace.army.mil/ops/regulatory).

Continue to page 12 for "Contacts and Additional Landowner Information". 



## Contacts and Additional Landowner Information

If your project is in the Galveston or Vicksburg COE District, submit your application directly to them. See addresses listed below.



### COE District Contact Information:

U.S. Army Corps of Engineers  
Galveston District  
Attention: CESWG-PE-R  
P.O. Box 1229  
Galveston, TX 77553-1229  
Phone:409-766-3930  
Fax:409-766-3931

U.S. Army Corps of Engineers  
Vicksburg District  
Attention: CEMVK-OD-F  
4155 Clay Street  
Vicksburg, MS 39183-3435  
Phone:601-631-5276  
Fax:601-631-5459

### Additional Landowner Information (if necessary):

Adjacent Landowner #5:

Name of Adjacent Landowner

Mailing Address:

Street Address or P.O. Box

Unit/Apartment #

City

Parish

State

Zip

Adjacent Landowner #6:

Name of Adjacent Landowner

Mailing Address:

Street Address or P.O. Box

Unit/Apartment #

City

Parish

State

Zip

Adjacent Landowner #7:

Name of Adjacent Landowner

Mailing Address:

Street Address or P.O. Box

Unit/Apartment #

City

Parish

State

Zip

Adjacent Landowner #8:

Name of Adjacent Landowner

Mailing Address:

Street Address or P.O. Box

Unit/Apartment #

City

Parish

State

Zip



BOBBY JINDAL  
GOVERNOR

State of Louisiana  
DEPARTMENT OF WILDLIFE AND FISHERIES  
OFFICE OF WILDLIFE

ROBERT J. BARHAM  
SECRETARY  
JIMMY L. ANTHONY  
ASSISTANT SECRETARY

**Date** June 18, 2015

**Name** Jamie Schexnayder

**Company** FEMA

**Street Address** 1500 Main St

**City, State, Zip** Baton Rouge, LA 70802

**Project** St. Martin Parish Stephenville Flood Protection & Pump Station Retrofit

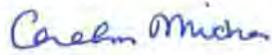
**Project ID**

**Invoice Number** 15061830

Personnel of the Coastal & Nongame Resources Division have reviewed the preliminary data for the captioned project. After careful review of our database, no impacts to rare, threatened, or endangered species or critical habitats within Louisiana's boundary are anticipated for the proposed project. No state or federal parks, wildlife refuges, scenic streams, or wildlife management areas are known at the specified site within Louisiana's boundaries.

The Louisiana Natural Heritage Program (LNHP) has compiled data on rare, endangered, or otherwise significant plant and animal species, plant communities, and other natural features throughout the state of Louisiana. Heritage reports summarize the existing information known at the time of the request regarding the location in question. The quantity and quality of data collected by the LNHP are dependent on the research and observations of many individuals. In most cases, this information is not the result of comprehensive or site-specific field surveys; many natural areas in Louisiana have not been surveyed. This report does not address the occurrence of wetlands at the site in question. Heritage reports should not be considered final statements on the biological elements or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments. LNHP requires that this office be acknowledged in all reports as the source of all data provided here. If at any time Heritage tracked species are encountered within the project area, please contact the LNHP Data Manager at 225-765-2643. If you have any questions, or need additional information, please call 225-765-2357.

Sincerely,

for   
Amity Bass, Coordinator  
Natural Heritage Program

**From:** [Gutierrez, Raul](#)  
**To:** [Schexnayder, Jamie](#)  
**Cc:** [Spann, Tiffany](#); [Holmes, Leschina](#); [Pitts, Melanie](#)  
**Subject:** RE: Request for Solicitation of Views (SOV) for HMGP# 1603-0213 St. Martin Parish Stephenville Flood Protection and Pumping Station Retrofit  
**Date:** Friday, June 19, 2015 2:20:12 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)

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The U.S. Environmental Protection Agency (EPA) has completed your request for a review of the scoping notification and solicitation of views concerning the Stephenville flood protection and pumping station retrofit in St. Martin Parish, Louisiana. The scope of the work for the project includes installing flood control measures and upgrading the existing pumping system. The comments that follow are being provided relative to the EPA's *404(b)(1) Guidelines for Specification of Disposal Sites for Dredged or Fill Material (40 CFR Part 230)* and *Executive Order 11990*.

Our preliminary review revealed that jurisdictional waters of the U.S. do occur on the proposed site. At this time, the EPA recommends coordination with the U.S. Army Corps of Engineers at the New Orleans District Office to verify if jurisdictional waters of the U.S. do occur on site and which permits, if any, are needed. Thanks for the opportunity to review the proposed project.

Raul Gutierrez, Ph.D.  
Wetlands Section (6WQ-EM)  
US EPA Region 6  
(504) 862-2371

Office:  
US Army Corps of Engineers  
New Orleans District  
CEMVN-OD-SC  
Post Office Box 60267  
New Orleans, Louisiana 70160-0267

---

**From:** Schexnayder, Jamie [mailto:[jamie.schexnayder@fema.dhs.gov](mailto:jamie.schexnayder@fema.dhs.gov)]  
**Sent:** Friday, May 29, 2015 11:05 AM  
**To:** [Linda.Hardy@LA.GOV](mailto:Linda.Hardy@LA.GOV); [Amy.E.Powell@usace.army.mil](mailto:Amy.E.Powell@usace.army.mil); Gutierrez, Raul; [cmichon@wlf.la.gov](mailto:cmichon@wlf.la.gov); [Karl.Morgan@la.gov](mailto:Karl.Morgan@la.gov)  
**Cc:** Spann, Tiffany; Holmes, Leschina; Pitts, Melanie  
**Subject:** Request for Solicitation of Views (SOV) for HMGP# 1603-0213 St. Martin Parish Stephenville Flood Protection and Pumping Station Retrofit

Security  
May 29, 2015  
Agency

70802

U.S. Department of Homeland  
Federal Emergency Management  
FEMA-DR 1603/1607 LA  
Louisiana Recovery Office  
1500 Main St., Baton Rouge, LA



# FEMA

MEMORANDUM TO: See Distribution

SUBJECT: Scoping Notification/Solicitation of Views

St. Martin Parish Stephenville Flood Protection and Pumping Station Retrofit,  
HMGP# 1603-0213, FEMA-1603-DR-LA

To Whom It May Concern:

The Department of Homeland Security's Federal Emergency Management Agency (FEMA) is mandated by the U.S. Congress to administer Federal disaster assistance pursuant to the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), PL 93-288, as amended. Section 404 and Section 406 of the Stafford Act authorizes FEMA's Hazard Mitigation Program to provide funds to states and local governments to implement long-term hazard mitigation measures after a major disaster declaration. FEMA is considering providing Hazard Mitigation Grant Program funding for the attached project in relation to Hurricanes Katrina and Rita (FEMA-1603/1607-DR-LA).

Please review the attached project description and proposed project plans to determine whether your office has any objections to the proposed project and whether any permits from your office would need to be obtained. The applicant is the St. Martin Parish Government.

This project is the applicant's request to implement a phased flood protection project and mitigation project. The applicant proposes to install flood control measures and upgrade the existing pumping system. The project site is located at Latitude 29.7641 and Longitude -91.1735, Stephenville, Louisiana.

To ensure compliance with the National Environmental Policy Act (NEPA), Executive Orders (EOs), and other applicable Federal regulations, FEMA-EHP will be preparing an Environmental Assessment (EA). To assist us in preparation of the EA, FEMA-EHP requests that your office review the attached documents for a determination as to the requirements of any formal consultations, regulatory permits, determinations, or authorizations.

We would appreciate your comments on this project within thirty (30) days. If we do not receive comments from you within this time period, we will assume that you have no concerns or issues with the proposed project. If appropriate, FEMA will add the condition that the applicant will be required to obtain applicable permits from your office.

Comments may be emailed to [jamie.schexnayder@fema.dhs.gov](mailto:jamie.schexnayder@fema.dhs.gov) or mailed to the attention of Jamie Schexnayder, Environmental Department, at the address above. For questions regarding this matter, please contact Jamie Schexnayder, Environmental Protection Specialist

at (225) 200-4961.

Sincerely,

Tiffany Spann-Winfield,  
Deputy Environmental Liaison Officer, FEMA LRO  
FEMA 1603/1607-DR-LA

Distribution: LDEQ, USEPA, LDWF, LDNR, USACE

Attachment: Scope of Work, Project Plans

Jamie Schexnayder, CFM  
*Environmental Protection Specialist*  
FEMA Region VI – LRO  
1500 Main Street  
Baton Rouge, LA 70802  
BB (225) 200-4961  
[jamie.schexnayder@fema.dhs.gov](mailto:jamie.schexnayder@fema.dhs.gov)



**Louisiana Ecological Services Office****ESA Technical Assistance Form**General Information**Name:** FEMA**Point of Contact:** JAMIE SCHEXNAYDER**Address:** 1500 MAIN STREET**City:** BATON ROUGE**State:** Louisiana**Zip Code:** 70802**Phone Number 1:** 225-200-4961**Phone Number 2:** \_\_\_\_\_**Email Address:** JAMIE.SCHEXNAYDER@FEMA.DHS.GOVProposed Project Information**Project Reference ID:** 4984**Project Latitude:** 29.7641 **Project Longitude:** -91.1735**Project Parish(es):** Saint Martin**Project Description:** Scope of work for Stephenville Flood Protection and Pumping Station Retrofit Project:

The proposed project area includes the Stephenville/East Bayou Estates Subdivision located in the southern portion of St. Martin Parish in Stephenville, Louisiana, at Latitude 29.7641 and Longitude -91.1735. The proposed area incurs flooding frequently due to backwater flooding from the Atchafalaya River during heavy rain fall, coastal storm surge, tides, and sea level rise from the Gulf of Mexico, which quickly inundates the Bayou Estates Subdivision offering little capacity for proper drainage. The proposed project is to implement a phased flood protection project and mitigation project to: 1) Prevent flooding of streets and residences from flowing inverse in existing catch basins and outfalls when waterways rise; 2) Inhibit intrusion of water in the wastewater treatment system for the community when waterways rise; and 3) Improve the performance and protect the existing pumping station located in the community by elevating and increasing pumping capacity. The proposed project would provide protection against the 100-year (1%) flood for approximately 826 structures in the community.

To address these issues, the Applicant proposes to install flood control measures and upgrade the existing pumping system. The following project improvements to protect



## Louisiana Ecological Services Office

### ESA Technical Assistance Form

Bayou Estates Subdivision from flooding are proposed as part of this project which includes:

- 1) Installing 1,000 linear feet of PVC sheet piles with the highest elevation at +6.0NAVD along the northern and eastern portion of the outer bank of the drainage canal;
- 2) Assembling one (1) new roller and or, 30' foot hinged aluminum floodgate along the north bank of Bayou Estates Subdivision;
- (3) Installing one (1) new drainage pump station with two (2) – 50 cubic feet per second (CFS) pumps and a generator to create a forced drainage area under storm events;
- (4) Rebuilding and elevating the existing drainage pump station at the entrance to the subdivision;
- (5) Repairing existing canal banks throughout the development;
- (6) Removing the existing drain pipes from the outer canals and installing new pipes to allow storm water to be directed towards the drainage pump stations;
- (7) Constructing a 250' foot earthen berm on the western edge of the subdivision and behind the homes with low ground elevation to prevent storm water from entering along the western boundary of the subdivision;
- (8) Installing six (6) short-run, low earthen berms along portions of the subdivision adjacent to Dawn Drive and Stephenville Road;
- (9) Minor upgrades and enlargements to several catch basins and culverts throughout the subdivision.

Based on the information provided, the proposed project is not an activity that would affect a federally listed threatened or endangered species; nor is there proposed or designated critical habitat present within this Parish.

Therefore, a "no effect" conclusion is appropriate. No further ESA coordination with the Service is necessary for the proposed action, unless there are changes in the scope or location of the proposed project or the project has not been initiated one year from the date of this letter.

If the proposed project has not been initiated within one year, follow-up coordination via this website should be accomplished prior to making expenditures because our threatened and endangered species information is updated annually. If the scope or location of the proposed project is changed, coordination via this website should occur as soon as such changes are made.

This finding completes project review by the Service for effects to Federal trust resources under our jurisdiction and currently protected by the ESA.

Please keep a copy of this pre-development coordination for your records. Do not send it to the Lafayette ES Office.

If you have additional questions, please contact Louisiana ES Office Biological Science Technician at 337/291-3100 for further assistance.



