DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, NEW ORLEANS DISTRICT
7400 LEAKE AVE
NEW ORLEANS LA 70118-3651

February 4, 2019

Operations Division
Special Project and Policy Team
Project Manager: Brian W. Breaux
brian.w.breaux@usace.army.mil
(504) 862-1938

SUBJECT: MVN-2014-02764-1 MB

PUBLIC NOTICE

Public Notice Purpose: Pursuant to Section 10 of the Rivers and Harbors Act of March 3, 1899 (30 Stat. 1151; 33 USC 403) and Section 404 of the Clean Water Act (86 Stat. 816; 33 USC 1344), the U.S. Army Corps of Engineers, New Orleans District, Regulatory Branch is soliciting comments from all interested parties on the development, utilization and long-term management of a proposed mitigation bank. The purpose of this mitigation bank is to provide compensatory mitigation for unavoidable impacts to wetland resources, including other waters of the United States, that result from projects authorized through the Department of the Army permit program.

PROPOSED BELLE POINTE COASTAL MITIGATION EXPANSION IN ST. JOHN THE BAPTIST PARISH

NAME OF APPLICANT: Delta Land Services, LLC, 1090 Cinclare Drive, Port Allen, Louisiana 70767 ATTN: Daniel Bollich.

LOCATION OF WORK: The proposed project area is located in Sections 17, 76, 77, 78, 81, 82 & 100, Township 11 South, Range 7 East, westerly of LaPlace, in St. John the Baptist Parish, Louisiana. (Lat. 30.095371, Long. -90.53453) Hydrologic Unit Code 08070204

CHARACTER OF WORK: Expansion of the existing Belle Pointe Coastal Mitigation Bank totals 185.2 acres. The Sponsor proposes to enhance 17.0 acres of baldcypress/tupelo swamp via elimination of invasive species, supplemental plantings of appropriate species (baldcypress, water tupelo, swamp tupelo, and Drummond red maple), and improving surface hydrologic connectivity through construction of gaps in the spoil banks of a man-made drainage canal within the site, and preservation of 143.0 acres of existing swamp and 24.4 acres of existing bottomland hardwood forest. Remaining acreage consists of 0.3 acres of open water and 0.5 acres of existing drainage canal. The restoration activities would be used as compensation for unavoidable impacts to wetlands associated with Department of the Army (DA) permits authorized under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act.

The Corps of Engineers is soliciting written comments from the public; federal, state, and local agencies and officials; Indian Tribes; and other interested parties. The comment period will close **30 days** from the date of this public notice advertisement. Written comments, including suggestions for modifications or objections to the proposed work, stating reasons thereof, are being solicited from anyone having interest in this prospectus. Letters must reference the applicant's name and the subject number, be addressed and mailed to the above address,

ATTENTION: REGULATORY BRANCH.

You are requested to communicate the information contained in this notice to any other parties whom you deem likely to have interest in the matter.