**Louisiana Ecological Services Office**

**ESA Technical Assistance Form**

**Project Type: Non-Emergency FEMA Project**

Does the project propose to obtain, remodel, refurbish, or rehabilitate existing structures in such a way that does not significantly alter the present capacity or use, and does not alter surrounding land areas that were previously undisturbed? **Yes**

*Municipal and Regional Planners*

June 2, 2011

Mr. Kevin Norton  
US DEPARTMENT OF AGRICULTURE  
NATURAL RESOURCES CONSERVATION SERVICE  
3737 Government Street  
Alexandria, LA 71302

RE: St. Martin Parish Government  
Parish Implemented Recovery Program  
Bayou Estates Flood Protection  
Environmental Review Record  
File No. 608-01

Dear Mr. Norton:

On behalf of the St. Martin Parish Government, we are preparing an Environmental Review Record as required for Community Development Block Grant recipients under the Housing and Community Development Act of 1974.

The St. Martin Parish Government is in the process of receiving funding under this program to provide drainage improvements in the Bayou Estates Subdivision. This residential area is located in a section of the Stephenville community in lower St. Martin Parish. This area of the Parish experienced flooding with the increased tides and rains of Hurricane Gustav. The proposed project will include installing sheet piles along drainage canal banks, a floodgate, a new drainage pump station with two pumps and a generator on site, repairing existing infrastructure, and constructing a berm to protect the western edge of the subdivision.

The project activities are described in more detail on the enclosed project description. Also attached for your use is a project map depicting the specific location of these proposed drainage improvements. All of the planned activities are to occur within the corporate limits of the Village.

In order to receive financial assistance, this project needs to be evaluated in accordance with procedures for the protection of farmlands under provisions of the Farmland Protection Act of 1981 (as amended) and other associated regulations.

We are requesting that the Natural Resource Conservation Service complete the enclosed Farmland Conversion Impact Rating Form [AD-1006 (10/83)] as it pertains to this project.

We are requesting your review and comments on this project. Because of the time limitations to complete this process, we would appreciate your comments by July 5, 2011.

Please forward all correspondence and inquiries pertaining to this request directly to our office. We appreciate your assistance in this review.

Sincerely,

MINVIELLE & ASSOCIATES, INC



RICHARD MINVIELLE, AICP

Enclosure(s)

cc: Mr. Guy Cormier, Parish President  
608rm77

United States Department of Agriculture



Natural Resources Conservation Service  
3737 Government Street  
Alexandria, LA 71302

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

June 13, 2011

Mr. Richard Minvielle, AICP  
Minvielle & Associates, Inc.  
206 South State Street  
Abbeville, LA 70510-5918

RE: St. Martin Parish Government, Parish Implemented Recovery Program, Bayou Estates  
Flood Protection, Environmental Review Record File No. 608-01

Dear Mr. Minvielle:

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

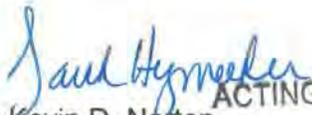
Projects are subject to FPPA requirements if they may irreversibly convert farmland (directly or indirectly) to nonagricultural use and are completed by a federal agency or with assistance from a federal agency. For the purpose of FPPA, farmland includes prime farmland, unique farmland, and land of statewide 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. Enclosed is the AD-1006 Farmland Conversion Impact Rating Form with our agencies information completed.

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.

  
ACTING FOR  
Kevin D. Norton  
State Conservationist

Attachment

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An Equal Opportunity Provider and Employer

U.S. Department of Agriculture

## FARMLAND CONVERSION IMPACT RATING

<b>PART I (To be completed by Federal Agency)</b>		Date Of Land Evaluation Request <u>6/2/10</u>			
Name Of Project <u>St. Martin Parish Government</u>		Federal Agency Involved <u>U. S. Department of Housing, HUD</u>			
Proposed Land Use <u>Bayou Estates Flood Protection</u>		County And State <u>St. Martin Parish, Louisiana</u>			
<b>PART II (To be completed by NRCS)</b>		Date Request Received By NRCS <u>6/7/2011</u>			
Does the site contain prime, unique, statewide or local important farmland? (If no, the FPPA does not apply -- do not complete additional parts of this form).		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Acres Irrigated	Average Farm Size
Major Crop(s):	Farmable Land In Govt. Jurisdiction Acres: %	Amount Of Farmland As Defined In FPPA Acres: %		Date Land Evaluation Returned By NRCS <u>6/13/11</u>	
Name Of Land Evaluation System Used	Name Of Local Site Assessment System				
<b>PART III (To be completed by Federal Agency)</b>		Alternative Site Rating			
		Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	0.0				
B. Total Acres To Be Converted Indirectly	0.0				
C. Total Acres In Site	0.0	0.0	0.0	0.0	0.0
<b>PART IV (To be completed by NRCS) Land Evaluation Information</b>					
A. Total Acres Prime And Unique Farmland					
B. Total Acres Statewide And Local Important Farmland					
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted					
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value					
<b>PART V (To be completed by NRCS) Land Evaluation Criterion</b>					
Relative Value Of Farmland To Be Converted (Scale of 0 to 100 Points)					
		0	0	0	0
<b>PART VI (To be completed by Federal Agency)</b>		Maximum Points			
Site Assessment Criteria (These criteria are explained in 7 CFR 658.5(b))					
1. Area In Nonurban Use					
2. Perimeter In Nonurban Use					
3. Percent Of Site Being Farmed					
4. Protection Provided By State And Local Government					
5. Distance From Urban Builtup Area					
6. Distance To Urban Support Services					
7. Size Of Present Farm Unit Compared To Average					
8. Creation Of Nonfarmable Farmland					
9. Availability Of Farm Support Services					
10. On-Farm Investments					
11. Effects Of Conversion On Farm Support Services					
12. Compatibility With Existing Agricultural Use					
<b>TOTAL SITE ASSESSMENT POINTS</b>		160	0	0	0
<b>PART VII (To be completed by Federal Agency)</b>					
Relative Value Of Farmland (From Part V)		100	0	0	0
Total Site Assessment (From Part VI above or a local site assessment)		160	0	0	0
<b>TOTAL POINTS (Total of above 2 lines)</b>		260	0	0	0
Site Selected:		Date Of Selection		Was A Local Site Assessment Used? Yes <input type="checkbox"/> No <input type="checkbox"/>	
Reason For Selection:					

(See instructions on reverse side)

This form was electronically produced by National Production Services Staff

Form AD-1006 (10-83)



# FEMA

U.S. Department of Homeland Security  
Federal Emergency Management Agency  
FEMA-1603/1607 -DR-LA  
FEMA Louisiana Recovery Office  
Environmental/Historic Preservation  
1500 Main Street  
Baton Rouge, LA 70802

May 21, 2015

Pam Breaux  
State Historic Preservation Officer  
Department of Culture, Recreation & Tourism  
P.O. Box 44247  
Baton Rouge LA 70804

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

*Pam Breaux* 5-26-15  
Pam Breaux Date  
State Historic Preservation Officer

**RE: Section 106 Review Continuing Consultation, Hurricane Katrina, FEMA-1603-DR-LA**

**Applicant:** St. Martin Parish Government

**Undertaking:** Stephenville Flood Protection and Retrofit, St. Martin Parish, Louisiana  
(29.7641, -91.1735) HMA-1603-0213

**Determination: No Historic Properties Affected**

Dear Ms. Breaux:

The Federal Emergency Management Agency (FEMA) will be providing funds authorized under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, P.L. 93-288, as amended, in response to the following major Disaster Declarations:

FEMA-1603-DR-LA, dated August 29, 2005, as amended.

FEMA, through its 404 Hazard Mitigation Assistance Program (HMGP), proposes to fund the Stephenville Flood Protection and Retrofit (Undertaking) as requested by St. Martin Parish Government (Applicant). FEMA is initiating Section 106 review for the above referenced properties in accordance with the Louisiana State-Specific Programmatic Agreement among FEMA, the Louisiana Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP), the Louisiana State Historic Preservation Officer of the Department of Culture Recreation and Tourism (SHPO), the Alabama-Coushatta Tribe of Texas (ACTT), the Chitimacha Tribe of Louisiana (CTL), the Choctaw Nation of Oklahoma (CNO), the Jena Band of Choctaw Indians (JBCI), the Mississippi Band of Choctaw Indians (MBCI), the Seminole Tribe of Florida (STF), and the Advisory Council on Historic Preservation (ACHP) regarding FEMA's Hazard Mitigation Grant Program (2011 LA HMGP PA) dated January 31st, 2011 and providing the State Historic Preservation Office with the opportunity to consult on the proposed Undertaking. Documentation in this letter is consistent with the requirements in 36 CFR §800.11(d).

### Project Background

Situated in the southern portion of St. Martin Parish, with mostly low-lying wetlands and a gently sloping coastline within close proximity to the Gulf of Mexico, Stephenville, Louisiana incurs flooding frequently due to backwater flooding from the Atchafalaya River during heavy rain fall, and coastal storm surge, tides, and sea level rise from the Gulf of Mexico, which quickly inundates the Bayou Estates Subdivision offering little capacity for proper drainage (Figure 1). Typically,

MAY 21 2015

ARCHAEOLOGY

these conditions result with water in canals adjacent to the subdivision rising an average of several feet, which causes the streets and homes to be flooded. To protect the community of Stephenville from future flooding, the St. Martin Parish Government proposes to implement a phased flood protection and retrofit mitigation project to:

- 1) Prevent flooding of streets and residences from water flowing inverse in existing catch basins and outfalls when waterways rise;
- 2) Inhibit intrusion of water into the wastewater treatment system for the community when waterways rise; and
- 3) Improve the performance and protect the existing pumping station located in the community by elevating and increasing pumping capacity.

The applicant previously consulted with the State Historic Preservation Office regarding this Undertaking on June 2, 2011, (SHPO concurred on July 7, 2011); however, they did not consult with any Tribal governments. Since that time, a more detailed Scope of Work (SOW) for the project has been defined. As such, FEMA is re-initiating consultation for the Undertaking.

### **Description of the Undertaking**

To address rising water issues, the Applicant proposes to install flood control measures and upgrade the existing pumping system. The following project improvements to protect Bayou Estates Subdivision from flooding are proposed as part of this project which includes:

1. Installing 1000 linear feet of PVC sheet piles with the highest elevation at +6.0 NAVD along the northern and eastern portion of the outer bank of the drainage canal (Figure 3);
2. Assembling one new roller and or, 30' foot hinged aluminum floodgate along the north bank of Bayou Estates Subdivision (Figure 4);
3. Installing one new drainage pump station with two (2) -50 cubic feet per second (CFS) pumps and a generator to create a forced drainage area under storm events (Figure 5);
4. Rebuilding and elevating the existing drainage pump station at the entrance to the subdivision (Figure 6);
5. Repairing existing canal banks throughout the development (Figure 7);
6. Removing the existing drain pipes from the outer canals and installing new pipes to allow storm water to be directed towards the drainage pump stations;
7. Constructing a 250' foot earthen berm on the western edge of the subdivision and behind the homes with low ground elevation to prevent storm water from entering along the western boundary of the subdivision (Figure 8);
8. Installing six (6) short-run, low earthen berms along portions of the sub-division adjacent to Dawn Drive and Stephenville Road;
9. Minor upgrades and enlargements to several catch basins and culverts throughout the subdivision.

### **Area of Potential Effects (APE)**

This letter serves as consultation for the APE in accordance with Stipulation VII.B of the 2011 HMGP PA. The APE for the undertaking includes the entire Stephenville/East Bayou Estates Subdivision. It incorporates both direct and indirect effects and is inclusive of both archaeological and standing structure concerns. The APE is approximately 113 acres (45.6 hectares) in size, and includes the entire Bayou Estates Subdivision, which includes approximately 250 residences and

incorporates areas for stand-up and lay down (see Figure 2). The project boundary is defined by Highway 70 to the east, Bayou Milhomme to the west and south, and dense cypress swamp to the north.

### **Identification and Evaluation**

Historic Properties within the APE were identified based on FEMA's review of the National Register of Historic Places (NRHP) database, the Louisiana Cultural Resources Map, historic map research, and a site visit conducted May 1, 2015 by FEMA Historic Preservation staff. This data was evaluated by FEMA using the National Register (NR) Criteria.

FEMA HP staff reviewed the early St. Martin Parish map archives to obtain information about the APE. The area does not appear on most early maps, and on those it does appear, the project location is not shown any detail. The APE is included on the LaTourrette map of 1848 and the Bayley Map of 1853; there are no plantations or any other development visible within the project area. The first map to show the project area in any detail is the 1945 US Geological Survey Map. There is no development within the APE, and the area is shown as being wet. A road through the project area appears to have been constructed by 1953, but there is still no development within the APE. A small number of buildings are visible within the APE along Parish Road 70 after 1972, but residential development does not begin until the late 1970s to early 1980s. By 1990, the Bayou Estates subdivision is still only partially developed. The subdivision was largely built out by the early 2000s, although undeveloped lots are still present.

#### *Standing Structures:*

A reconnaissance level pedestrian survey of the project Area of Potential Effect was conducted on May 1, 2015, by FEMA Environmental and Historic Preservation Staff (FEMA EHP Staff). The reconnaissance was undertaken to verify whether there were cultural, architectural, and engineering resources 45 years of age or older within the APE.

The project area contains both residential and commercial buildings dating from the initial construction of Bayou Estates Subdivision. The buildings identified during the reconnaissance survey represent a variety of styles, types, and uses. The approximately 250 properties observed primarily include single family residential buildings and boat houses, although, two (2) commercial buildings (a boat shop business), and one (1) former church building converted into a residence were also observed. The buildings identified date from the initial construction of Bayou Estates Subdivision from the late 1970s through the early 2000s.

The approximately 250 properties observed during reconnaissance were reviewed by FEMA Historic Preservation (HP) Staff to determine which, if any, of the identified resources required further documentation to make definitive Determinations of Eligibility (DOE) according to National Register of Historic Places criteria. However, during our site visit no historic properties were identified within the proposed project APE. Based on our site investigation and background research, FEMA HP Staff has determined that none of the approximately 250 residences or structures located within the proposed project APE are within a listed or eligible National Register Historic District, nor are they located within the view-shed of a property individually listed in the NRHP, and is neither individually eligible for listing in the National Register of Historic Places, or contributes to a National Register listed or eligible Historic District. All properties located within

the project APE are less than forty-five (45) years of age and do not meet the criteria to qualify for NRHP listing under Criterion Consideration G.

*Archaeology:*

FEMA HP Staff consulted the US Department of Agriculture's interactive SoilWeb to determine the soil types the APE. The soils within the APE are Fausse, vertic endoquets, typically found in flood plains. FEMA HP Staff also consulted the SHPO's Cultural Resources map and determined that there are no known archaeological sites within 1 mile of the APE.

The Stephenville/Bayou Estates community is built on swamp and wetland that was completely and constantly inundated historically. The land currently occupied by the APE appears on historic Quad maps as swampy/marshy areas, and was only recently developed. Neighborhood residents stated that the development was constructed on deposited soils obtained from the dredging associated with the creation of the canals. One resident stated that most homeowners then added 2 to 3 feet more fill on top of that.

During the May 1, 2015 site visit, FEMA HP Staff completed 2 soil cores:

1. Soil Core #1 (29.76932, -91.16768): SC1 was excavated at the location of the proposed new pump station, discharge line, and earthen berm. Standing water covered the portion of this property closest to the canal, and the water table was high within the general area. The soil core extended from the surface to approximately 60 cmbs and consisted of a single stratum of dark greyish brown (10YR 4/2) clay. The stratigraphy at SC1 showed no evidence of archaeological deposits and is consistent with soils composed of dredged material and/or regularly inundated soils.
2. Soil Core #2 (29.76433, -91.17348): SC2 was excavated along the bank of the existing pump station canal at the entrance of Stephenville. The project proposes to widen the existing canal, to elevate the current pump, and to add a second elevated pump. The soil core was excavated from the surface to approximately 30 cmbs and consisted of a single stratum of very dark greyish brown (10YR 3/2) silty clay. The stratigraphy at SC2 showed no evidence of archaeological deposits and is consistent with soils composed of dredged material.

All work for this undertaking will take place in previously disturbed areas, within existing ROWs, and/or created canals. Based on FEMA's historic map research, discussions with residents, and soil cores, the APE appears to be comprised of created land, with only very minimal potential for archaeological deposits. Additionally, neither background research nor archaeological investigation identified information indicating the presence of historic properties that may a religious and cultural significance to Indian Tribes. In conclusion, FEMA finds that it is unlikely that any intact archaeological deposits or sites of religions and cultural significance to Tribes are within the APE.

**Assessment of Effects**

Based on the aforementioned identification and evaluation, FEMA has determined that there are no historic properties as defined in 36 CFR 800.16(1) within the APE. However, since additional soils

will be needed from an, as yet undefined source, outside the APE for the construction of the earthen berms, the following standard conditions will be applied to the grant for this undertaking:

1. Any fill or borrow material used must be sourced from areas that do not contain any buried cultural materials (e.g. brick foundations, prehistoric Indian artifacts, human burials, and the like).
2. If human bone or unmarked grave(s) are present within the project area, compliance with the Louisiana Unmarked Human Burial Sites Preservation Act (R.S. 8:671 et seq.) is required. The applicant shall notify the law enforcement agency of the jurisdiction where the remains are located within twenty-four hours of the discovery. The applicant shall also notify FEMA and the Louisiana Division of Archaeology at 225-342-8170 within seventy-two hours of the discovery.
3. If during the course of work, archaeological artifacts (prehistoric or historic) are discovered, the applicant shall stop work in the vicinity of the discovery and take all reasonable measures to avoid or minimize harm to the finds. The applicant shall inform their Public Assistance (PA) contacts at FEMA, who will in turn contact FEMA Historic Preservation (HP) staff. The applicant will not proceed with work until FEMA HP completes consultation with the SHPO, and others as appropriate.

Therefore, FEMA has determined a finding of **No Historic Properties Affected** for this Undertaking and is submitting this Undertaking to you for your review and comment. FEMA requests your comments within 15 days.

We look forward to your concurrence with this determination. Should you have any questions or need additional information regarding this Undertaking, please contact me at (504) 247-7771 or [jerame.cramer@fema.dhs.gov](mailto:jerame.cramer@fema.dhs.gov), or Gail Lazaras, Lead Historic Preservation Specialist at (504) 715-6076 or [gail.lazaras@fema.dhs.gov](mailto:gail.lazaras@fema.dhs.gov), or Jason Emery, Lead Historic Preservation Specialist at (504) 570-7292 or [jason.emery@fema.dhs.gov](mailto:jason.emery@fema.dhs.gov).

Sincerely,

**JERAME J  
CRAMER**

Jeramé J. Cramer  
Environmental Liaison Officer  
FEMA-DR-1603-LA, FEMA-DR-1607-LA

Digitally signed by JERAME J CRAMER  
DN: c=US, o=U.S. Government, ou=Department  
of Homeland Security, ou=FEMA, ou=People,  
cn=JERAME J CRAMER,  
0.9.2342.19200300.100.1.1=0972893910.FEMA  
Date: 2015.05.21 14:23:46 -05'00'

CC: File  
Division of Archaeology Reviewer  
Division of Historic Preservation Reviewer  
State Historic Preservation Office

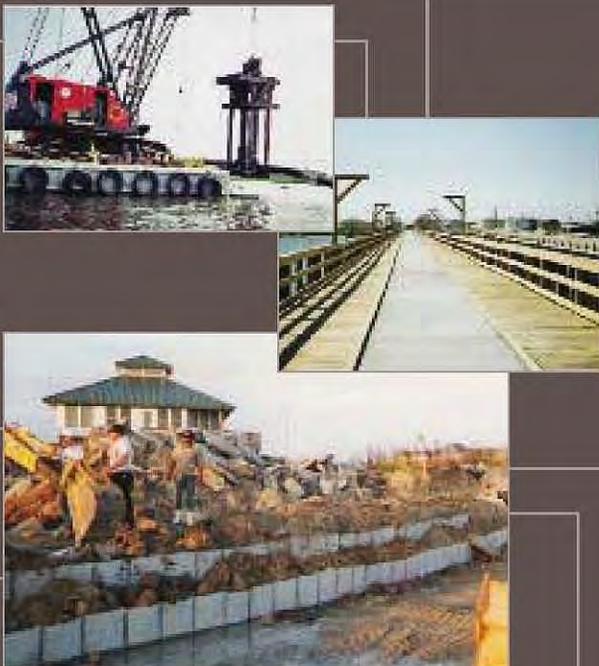
Enclosures

**APPENDIX D**  
**HYDROLOGIC AND HYDRAULIC**  
**STUDY**



PROFESSIONAL  
ENGINEERING AND  
ENVIRONMENTAL  
CONSULTANTS, INC.

Engineers | Planners | Environmental Consultants



**Stephensville Mitigation Project  
in  
St. Martin Parish, Louisiana**

**State Project Number: 1603-099-0004**

**FEMA Project Number : 213**

# **STEPHENSVILLE MITIGATION PROJECT**

**LOCATED IN  
ST. MARTIN PARISH, LOUISIANA**

**FOR**

**ST. MARTIN PARISH GOVERNMENT**

**301 West Port Street  
St. Martinville LA 70582**

**JUNE 2013**

**PREPARED BY:**



**P**ROFESSIONAL  
**E**NGINEERING AND  
**E**NVIRONMENTAL  
**C**ONSULTANTS, INC.

---

ENGINEERS, PLANNERS AND ENVIRONMENTAL CONSULTANTS  
1065 Muller Parkway, Suite B, Westwego, LA 70094

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## **Stephensville Mitigation Project in St. Martin Parish, Louisiana**

**Project Name: Stephensville Mitigation Project State Project Number: 1603-099-0004**  
**FEMA Project Number : 213**

### **Project Description**

St. Martin Parish is considered a coastal parish although it is bordered by Terrebonne and St. Mary Parish to the south and not the Gulf of Mexico. It is susceptible to hurricanes, tropical storms, and coastal flooding. This area is located approximately three miles north of Morgan City, La. immediately east of La. Hwy. 70 in Lower St. Martin Parish. The parish consists of two separate and distinct portions with the north and larger section immediately east of Lafayette, La.

### **Existing Problem:**

The proposed mitigation project will provide protection to the Stephensville Community located in the southern portion of St. Martin Parish. The community incurs flooding on a regular basis as a result of backwater flooding from the Atchafalaya River and coastal storm surge from the Gulf of Mexico. It is also prone to flooding resulting from heavy stormwater events north of the community in the Lake Verret watershed, i.e., the Terrebonne Basin, which originates in Pointe Coupee Parish and flows through Lake Verret (Assumption Parish) and Lake Palourde (St. Martin, Assumption, and St. Mary Parishes). The attached rain gauge data shows the flooding events that has taken place in 2010.

### **Summary of Flooding Events in the Stephensville Area**

Stephensville, Louisiana has a unique topography of mostly low-lying wetlands with a gently sloping coastline in close proximity to the Gulf of Mexico which makes it vulnerable to flooding. Additionally, the Mississippi and Atchafalaya rivers are constantly looking to change course and

are prone to overflowing their banks. Flooding can occur due to rainfall, storm surge, tides, sea-level rise, and wind direction which can quickly inundate this area offering little capacity for drainage. The Atchafalaya River's flood stage is only a mere four feet about sea level at Morgan City.

The majority of the flood events in the Stephenville area have been the direct result of significant rainfall. These rainfall events may be in conjunction with tropical weather, or just simply intense rainfall. We have seen the impacts on this region due to rainfall. Combined with storm surge, the results can be devastating. This area is affected by a major storm every 2.71 years and directly hit by a hurricane every 7.83 years on average.

Table of Tropical Systems that Affected the Stephenville Area from 1985-Present

Tropical System	Location	Date	Tide (m)	Rainfall (mm)
			Ht above normal	Storm total
Hurricane Juan	Morgan City	October 1985	1.5	241.6
Hurricane Andrew	Morgan City	August 1992	2.0	139.6
T.S. Hermine	Morgan City	September 1998	n/a	25
T.S. Isidore	Morgan City	September 2002	1.8	>100
Hurricane Lili	Morgan City	September 2002	3.23	150
T.S. Bill	Morgan City	June 2003	1.7	160
T.S. Matthew	Morgan City	October 2004	1.8	239
Hurricane Gustav	Morgan City	September 2008	2.7	168
T. S. Lee	Morgan City	September 2011	1.5	260
Hurricane Isaac	Morgan City	August 2012	2.0	278

*\*Data obtained from the National Oceanic and Atmospheric Administration, and the National Weather Service.*

Flooding in the community occurs when Bayou Long reaches elevations of approximately **4.0 ft. MSL**. The flooding situation occurs with each spring's high-water stage of the Atchafalaya River as well as when rising waters generated by Gulf hurricanes with prevailing south winds (landfall west of central Louisiana) push backwards into the lower Atchafalaya River and

Bayous Chene, Schafer, Black, and Boeuf. These waters in turn raise still water levels in Lake Palourde, Bayou Milhomme, and Bayou Long.