Martin S. Mayer
Chief, Regulatory Branch

Enclosure

Prospectus for the Belle Pointe Coastal Mitigation Bank, Amendment One

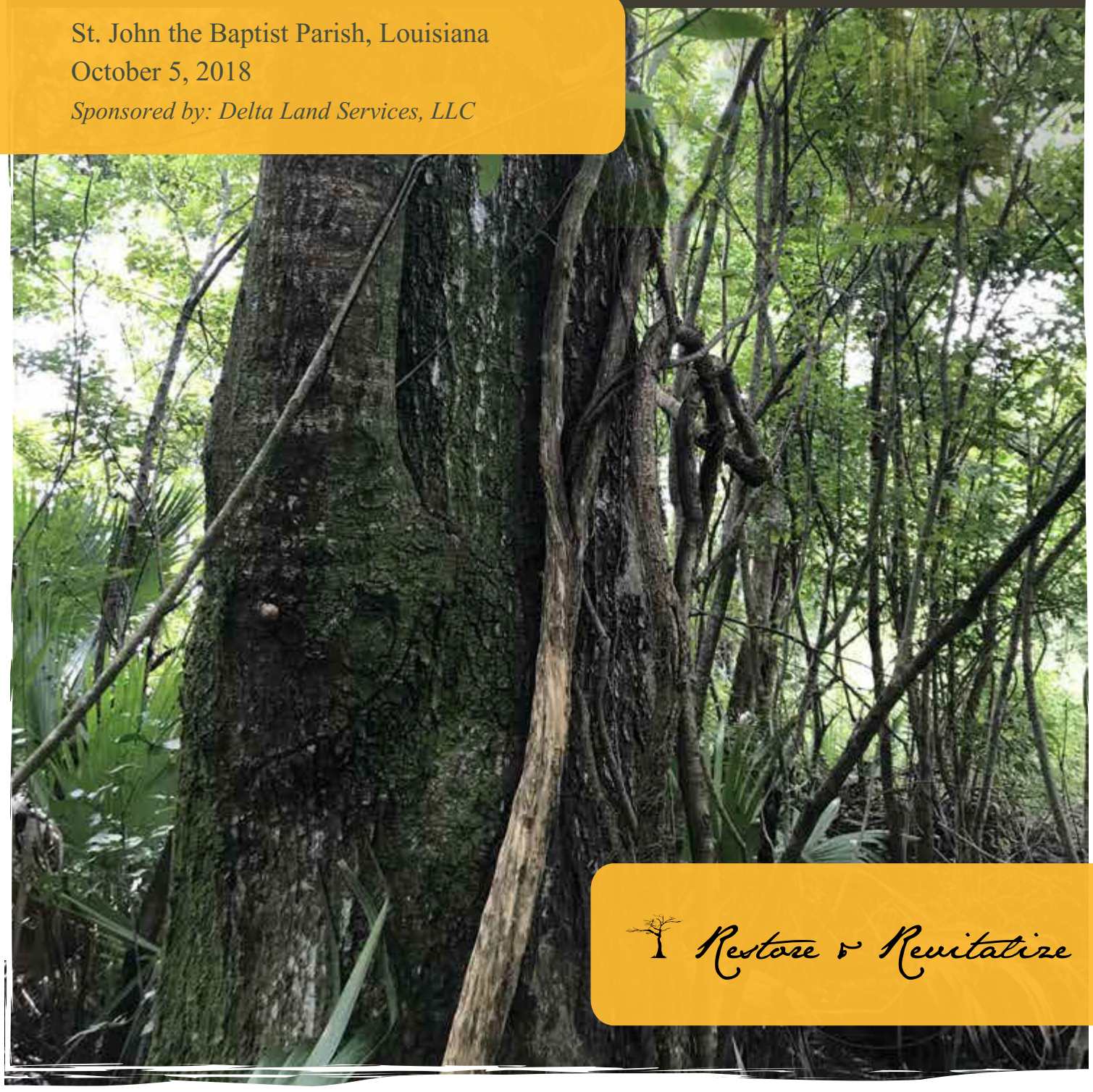
MVN-2014-02764

DELTA LAND SERVICES

St. John the Baptist Parish, Louisiana

October 5, 2018

Sponsored by: Delta Land Services, LLC



Restore & Revitalize

PROSPECTUS FOR THE PROPOSED

BELLE POINTE
COASTAL MITIGATION BANK
AMENDMENT ONE

ST. JOHN THE BAPTIST PARISH, LOUISIANA

MVN-2014-02764

October 5, 2018

PREPARED BY:

DELTA LAND SERVICES, LLC
1090 CINCLARE DRIVE
PORT ALLEN, LOUISIANA 70767

Attachment A: Map Figures

1. Introduction

Delta Land Services, LLC (DLS) has prepared this prospectus in accordance with 33 CFR § 332.8(d) (2)[1] to establish and operate the proposed Belle Pointe Coastal Mitigation Bank (BPCMB) – Amendment One (Bank). The Bank is a 185.2-acre proposed mitigation bank to provide compensatory mitigation for unavoidable impacts to "Waters of the United States[2]" if determined appropriate per 33 CFR § 332.3 (1)(a) and 33 CFR § 332.3 (1)(b)[3]. Additionally, the Bank may provide compensatory mitigation for unavoidable impacts to coastal wetland resources under the Louisiana Coastal Resources Program (LCRP)[4] per the provisions of LAC 43:724 and RS 49:214.22 (8)[5]. The Bank is approximately 1.5 miles west of Laplace, Louisiana (Attachment A: Figure 1) and is directly adjacent to the existing BPCMB. The Bank is located on the United States Geological Survey (USGS) 7.5-minute quadrangle "Reserve, LA" (Attachment A: Figure 2).