**Proposed Improvements:**

To better protect the community a phased project implementation will be provided which will include:

1. Prevent flooding from waterways of streets and structures from water flowing reversed in existing catch basins and outfalls when waterways rise.
2. Prevent intrusion of water into the wastewater treatment system for the community when waterways rise.
3. Improve the performance and protect the existing pumping station located in the community by elevating and increasing pumping capacity.

**The project requires the performance of the following services and tasks:**

1. Topographic survey:  
The topographic survey will determine the elevation of outfalls of the drainage system; wastewater treatment systems components and existing conditions of the pumping station.
2. Geotechnical work:  
Geotechnical work will provide the necessary information to complete the preliminary and final design.
3. Hydraulics and hydrology study (H&H Study):  
A hydraulics and hydrology study will be completed to determine frequency, elevations, runoff and damages associated with flooding.
4. Preparing technical report:  
The technical report will identify the location and quantify all affected outfalls of the drainage system, wastewater treatment systems components; and existing conditions of the pumping station located in the community.
5. Preliminary plans preparation
6. Obtaining all environmental permits
7. Final design of a plan to protect the community of Stephenville.
8. Engineer's estimate of proposed project cost
9. Construction of proposed techniques determined in the design phase to protect the community of Stephenville

**Project Timeline and Status (Percentage complete/per phase):**

- |                                                |           |
|------------------------------------------------|-----------|
| 1. Topographic survey:                         | Completed |
| 2. Geotechnical work:                          | Completed |
| 3. Hydraulics and hydrology study (H&H Study): | Completed |
| 4. Technical report:                           | Completed |

5. Preliminary plans preparation:	Completed
6. Obtaining all environmental permits	<b>September 2013</b>
7. Final design:	<b>Completed</b>
8. Engineer's estimate of proposed project cost:	<b>Completed</b>
9. Projected/Actual Bid Date:	<b>October 2013</b>
10. Notice to Proceed projected/issued:	<b>November 2013</b>
11. Estimated Construction start date:	<b>December 2013</b>
12. Estimated time frame to complete work:	<b>September 2014</b>

Based on the surveying, geotechnical information and existing pump station condition, the following improvements are proposed by PEEC:

**ALTERNATIVE SOLUTION ONE (Basic Improvements):**

1. Provide a water tight system for all sewer manholes to prevent water from intruding the wastewater treatment system
2. Install a flap gate at each of the outfalls identified on the drawings to prevent flooding from water flowing reversed in existing catch basins and outfalls when waterways rise.
3. The existing pump station must be increased in pumping capacity. The existing equipment is currently located below the base flood elevation and will be moved to one platform above the base flood elevation. The pumping capacity will be improved by lining the sump area, reinforcing walls with sheet piling and replacing the existing pump with a larger capacity pump.

**ALTERNATIVE SOLUTION TWO (Protection up to Elevation +4.0 MSL):**

Another feasible project would be to provide a flood protection up to elevation +4.0 MSL within the area which will include the above alternative solution one plus the items described below:

1. Installing sheet piles along the north canal and most eastern canal
2. Installing a new drainage pumping station on the eastern canal side to create a forced drainage area under storm events
3. Installing a 30 feet wide floodgate on the north side of Bayou Estate.
4. Constructing earthen berm along the western edge of the subdivision and behind the homes with low ground elevation.
5. Repairing the existing drainage pump station at the entrance to the subdivision,
6. Modifying the drain pipes that flow toward the north end of the subdivision

**The above alternative solution will provide flood protection up to Elevation +4.0 MSL** and will prevent the water from entering the sewer system. The proposed project will prevent the water from entering the houses. PEEC has completed the Hydrologic and Hydraulic (H&H) study, and has obtained the necessary topographic surveys; and the geotechnical information for the area. The new drainage pump station is designed to handle the **25 year rainfall intensity** in the area when the proposed flood gate is closed.

The H&H study has been submitted to the Parish for review and approval. The environmental permitting and review will be completed after the proper local, state, and federal agencies review and approve the final design work.

PEEC has prepared a complete set of plans and specifications for this project. A detailed cost summary has also been prepared.

**The proposed plan has a service life expectancy of 50 years.**

**The proposed Improvements will not have any adverse effect on the area and the surrounding environment.**



This report is certified by: \_\_\_\_\_

Mo Saleh, P.E.  
Civil and Environmental  
Engineer  
LA PE Number 23806

**Included in this report:**

1. Opinion of probable cost
2. Hydraulics and hydrology study (H&H Study)
3. House photos prior to flooding
4. Proposed Sheet Piles
5. Gauge Reading
6. Water Level reading
7. LIDAR map
8. Canal surveying drawings
9. Opinion of probable cost

**ATTACHMENT:**

- Final Drawings
- Final contract documents and Specifications
- Final opinion of probable cost
- Stephenville Depth Damage analysis

**DETAILED  
OPINION OF  
PROBABLE COST  
AND  
FUNDING  
ANALYSIS**

**OPINION OF PROBABLE COST WITH 1800 FEET OF SHEET PILING**

**ST. MARTIN PARISH GOVERNMENT**

**STEPHENSVILLE DRAINAGE IMPROVEMENTS AND FLOOD CONTROL PROJECT**

July 9, 2013

ITEM NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL ESTIMATED PRICE	TOTA OF EACH SECECTION
1	Mobilization	L.S.	1	\$ 100,000.00	\$ 100,000.00	
2	Temporary Construction signs and barricade	L.S.	1	\$ 8,000.00	\$ 8,000.00	
3	Construction Layout	L.S.	1	\$ 10,000.00	\$ 10,000.00	
4	Clearing and Grubbing	L.S.	1	\$ 25,000.00	\$ 25,000.00	
	Mob and Demob					\$ 143,000.00
5	Install Flood Gate	L.S.	1	\$ 175,000.00	\$ 175,000.00	
6	Install Steel Sheet Piles with Corner liftings (80' Long x 75' wide)	S.F.	6000	\$ 55.00	\$ 330,000.00	
	Flood Gate and structure					\$ 505,000.00
7	Install MC Channel MC 18x45.8 (3-15')	L.F.	45	\$ 250.00	\$ 11,250.00	
8	Install WF12x53 Beam Supports for Pump and Engine	L.F.	90	\$ 250.00	\$ 22,500.00	
9	Install 3"x3"x1/4" angle Iron Grid for Grating	L.F.	120	\$ 30.00	\$ 3,600.00	
10	Install 1.5" Steel Grating (15' x 30')	S.F.	450	\$ 50.00	\$ 22,500.00	
11	Install 4" Square Steel Roof Column (6 ea at 10')	L.F.	120	\$ 50.00	\$ 6,000.00	
12	Install 30'x15' wide manufacturing Steel Roof with Girders, Edging and with 3' drop sides	S.F.	450	\$ 115.00	\$ 51,750.00	
13	9-50' Long Class "B" Pilings Treated	L.F.	450	\$ 20.00	\$ 9,000.00	
14	4- 20'x3"x8" Timber Cross Bracing Supporting Discharge pipes	L.F.	80	\$ 48.00	\$ 3,840.00	
15	24" Std. Steel Discharge Pipe Coated	L.F.	80	\$ 400.00	\$ 32,000.00	
16	Timber Piles with 12"x12" Timber Pipe bents for Fuel Tank Support	EA	6	\$ 2,200.00	\$ 13,200.00	
17	Rip Rap	Tons	75	\$ 65.00	\$ 4,875.00	
18	Excavation and Fill	C.Y.	355	\$ 26.00	\$ 9,230.00	
19	Fencing	L.F.	90	\$ 45.00	\$ 4,050.00	
20	Drainage Pumps, Engines, Motors, Gear Boxes	Each	2	\$ 150,000.00	\$ 300,000.00	
21	1000 Gallon Fuel Tank	L.S.	1	\$ 15,000.00	\$ 15,000.00	
22	Diesel Fuel Line	L.F.	100	\$ 20.00	\$ 2,000.00	
23	Overhead Lighting and electrical	L.S.	1	\$ 10,000.00	\$ 10,000.00	
24	Handrail	L.S.	1	\$ 4,500.00	\$ 4,500.00	
25	Walkway	L.S.	1	\$ 4,500.00	\$ 4,500.00	
26	Trash Screen system	EA	1	\$ 35,000.00	\$ 35,000.00	
27	PZ-27 Sheet Pile (65 ft long)	SF	1625	\$ 45.00	\$ 73,125.00	
	New Drainage Pump Station					\$ 564,795.00
28	48" HDPE discharge pipe	L.F.	1175	\$ 450.00	\$ 528,750.00	
	Discharge Pipe of Pump Station					\$ 528,750.00
29	PZ-22 Steel Sheet Pile Wall with cap 50 feet long	L.F.	1800	\$ 600.00	\$ 1,080,000.00	
	Sheet Pile wall					\$ 1,080,000.00
30	Remove Existing Concrete Street and Curbs	SY	50	\$ 20.00	\$ 1,000.00	
31	Remove base and Subbase	CY	40	\$ 3.00	\$ 120.00	
32	Install 15" Culverts	LF	120	\$ 100.00	\$ 12,000.00	
33	Junction Box with Curb Inlet	EA	1	\$ 3,000.00	\$ 3,000.00	
34	Sloping and grading	LS	1	\$ 6,000.00	\$ 6,000.00	
	Install Cross Over culverts on Dawn Drive					\$ 22,120.00 St.Martin Parish
35	Excavate Existing Ditch	CY	500	\$ 5.00	\$ 2,500.00	
36	Construct Earthen Berm between Easy Canal and Stephenville Road at Old Church	CY	1100	\$ 25.00	\$ 27,500.00	
37	Remove existing concrete sacks and earthen dike	LS	1	\$ 2,500.00	\$ 2,500.00	
38	Sodding	SY	1450	\$ 3.50	\$ 5,075.00	
	Construct Earthen Berm between Easy Canal and Stephenville Road at Old Church					\$ 37,575.00 St.Martin Parish
39	Remove Grass and top soil	SY	3350	\$ 2.00	\$ 6,700.00	
40	Compacted Earthen Berm	CY	3750	\$ 25.00	\$ 93,750.00	
41	Sodding	SY	4500	\$ 3.50	\$ 15,750.00	
42	Sloping and Grading	LS	1	\$ 6,500.00	\$ 6,500.00	
	Construct Berms at several Locations					\$ 122,700.00 St.Martin Parish
43	Upgraded the existing drainage pump	LS	1	\$ 50,000.00	\$ 50,000.00	
	Retrofitting Existing Pump Station at Stephenville Road					\$ 50,000.00 St.Martin Parish
44	Sewer Manholea seal cover	EA	87	\$ 2,250.00	\$ 195,750.00	
45	Other Incidental work not included above	L.S.	1	\$ 50,000.00	\$ 50,000.00	
	Sewer Manhole Sealing					\$ 245,750.00 St.Martin Parish

**Opinion of Probable cost \$ 3,372,815.00**

<b>CDBG</b>	<b>\$ 1,999,000.00</b>
<b>FEMA</b>	<b>\$ 895,732.00</b>
<b>St. Martin Parish</b>	<b>\$ 478,145.00</b>

**Total Funds Available \$ 3,372,877.00**

# **H&H STUDY**

**Table 1. Bayou State Subdivision Drainage Area  
Sub-drainage: A, B & Outfall Canals**

SUBBASIN						
Name	Total Drainage Surface Area			CN	Number of House	Road Surface Area
	(sf)	(acre)	(mi2)			
					#	sf
<b>A1 &gt;&gt;</b>	<b>1,610,640.0</b>	36.98	0.058		<b>83.5</b>	<b>156,535.0</b>
<b>A2 &gt;&gt;</b>	<b>476,400.0</b>	10.94	0.017		<b>39.0</b>	<b>31,040.0</b>
<b>Total A1+A2 to Canal PS &gt;&gt;</b>	<b>2,087,040.0</b>	<b>47.91</b>	<b>0.075</b>		<b>122.5</b>	<b>187,575.0</b>
Lot&Backyard	1,548,272.0	35.54	0.056	87.00		
Road Surface	187,575.0	4.31	0.007	98.00		
Openwater Canal	351,193.0	8.06	0.013	100.00		
	<b>2,087,040.0</b>	<b>47.91</b>	<b>0.075</b>	<b>90.18</b>		
<b>Canal to PS &gt;&gt;</b>	<b>119,375.0</b>	<b>2.74</b>	<b>0.004</b>		<b>0.0</b>	<b>0.0</b>
Lot&Backyard	0.0	0.00	0.000	87.00		
Road Surface	0.0	0.00	0.000	98.00		
Openwater Canal	119,375.0	2.74	0.004	100.00		
	<b>119,375.0</b>	<b>2.74</b>	<b>0.004</b>	<b>100.00</b>		
<b>B1 &gt;&gt;</b>	<b>512,320.0</b>	<b>11.76</b>	<b>0.018</b>		<b>23.5</b>	<b>48,495.0</b>
<b>B2 &gt;&gt;</b>	<b>1,040,852.0</b>	<b>23.89</b>	<b>0.037</b>		<b>63.0</b>	<b>50,234.0</b>
<b>Total B1+B2 to PS &gt;&gt;</b>	<b>1,553,172.0</b>	<b>35.66</b>	<b>0.056</b>		<b>86.5</b>	<b>98,729.0</b>
Lot&Backyard	1,218,052.0	27.96	0.044	87.00		
Road Surface	98,729.0	2.27	0.004	98.00		
Openwater Canal	236,391.0	5.43	0.008	100.00		
	<b>1,553,172.0</b>	<b>35.66</b>	<b>0.056</b>	<b>89.68</b>		
<b>Total Drainage to PS &gt;&gt;</b>	<b>3,759,587.0</b>	<b>86.31</b>	<b>0.135</b>			
Lot&Backyard	2,766,324.0	63.51	0.099	87.00		
Road Surface	286,304.0	6.57	0.010	98.00		
Openwater Canal	706,959.0	16.23	0.025	100.00		
	<b>3,759,587.0</b>	<b>86.31</b>	<b>0.135</b>	<b>90.28</b>	<b>209.0</b>	<b>286,304.0</b>



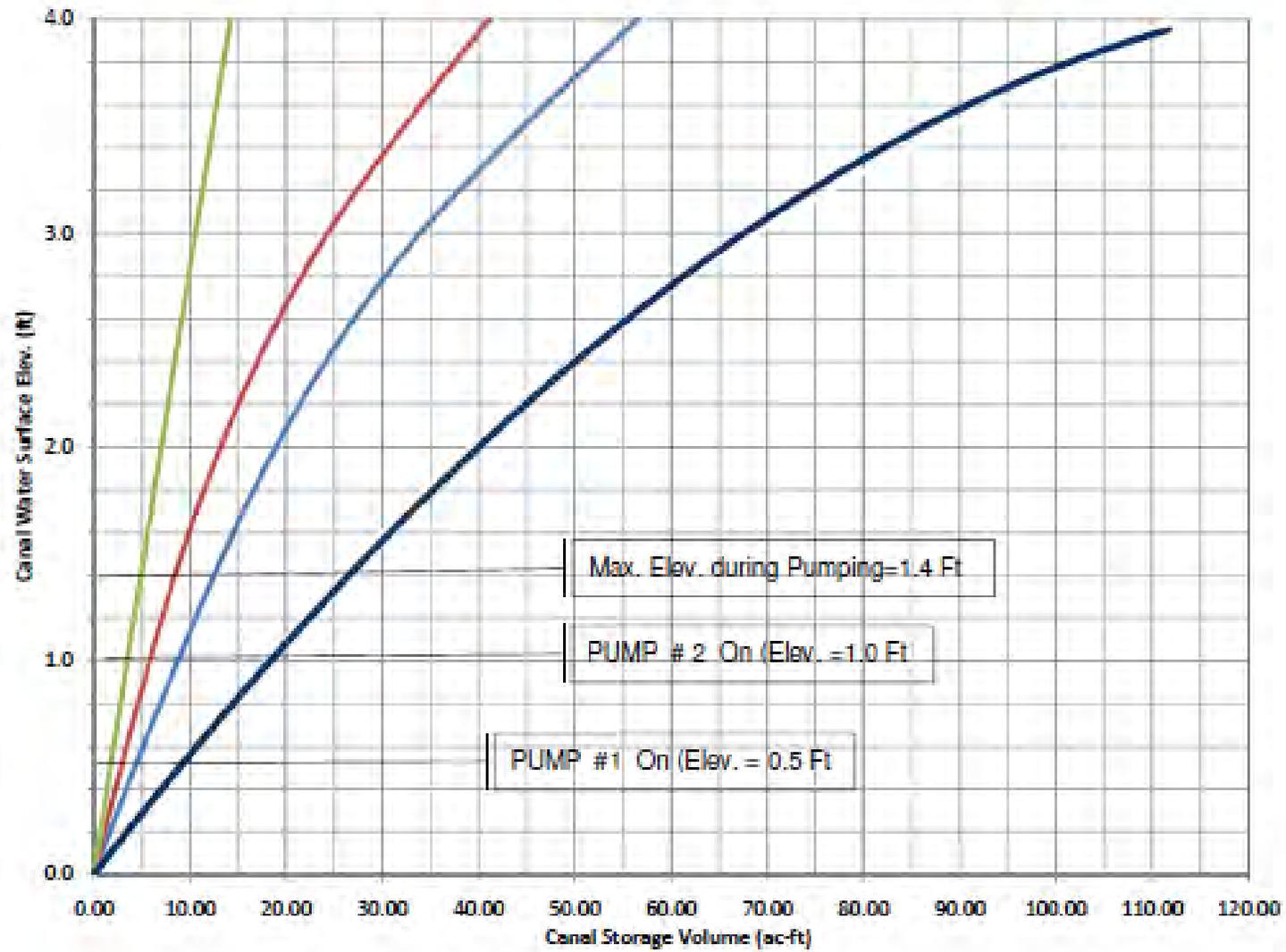
	Canal Cross Section Elevation
	Canal Low Point Elevation

**Table 2.**

**24 hours Rainfall –Runoff Frequency Depth (in), Volume (ac-ft) over Bayou State Subdivision Drainage Area  
and Corresponding Storage Elevation (ft) in adjacent Canals**

Rainfall Frequency	Rainfall (in)	24-hr Maximum Runoff Depth (in) Over Drainage Area								Total Canals Runoff Volume (ac-ft)	Total Canals Runoff Elevation (ft) AFTER MITIGATION	Total Canals Runoff Elevation (in NAVD) BEFORE MITIGATION
		A1 (in)	A2 (in)	A1+A2 (in)	Outflow (in)	B1 (in)	B2 (in)	B1+B2 (in)	Total (in)			
<b>2-YR</b>	<b>5.87</b>	4.718	4.808	4.739	5.870	4.682	4.735	4.712	4.750	34.17	<b>1.76</b>	<b>3.26</b>
<b>5-YR</b>	<b>7.43</b>	6.244	6.339	6.266	7.430	6.205	6.261	6.237	6.278	45.16	<b>2.22</b>	<b>3.72</b>
<b>10-YR</b>	<b>8.49</b>	7.287	7.385	7.310	8.490	7.247	7.305	7.280	7.322	52.67	<b>2.51</b>	<b>4.01</b>
<b>25-YR</b>	<b>10.12</b>	8.898	8.998	8.921	10.120	8.857	8.916	8.890	8.934	64.26	<b>2.91</b>	<b>4.41</b>
<b>50-YR</b>	<b>11.42</b>	10.186	10.288	10.210	11.420	10.144	10.205	10.178	10.223	73.53	<b>3.20</b>	<b>4.7</b>
<b>100-YR</b>	<b>13.23</b>	11.983	12.087	12.007	13.230	11.940	12.002	11.975	12.021	86.46	<b>3.54</b>	<b>5.04</b>

Available Canal Storage Volume above Elevation 0.00 (ac-ft)



**Appendix –B.** Characterization of Significant Design Storm for St. Martin Parish (South)

Table B.1. IDF Computation Coefficient of a, b and c for Martin Parish

Table B.2. Rainfall Intensity-Duration-Frequency (IDF) for Martin Parish

Table B.3 Rainfall Intensity Depth (inches), and Duration Frequency

Figure B.1 Rainfall Intensity Duration Frequency Curves for Martin Parish

Figure B.2 Rainfall Intensity Duration Frequency Curves for Martin Parish

Figure B.3 Rainfall Frequency Duration Curves for Martin Parish

Figure B.4 Rainfall Frequency Duration Curves for Martin Parish

## Appendix B

### Characterization of Significant Design Storm for **St. Martin Parish**

The design storm Intensity-Duration Frequency (IDF) curve was developed for St. Martin Parish based on procedure and data published by the “Hydrologic Study of Louisiana Flat Terrain for Transportation Facility <sup>(1)</sup>.” The IDF parametric relation is expressed in terms of storm duration, intensity, and frequency of the occurrence as follow:

$$I = a(D + b)^c$$

Where: I is rainfall intensity in in/hr, D is duration of rainfall, and a, b and c are the site specific parameters. The a, b and c factors for St. Martin Parish at South were determined using data from southeastern parishes (Table B.1)

Table B.1. IDF Computation Coefficient of a, b and c  
for St. Martin Parish (South)

<b>Year</b>	<b>a</b>	<b>b</b>	<b>c</b>
<b>2</b>	2.692	0.493	-0.750
<b>5</b>	3.412	0.503	-0.750
<b>10</b>	4.028	0.557	-0.760
<b>25</b>	5.143	0.694	-0.780
<b>50</b>	6.425	0.851	-0.810
<b>100</b>	8.523	1.066	-0.850

The IDF study includes 2, 5, 10, 25, 50 and 100-year frequency storms for duration of 5-min., 15-min., 25-min., 1-hr, 2-hr, 3-hr, 6-hr, 12-hr, and 24-hr. A summary of Rainfall Intensity-Duration Frequency (IDF) is for St. Martin Parish at South presented in Tables B.2 and B.3 and Figures B.1, B.2, B.3, B.4 and B.5.

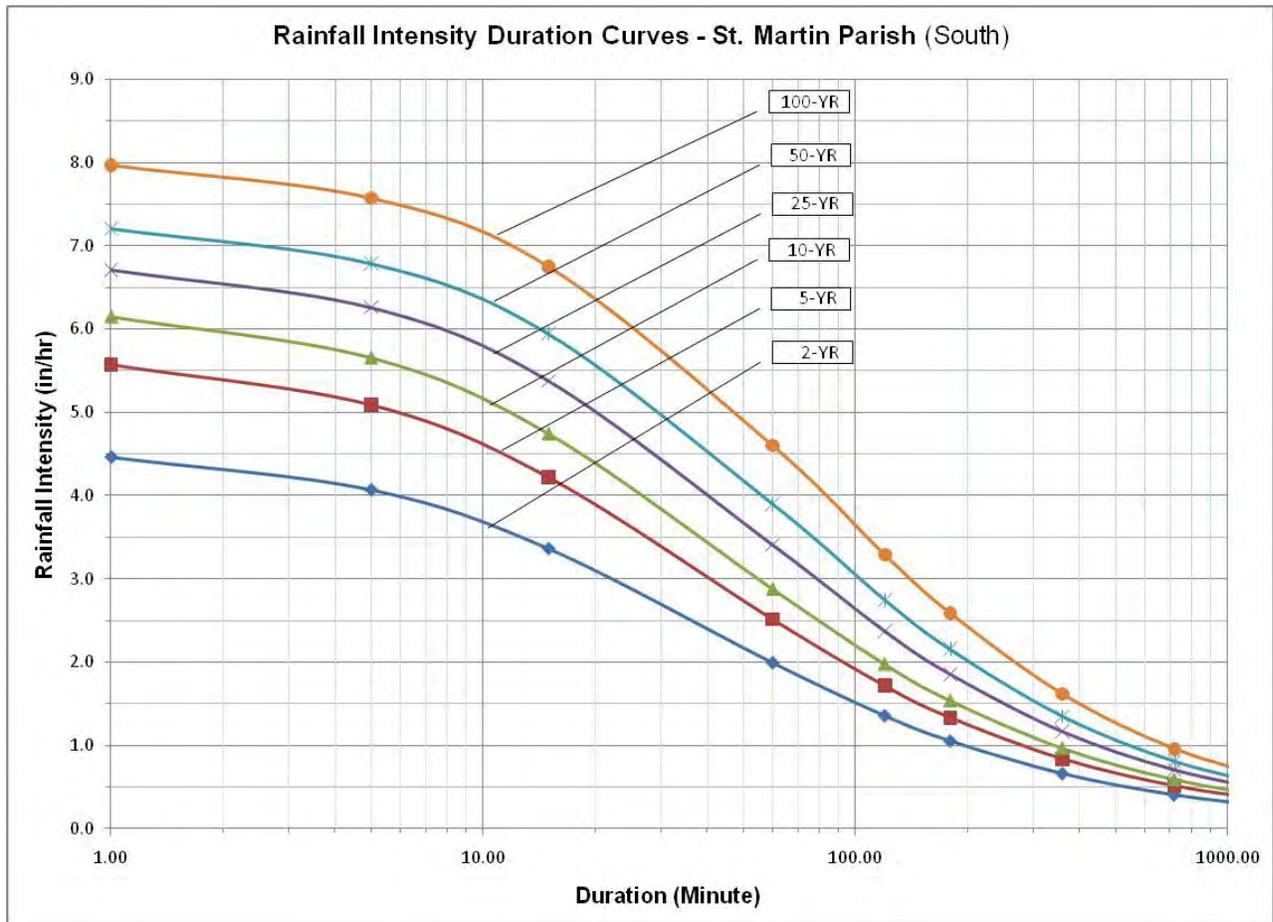
Table B.2. Rainfall Intensity-Duration-Frequency (IDF) for St. Martin Parish  
Using  $I = a(D+b)^c$  I (in/hr), D (hr)