1.1 Site Location

The Bank is located within the approximate 713.2-square mile Lake Maurepas Subregion defined as the United States Geological Survey (USGS) Hydrologic Unit Code [HUC] 08070204. The nearest named water body is the Reserve Relief Canal which discharges into Lake Maurepas. The site is in the Mississippi Alluvial Plain (73) Level III Ecoregion and the Southern Holocene Meander Belts (73k) Level IV Ecoregion. The Bank is also within the Mississippi Delta Cotton and Feed Grains Land Resource Region (LRR O) and the Southern Mississippi River Alluvium Major Land Resource Area (MLRA 131A) (Natural

[1] 33 CFR § 332.8(d)(2) summarizes the information regarding a proposed mitigation bank at a sufficient level of detail to support informed public and IRT comment. Information included (but not limited too) in a prospectus are the objectives, establishment, operation, service area, general need, technical feasibility, ownership, long-term management, sponsor qualifications, ecological suitability, and water rights.

[2] 33 CFR § 328 defines waters of the United States as it applies to the jurisdictional limits of the authority of the Corps of Engineers under the Clean Water Act. Waters of the United States include those waters listed in 33 CFR § 328(a). The lateral limits of jurisdiction in those waters may be divided into three categories (i.e., territorial seas, tidal wasters, and non-tidal waters, which are further described in 33 CFR § 328.4 (a), (b), and (c).

[3] 33 CFR § 332.3 (1)(a) and 33 CFR § 332.3 (1)(b) described general compensatory mitigation requirements; resource types and location of compensatory mitigation; and watershed approach.

[4] The Office of Coastal Management (OCM) of the Louisiana Department of Natural Resources (LDNR) is the agency responsible for implementing the LCRP under the authority of the Louisiana State and Local Coastal Resources Management Act of 1978, as amended (Act 361, La. R.S. 49:214.21 et seq).

[5] RS 49:214.22 (8) was added by Act 548 of the 2006 Louisiana Legislative Session to "support sustainable development in the coastal zone that accounts for potential impacts from hurricanes and other natural disasters and avoids environmental degradation resulting from damage to infrastructure caused by natural disasters".

Resources Conservation Service [NRCS] 2006). The Bank is within the geographic limits of the Louisiana Coastal Zone Boundary (Attachment A: Figure 3).

The Bank is located in Sections 17, 76, 77, 78, 81, 82, and 100 of Township 11 South, Range 7 East in St. John the Baptist Parish, Louisiana. More specifically, the site is bordered on the south by the approved Belle Pointe Coastal Mitigation Bank and by existing forested swamp on the north, east and west near Reserve, LA (Attachment A: Figures 1 and 2). The approximate site center is located at Latitude 30.095371° North and Longitude 90.53452° West[6]. The site is generally flat with elevations trending lower from south to north.

2. Project Goals and Objectives

The goal of the Bank is the enhancement[7] of 17.0 acres of coastal southern baldcypress/tupelo swamp (Swamp) forested wetland ecosystems, the preservation[8] of 143.0 acres of forested Swamp, and the preservation of 24.4 acres of existing coastal bottomland hardwood (BLH) within the alluvial plain of the Mississippi River. For the Louisiana Department of Natural Resources (LDNR) Office of Coastal Management (OCM) permitting, the Bank will provide a total of 184.4 acres, which is comprised of 143.0 acres of coastal Swamp preservation, 17.0 acres of coastal Swamp enhancement and 24.4 acres of coastal BLH preservation (Attachment A: Figure 4; Attachment B: Table 1). The remaining acreage includes 0.3 acres of open water, and 0.5 acres of drainage canals to be plugged. The enhancement of coastal Swamp within the 185.2-acre Bank will provide additional existing wetland functions and values that are diminished under existing conditions and land use. The preservation of Swamp and BLH within the 185.2-acre Bank will provide long-term protection of the existing wetland functions and values that are currently functioning under existing conditions and land use.

Table 1 (Attachment B) summarizes the existing habitat and the proposed mitigation habitats and is depicted on Figures 5 and 4 (Attachment A), respectively. Specifically, the project objectives are to improve and protect the

[6] All spatial coordinates are based on the North American Datum of 1983 (NAD83).
[7] Enhancement is defined in 33 CFR § 332.2 as the manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s) but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.
[8] Preservation is defined in 33 CFR § 332.2 as the removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

physical, chemical and biological functions of a forested wetland system as follows:

- Enhancement of degraded wetland forest through hydrology restoration such as gapping existing spoil bank and supplemental planting with desirable native tree species;
- Protection of historic and self-sustaining surface hydrology within the 185.2-acre Bank through hydrology restoration activities such as placing gaps in existing spoil banks;
- Protection of existing land located next to larger, contiguous forested habitat which will benefit breeding birds in accordance with existing habitat management and bird conservation plans;
- Ensuring long-term viability and sustainability of the Bank through active and adaptive management including, but not limited to, invasive species control, appropriate monitoring, and long-term maintenance;
- Providing long-term protection utilizing a perpetual term conservation servitude on the 185.2-acre Bank and provide sufficient long-term funds to cover annual expenditures associated with maintenance and management of the Bank; and

3. Ecological Suitability of the Site/Baseline Conditions

This section describes the ecological suitability of the site to achieve the objectives of the proposed mitigation bank, including the physical, chemical, and biological characteristics of the bank site and how that site will support the planned types of aquatic resources and function, as stated in 33 CFR §332.8(d)(2)(vii)(B). This section provides the baseline/current site conditions on and adjacent to the proposed site.