<b>Year</b>	<b>5-Min</b>	<b>15-Min</b>	<b>1-hr</b>	<b>2-hr</b>	<b>3-hr</b>	<b>6-hr</b>	<b>12-hr</b>	<b>24-hr</b>
<b>2</b>	4.072	3.366	1.994	1.357	1.054	0.662	0.405	0.245
<b>5</b>	5.091	4.220	2.513	1.714	1.332	0.838	0.513	0.310
<b>10</b>	5.652	4.741	2.877	1.973	1.536	0.965	0.589	0.354
<b>25</b>	6.260	5.379	3.409	2.374	1.856	1.167	0.709	0.422
<b>50</b>	6.788	5.943	3.902	2.750	2.156	1.352	0.812	0.476
<b>100</b>	7.572	6.749	4.600	3.289	2.587	1.617	0.959	0.551

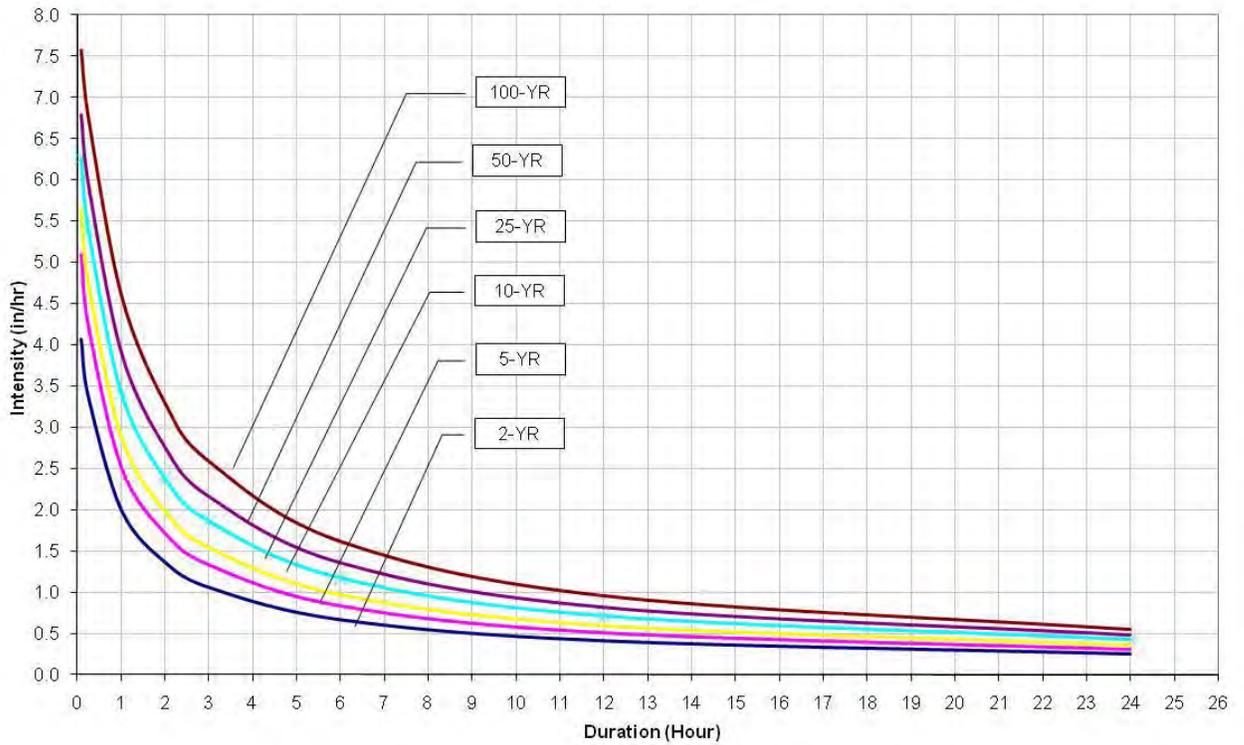
**Table B.3. Rainfall Intensity Depth (inches), and Duration Frequency**

Year	5-Min	15-Min	1-hr	2-hr	3-hr	6-hr	12-hr	24-hr
2	0.34	0.84	1.99	2.71	3.16	3.97	4.86	5.87
5	0.42	1.06	2.51	3.43	4.00	5.03	6.16	7.43
10	0.47	1.19	2.88	3.95	4.61	5.79	7.07	8.49
25	0.52	1.34	3.41	4.75	5.57	7.00	8.50	10.12
50	0.57	1.49	3.90	5.50	6.47	8.11	9.75	11.42
100	0.63	1.69	4.60	6.58	7.76	9.70	11.51	13.23

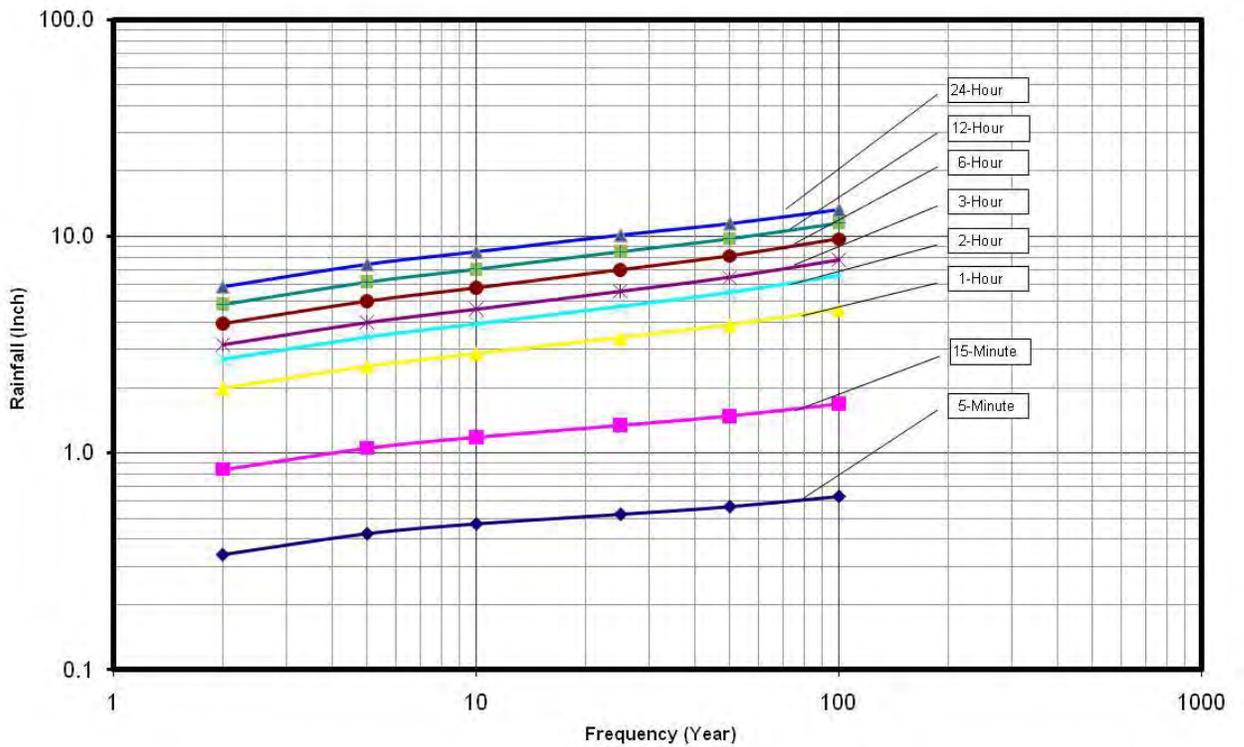
Figure B.1. Rainfall Intensity Duration Frequency Curves for St. Martin Parish



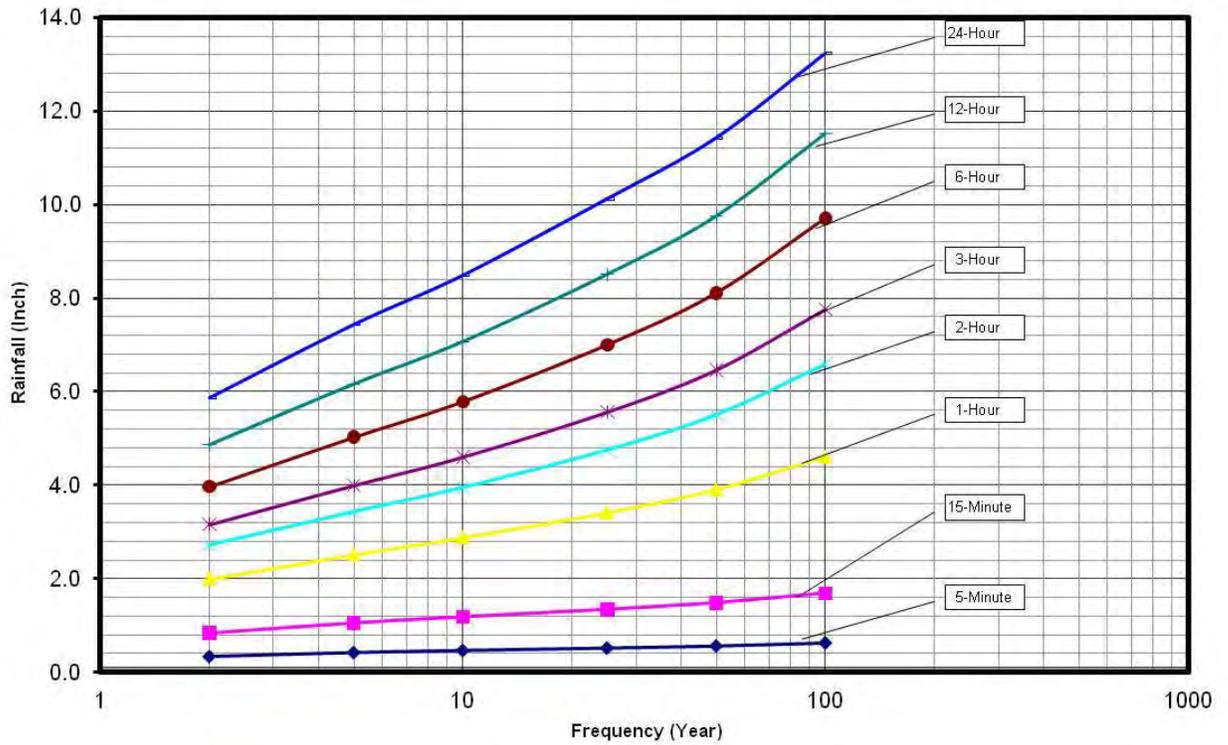
**Figure B.2. Rainfall Intensity Duration Curves - St. Martin Parish (South)**



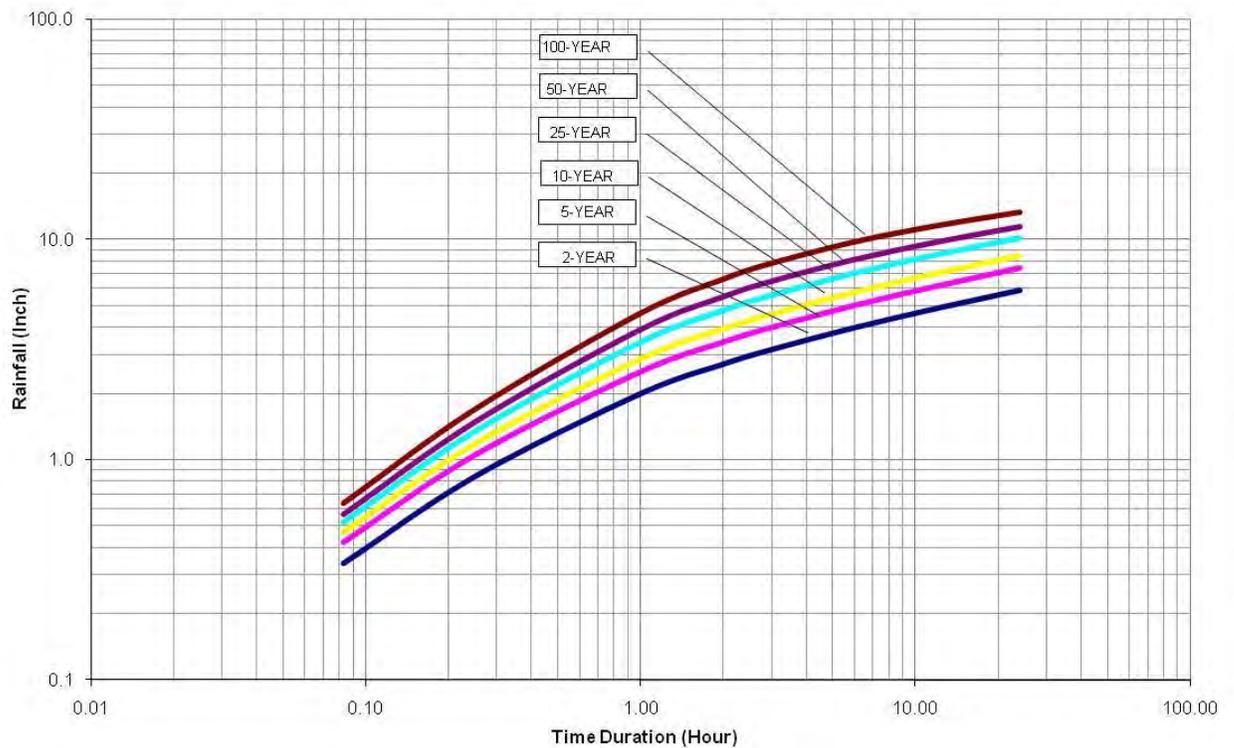
**Figure B.3. Rainfall Frequency Duration Curves - St. Martin Parish (South)**



**Figure B.4. Rainfall Frequency Duration Curves - St. Martin Parish (South)**



**Figure B.5. Rainfall Duration Frequency Curves -St. Martin Parish (South)**



**APPENDIX E**  
**OTHER INFORMATION**  
**(PUBLIC NOTICE, 8-STEP, FONSI ETC.)**

**PUBLIC NOTICE**  
**FEMA NOTICE OF AVAILABILITY**  
**DRAFT ENVIRONMENTAL ASSESSMENT**  
**DRAFT FINDING OF NO SIGNIFICANT IMPACT**  
**MITIGATION PROPOSAL FOR THE**  
**STEPHENSVILLE FLOOD PROTECTION AND RETROFIT,**  
**MORGAN CITY, ST. MARTIN PARISH, LOUISIANA**

Interested parties are hereby notified that the Federal Emergency Management Agency (FEMA) has prepared a draft Environmental Assessment (EA) and draft Finding of No Significant Impact (FONSI) in compliance with the National Environmental Policy Act (NEPA). The purpose of the EA is to assess the effects on the human and natural environment for the Stephenville Flood Protection and Retrofit Project, which proposes to implement a flood protection project and mitigation project to: 1) Prevent flooding of streets and residences from flowing inverse in existing catch basins and outfalls when waterways rise; 2) Inhibit intrusion of water in the wastewater treatment system for the community when waterways rise; and 3) Improve the performance and protect the existing pumping station located in the community by elevating and increasing pumping capacity.

Situated in the southern portion of St. Martin Parish, Stephenville, Louisiana incurs flooding frequently due to backwater flooding from the Atchafalaya River during heavy rain fall, coastal storm surge, tides, and sea level rise from the Gulf of Mexico, floodwaters quickly inundates the Bayou Estates Subdivision offering little capacity for proper drainage. To address these issues, the Applicant proposes to install flood control measures and upgrade the existing pumping system.

The purpose of the draft EA is to analyze the potential environmental impacts associated with the preferred action and alternatives. The draft EA evaluates a No Action Alternative; the Preferred Action Alternative, which would include installing sheet piles along drainage canal banks, a floodgate, a new drainage pump station with two (2) pumps and a generator, repairing existing infrastructure, and the construction of earthen berms to protect the western edge of the subdivision.

The draft FONSI is FEMA's finding that the preferred action will not have a significant effect on the human and natural environment.

The draft EA and draft FONSI are available for review at the following locations: Morgan City Public Library, at 220 Everett St. Morgan City, LA – Mondays through Fridays 8:30am to 5:30pm; closed Saturdays and Sundays. This public notice will run in the local newspaper, The Teche News, on Wednesday, June 10, and Wednesday June 17, 2015; and in The Times Picayune on Wednesday, June 10, 2015, Friday, June 12, 2015, and Sunday, June 14, 2015. The documents can also be downloaded from FEMA's website at <http://www.fema.gov/resource-document-library>. There will be a fifteen (15) day comment period, beginning on June 10, 2015 and concluding on June 25, 2015 at 4 p.m. Comments may be mailed to: DEPARTMENT OF HOMELAND SECURITY-FEMA EHP, 1500 MAIN STREET, BATON ROUGE, LOUISIANA 70802. Comments may be emailed to: [FEMA-NOMA@dhs.gov](mailto:FEMA-NOMA@dhs.gov) or faxed to 225-346-5848. Verbal comments will be accepted or recorded at 504-427-8000. If no substantive comments are received, the draft EA and associated FONSI will become final.

## 8-STEP PROCESS

### EO 11988-FLOODPLAIN MANAGEMENT EO 11990-WETLAND PROTECTION

**DATE: 05/31/2015**

**PREPARED BY: Jamie Schexnayder, CFM/Environmental Protection Specialist**

**PROJECT: Stephenville Flood Protection and Pumping Station Retrofit**

**Hazard Mitigation Grant Program Project No. 1603-0213, FEMA Disaster 1603-DR-LA**

**LOCATION: Bayou Estates Subdivision, Stephenville, St. Martin Parish, LA**

**LATITUDE: 29.7690 LONGITUDE: -91.1706**

**STEP 1 Determine whether the proposed action is located in a wetland and/or The 100-yr floodplain (500-year floodplain for critical actions [44 CFR 9.4]), or whether it has the potential to affect or be affected by a floodplain or a wetland (see 44 CFR 9.7).**

St. Martin Parish enrolled in the National Flood Insurance Program (NFIP) on 05/03/1982. Per Digital Flood Insurance Map (DFIRM) Panel 22099C0625D, dated 11/04/2010, the site is located within Flood Zone AE, a special flood hazard area (SFHA) subject to inundation by the 1% annual chance (100-year) flood event; Base Flood Elevation (BFE) 6 feet determined (North American Vertical Datum 88 (NAVD88)).

**STEP 2 Notify the public at the earliest possible time of the intent to carry out an action in a floodplain or wetland, and involve the affected and interested public in the decision making process (see 44 CFR 9.8).**

A cumulative public notice concerning the Hazard Mitigation Grant Program (HMGP) Assistance in floodplain and wetland areas will be or has been published in the New Orleans Times-Picayune, Baton Rouge Advocate, Lafayette Daily Advertiser, Lake Charles American Press, Hammond Star, Monroe News-Star, Shreveport Times, and the Alexandria Daily Town Talk.

**STEP 3 Identify and evaluate practicable alternatives to locating the proposed action in a floodplain or wetland (including alternative sites, actions and the "no action" option) [see 44 CFR 9.9]. If a practicable alternative exists outside the floodplain or wetland, FEMA must locate the action at the alternative site.**

**Combination of Basic Improvements and Protection up to Elevation of +4.0 MSL (Proposed Action)**

ALTERNATIVE ACTION 1: The preferred alternative is the Combination of Basic Improvements and Protection up to Elevation of +4.0 MSL. The applicant proposes: 1) Installing 1000 linear feet of PVC sheet piles with the highest elevation at +6.0 NAVD along the northern and eastern portion of the outer bank of the drainage canal; 2) Assembling one new roller and or, 30' foot hinged aluminum floodgate along the north bank of Bayou Estates Subdivision; 3) Installing one (1) new drainage pump station with two (2) -50 cubic feet per second (CFS) pumps and a generator to create a forced drainage area under storm events; 4) Rebuilding and elevating the existing drainage pump station at the entrance to the subdivision; 5) Repairing existing canal banks throughout the development; 6) Removing the existing drain pipes from the outer canals and installing new pipes to allow storm water to be directed towards the drainage pump stations; 7) Constructing a 250' foot earthen berm on the western edge of the subdivision and behind the homes with low ground elevation to prevent storm water from entering along the western boundary of the subdivision; 8) Installing six (6) short-run low earthen berms along portions of the subdivision adjacent to Dawn Drive and Stephenville Road; and execute minor upgrades and enlargements to several catch basins and culverts throughout the subdivision. According to the Hydrologic and Hydraulic Study, the proposed action would prevent the water from entering the sewer system and houses. The new drainage pump station would be designed to handle the 25-year rainfall intensity in the area when the proposed flood gate is closed.

Dismissed Alternatives:

NO ACTION: Implementation of the No Action Alternative would entail no hazard mitigation measures for the Bayou Estates Subdivision and the Stephenville area. Consequently, flooding would not be abated or improved. This alternative would also result in hazardous conditions for not only the residents of St. Martin Parish, but also businesses and emergency responders who utilize the roadways and live in this area. The No Action Alternative does not meet the purpose and need. This alternative would perpetuate the "damage-repair-damage" cycle thus requiring additional funding to be drawn from the National Flood Insurance Program as well as depleting local and National disaster funds.

STEP 4

**Identify the full range or potential direct or indirect impacts associated with, the occupancy or modification of floodplains and wetlands and the potential direct and indirect support of floodplain and wetland development that could result from the proposed action (see 44 CFR 9.10).**

Alternative Action 1: This alternative consists of the Combination of Basic Improvements and Protection up to Elevation of +4.0 MSL within the 100-year floodplain. Hydraulic calculations for this action are provided in Appendix D and preliminary plans for this action are provided in Appendix B. Per e-mail correspondence from Mohammad R. Saleh, P.E., of PEEC, dated March 11, 2015,

the placement of the sheet pile wall and the drainage pump station would not have any effect on the upstream or downstream areas (Appendix E). The proposed sheet pile wall is designed to an elevation of +6.0 NAVD 88 with the level of protection throughout the area being an elevation of +4.01 NAVD 88. In addition, the final elevation of the pump would be +6.0 NAVD 88, which is also the BFE. According to the H&H study, the proposed action would prevent the water from entering the sewer system and houses. The new drainage pump station would be designed to handle the 25-year rainfall intensity in the area when the proposed flood gate is closed. Incorporation of construction methods that meet the local floodplain ordinance will likely reduce risk and protect against future flood damage. E.O. 11988 conditions and construction BMPs for the new pump station must meet the local floodplain management standard within the community for which local ordinances were adopted through their participation in the NFIP.

**STEP 5      Minimize the potential adverse impacts and support to or within floodplains and wetlands to be identified under step # 4, restore and preserve the natural and beneficial values served by floodplains, and preserve and enhance the natural and beneficial values served by wetlands (see 44 CFR 9.11).**

ALTERNATIVE 1: Combination of Basic Improvements and Protection up to Elevation of +4.0 MSL shall be in accordance with local floodplain ordinances with applicable codes and standards applied to mitigate and minimize adverse effects (compliance with minimum National Flood Insurance Program standards and requirements). No significant direct impact would occur to floodplains under this alternative. However, indirect, short-term impacts to the surrounding area could occur during construction.

**STEP 6      Reevaluate the proposed action to determine first, if it is still practicable in light of its exposure to flood hazards, the extent to which it will aggravate the hazards to others. And it's potential to disrupt floodplain and wetland values and second, if alternatives preliminarily rejected at step # 3 are practicable in light of the information gained in steps # 4 and # 5. FEMA shall not act in a floodplain or wetland unless it is the only practicable location (see 44 CFR 9.9).**

The proposed action is the chosen practicable alternative based upon a review of possible adverse effects on the floodplain and community and socioeconomic expectations. The actions proposed are located in the only practicable location. There are no other practicable alternate locations outside the floodplain available.

**STEP 7      Prepare and provide the public with a finding and public explanation of any final decision that the floodplain or wetland is the only practicable alternative (see 44 CFR 9.12).**

The draft EA went out for public review in The Times-Picayune, on Wednesday, June 10, 2015; Friday, June 12, 2015; and Sunday, June 14, 2015 and in The Teche News on Wednesday, June 10, 2015 and Wednesday, June 17, 2015.

STEP 8

**Review the implementation and post-implementation phases of the proposed action to ensure that the requirements of the order are fully implemented. Oversight responsibility shall be integrated into existing processes.**

Project shall be reviewed by FEMA at grant closeout to ensure the project was completed in accordance with all relevant and applicable floodplain ordinances, codes and standards and that all project actions were undertaken in accordance with terms and conditions stipulated to mitigate and minimize adverse effects in or to the floodplain and wetlands. Approval conditioned on reviews of implementation and post implementation phases to ensure compliance with the order(s).

Project has been reviewed for compliance with 44 CFR Part 9.



**FEMA**

**U.S. Department of Homeland Security**  
Louisiana Recovery Office  
1500 Main Street  
Baton Rouge, LA 70802

**DRAFT FINDING OF NO SIGNIFICANT IMPACT**  
**for the**  
**STEPHENSVILLE FLOOD PROTECTION AND PUMPING STATION RETROFIT**  
**STEPHENSVILLE, ST. MARTIN PARISH, LOUISIANA**  
***PROJECT NUMBER 1603-0213***  
***FEMA-1603-DR-LA***

**BACKGROUND**

Hurricane Katrina, a Category 4 hurricane with a storm surge above normal high tide levels, moved across the Louisiana, Mississippi and Alabama Gulf Coasts on August 29, 2005. Extensive flooding damaged drainage capacity for neighborhoods, and improved drainage is needed in St. Martin Parish, with mostly low-lying wetlands and a gently sloping coastline within close proximity to the Gulf of Mexico, Stephenville, Louisiana incurs flooding frequently due to backwater flooding from the Atchafalaya River. The project area is situated in the southern portion of St. Martin Parish and includes the entire Stephenville/Bayou Estates Subdivision which consists of approximately 250 residences and encompasses almost 113 acres.

In accordance with 44 CFR Part 10, FEMA regulations to implement the National Environmental Policy Act (NEPA), an Environmental Assessment (EA) was prepared. The purpose of the EA was to analyze the potential environmental impacts associated with flood protection measures, the retrofit of a pumping station, and the installation of the new pump station and to determine whether to prepare an Environmental Impact Statement (EIS) or Finding of No Significant Impact (FONSI).

The need for the proposed action is to effectively prevent the intrusion of water, improve the drainage canal capacity, and eliminate recurrent prolonged flooding experienced in the Stephenville/Bayou Estates subdivision; thereby, protecting the health and well-being of the people of St. Martin Parish, protecting existing public and private infrastructure, and reducing the risk of future damage from flooding. If left unprotected, future storm events have the potential to repeatedly damage homes and property in this area. The alternatives considered include 1) No Action and 2) Combination of Basic Improvements and Protection up to Elevation of +4.0 MSL (Proposed Action).

The applicant proposes to implement a phased flood protection and retrofit project to: 1) Prevent flooding of streets and residences from water flowing inverse in existing catch basins and outfalls when waterways rise; 2) Inhibit intrusion of water into the wastewater treatment system for the community when waterways rise; and 3) Improve the performance and protect the existing pumping station located in the community by elevating and increasing pumping

capacity. The preferred alternative is to address rising water issues, and to protect the community of Stephenville, in particular Bayou Estates Subdivision from future flooding through the installation of flood control measures and upgrades to the existing pumping system. As such, the following project improvements to protect Bayou Estates Subdivision from flooding are proposed as part of this project which includes: 1) Installing 1000 linear feet of PVC sheet piles with the highest elevation at +6.0 NAVD along the northern and eastern portion of the outer bank of the drainage canal; 2) Assembling one new roller and or, 30' foot hinged aluminum floodgate along the north bank of Bayou Estates Subdivision; 3) Installing one (1) new drainage pump station with two (2) -50 cubic feet per second (CFS) pumps and a generator to create a forced drainage area under storm events; 4) Rebuilding and elevating the existing drainage pump station at the entrance to the subdivision; 5) Repairing existing canal banks throughout the development; 6) Removing the existing drain pipes from the outer canals and installing new pipes to allow storm water to be directed towards the drainage pump stations; 7) Constructing a 250' foot earthen berm on the western edge of the subdivision and behind the homes with low ground elevation to prevent storm water from entering along the western boundary of the subdivision; 8) Installing six (6) short-run low earthen berms along portions of the subdivision adjacent to Dawn Drive and Stephenville Road; and execute minor upgrades and enlargements to several catch basins and culverts throughout the subdivision. According to the Hydrologic and Hydraulic Study, the proposed action would prevent flooding in the streets and residences from water flowing inverse in existing catch basins and outfalls when waterways rise, inhibit intrusion of water in the wastewater treatment system for the community when waterways rise, and improve the performance and protect the existing pumping station located in the community by elevating and increasing pumping capacity.

## **FINDINGS**

FEMA has evaluated the proposed project for significant adverse impacts to geology, soils, water resources (surface water, groundwater, and wetlands), floodplains, coastal resources, air quality, biological resources (vegetation, fish and wildlife, Federally-listed threatened or endangered species and critical habitats), cultural resources, socioeconomics (including minority and low income populations), safety, noise, and hazardous materials. The results of these evaluations as well as consultations and input from other federal and state agencies are presented in the EA.

## **CONDITIONS**

The following conditions must be met as part of the implementation of the project. Failure to comply with these conditions may jeopardize federal funds:

- Implement construction Best Management Practices (BMPs); install silt fences/straw bales to reduce downslope sedimentation. Area soils must be covered and/or wetted during construction.
- If fill is stored on site as part of unit installation or removal, the contractor is required to appropriately cover it.

- Construction contractor is required to obtain applicable Louisiana Pollutant Discharge Elimination System (LPDES) permit, and implement stormwater pollution prevention plan.
- The applicant is required to coordinate with the local floodplain administrator regarding floodplain permit(s) prior to the start of any activities.
- New construction must be compliant with current codes and standards.
- As per 44 CFR 9.11 (d) (9), mitigation or minimization standards must be applied, where possible. The replacement of building contents, materials and equipment should be, where possible, wet or dry-proofed, elevated, or relocated to or above the DFIRM BFE or local floodplain ordinances, whichever is more stringent.
- All coordination pertaining to these activities and applicant compliance with any conditions should be documented and copies forwarded to the state and FEMA for inclusion in the permanent project files.
- Any changes or modifications to the proposed project will require a revised determination. Off-site locations of activities such as borrow, disposals, haul- and detour roads, and work mobilization site developments may be subject to USACE regulatory requirements.
- Applicant must coordinate with USACE prior to the start of construction to acquire any necessary permits.
- Applicant must coordinate with USACE at the New Orleans District Office to verify if jurisdictional waters of the U.S. do occur on site and which permits, if any, are required.
- The project results in a discharge to waters of the State; submittal of a Louisiana Pollutant Discharge Elimination System LPDES application is necessary.
- All precautions must be observed to control nonpoint source pollution from construction activities. LDEQ has stormwater general permits for construction areas equal to or greater than one (1) acre. The applicant must contact the LDEQ Water Permits Division at (225) 219-9371 to determine if the proposed project requires a permit.
- Erosion Control Devices (ECD's) must be used and maintained extensively to prevent any potential direct or indirect adverse impacts to nearby wetland areas per the CWA and EO 11990. Any adverse impacts to adjacent wetlands resulting from the construction of this project will jeopardize receipt of federal funding.
- Any water system improvements should be coordinated through the LDEQ Water Permits to determine if special water quality-based limitations will be necessary.

- 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 must be taken to protect workers from these hazardous constituents.
- The contractor must observe all precautions to protect the groundwater of the region.
- All debris should be disposed of in an approved landfill.
- The applicant is responsible for coordinating with and obtaining any required permit(s) from the LDNR Coastal Management Division prior to initiating work. The applicant shall comply with all conditions of the required permit. All coordination pertaining to these activities and applicant compliance with any conditions should be documented and copies forwarded to the state and FEMA for inclusion in the permanent project files.
- Vehicle operation times would be kept to a minimum. Area soils must be covered and/or wetted during construction to minimize dust.
- Any changes to the scope or location of the proposed project or if the project has not been initiated one year from the date of the solicitation of views (May 29, 2016), the applicant is responsible for coordinating with United States Fish and Wildlife Service.
- If a bald eagle or its nest is spotted within 1,500 feet of the project site during the months of October through mid-May, the applicant must cease construction activities and contact LDWF and USFWS immediately. All correspondence must be documented and remain in the project permanent files.
- If during the course of work, archaeological artifacts (prehistoric or historic) are discovered, the applicant shall stop work in the vicinity of the discovery and take all reasonable measures to avoid or minimize harm to the finds. The applicant shall inform their Public Assistance (PA) contacts at FEMA, who will in turn contact FEMA Historic Preservation (HP) staff. The applicant will not proceed with work until FEMA HP completes consultation with the SHPO, and others as appropriate.
- If human bone or unmarked grave(s) are present within the project area, compliance with the Louisiana Unmarked Human Burial Sites Preservation Act (R.S. 8:671 et seq.) is required. The applicant shall notify the law enforcement agency of the jurisdiction where the remains are located within twenty-four hours of the discovery. The applicant shall also notify FEMA and the Louisiana Division of Archaeology at 225-342-8170 within seventy-two hours of the discovery. See also Section 6.0 Conditions and Mitigation Measures.

- Any fill or borrow material used must be sourced from areas that do not contain any buried cultural materials (e.g. brick foundations, prehistoric Indian artifacts, human burials, and the like).
- 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/or toxic waste in accordance to the requirements and to the satisfaction of the governing local, state and federal agencies. Applicant is responsible for acquiring LDEQ permits for the temporary debris staging and reduction sites (TDSRS) associated with this project prior to project closeout. Failure to provide FEMA with LDEQ approval may jeopardize project funding eligibility.
- St. Martin Parish limits noise levels by receiving land use in residential, public, commercial, and industrial areas to decibel levels of 60 during the “daytime” hours of 7 AM to 10 PM. Construction activities should be limited to this schedule on weekdays. Mitigation and abatement measures will be required to reduce the noise levels to a range that would be considered acceptable.
- The contractor must place fencing around the work area perimeters to protect nearby residents from vehicular traffic.
- To minimize worker and public health and safety risks from project construction and closure, all construction and closure work must be done using qualified personnel trained in the proper use of construction equipment, including all appropriate safety precautions. Additionally, all activities must be conducted in a safe manner in accordance with the standards specified in OSHA regulations and the USACE safety manual.
- The contractor must post appropriate signage and fencing to minimize potential adverse public safety concerns.
- Appropriate signage and barriers should be in place prior to construction activities in order to alert pedestrians and motorists of project activities and traffic pattern changes.
- The contractor should implement traffic control measures, as necessary.
- If hazardous materials are unexpectedly encountered in the project area during the proposed construction operations, appropriate measures for the proper assessment, remediation, management and disposal of the contamination would be initiated in accordance with applicable federal, state, and local regulations. The contractor would be required to take appropriate measures to prevent, minimize, and control the spill of hazardous materials in the construction area.

- The LDNR Office of Conservation should be contacted at (225) 342-5540 if any unregistered wells of any type are encountered during construction work.
- For pipelines and other underground hazards, Louisiana One Call should be contacted at 800-272-3020 prior to commencing operations.

## **CONCLUSIONS**

Based upon the incorporated EA, and in accordance with Presidential Executive Orders 12898 (Environmental Justice), 11988 (Floodplain Management), and 11990 (Wetland Protection), FEMA has determined that the proposed action implemented with the conditions and mitigation measures outlined above and in the EA will not have any significant adverse effects on the quality of the natural and human environment. As a result of this FONSI, an Environmental Impact Statement will not be prepared (44 CFR Part 10.8) and the proposed action alternative as described in the EA may proceed.

## **APPROVALS**

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Kevin Jaynes Regional Environmental Officer Region VI FEMA 1603-1607-DR-LA	Date
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Thomas "Mike" Womack Director of the Louisiana Recovery Office Region VI FEMA 1603-1607-DR-LA	Date
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