3.1 Land Use

3.1.1 Historical Land Use

The historical land use of the project area was forested wetlands. The surrounding land use was a combination of agricultural land primarily used for livestock grazing and sugarcane production. According to a review of historical aerial photographs and map, the project area was forested wetlands from 1940 to current day. A portion of this area may have once been in agricultural production per the depiction on the 1892 15-minute quadrangle “Mount Airy, LA” (Attachment A: Figures 6 through12). As part of the conversion of the surrounding property to agricultural use, a perimeter berm and associated agricultural drains along the southern boundary of the proposed Bank are

present on the 1940 aerial. Also visible on the 1940 aerial are two drainage canals that bisect the property from north to south.

3.1.2 Existing/Current Land Use

The current land use of the project area is forested wetlands along with man-made drainage canals and associated spoil banks. The current land use of the surrounding property consists of emergent wetlands, forested wetlands and urban development (Attachment A: Figure 13).

3.2 Soils

The soils mapped within the project area are Shriever clay, 0-1 percent slopes, frequently flooded (Sm), with the rest mapped as Barbary soils, 0 to 1 percent slopes, frequently flooded (Ba), Gramercy silty clay, 0-1 percent slopes (GrA), and Schriever clay, 0 to 1 percent slopes (SkA) according to Soil Survey Geographic (SSURGO) database (NRCS 2018) (Attachment A: Figure 14). Shriever clay and Gramercy silty clay are both listed as predominately hydric soils by the NRCS (2017) with a 98 and 92 percent hydric component, respectively. Barbary is listed as predominately hydric soil with frequent ponding as it is a very poorly drained soil.

3.3 Hydrology

3.3.1 Contributing Watershed

The current contributing watershed includes portions of the surrounding forests subject to tidal flow (Attachment A: Figure 15).

3.3.2 Historical Hydrology and Drainage Patterns

The historical hydrology of the site was primarily from direct input from precipitation, runoff from the adjacent natural ridges of the Mississippi River, tidal flooding from the surrounding Lake Maurepas swamps, and high water tables.

3.3.3 Existing/Current Hydrology and Drainage Patterns

The current hydrology of the site is primarily from direct input from precipitation, runoff from the adjacent natural ridges of the Mississippi River and Belle Pointe Coastal Mitigation Bank, tidal flooding from the surrounding Lake Maurepas swamps, and high water tables (Attachment A: Figure 16). The proposed Bank receives direct runoff and tidal exchange with the original BPCMB due to levee removal performed during construction of the original BPCMB (Attachment A: Figure 17).

3.3.4 Jurisdictional Wetlands

On September 21, 2017, DLS submitted a request a Wetland Data Report for a Preliminary Jurisdictional Determination (PJD) for an approximate 187.59-acre tract that encompasses the entire Bank. The CEMVN issued a PJD on November 9, 2017 (MVN-2014-02764-1) (Attachment F). The results of the PJD shows approximately 186.34 acres of wetlands and 1.24 acres of other waters.

3.4 Vegetation

3.4.1 Historical Plant Community

The historical plant community was historically forested wetlands, consisting of a bottomland hardwood ridges and baldcypress- tupelo swamps. A portion of this area may have once been in agricultural production per the depiction on the 1892 15-minute quadrangle “Mount Airy, LA”.

3.4.2 Existing Plant Community

The existing plant community is comprised of three separate habitats. The bottomland hardwood ridge is dominated by sugarberry (*Celtis laevigata*), Drummond red maple (*Acer rubrum* var. *drummondii*), American elm (*Ulmus americana*), laurel oak (*Quercus laurifolia*), live oak (*Quercus virginiana*), sweetgum (*Liquidambar styraciflua*) black willow (*Salix nigra*), box elder (*Acer negundo*) and Chinese tallowtree (*Triadica sebifera*) in the tree and scrub/shrub stratum. The herbaceous stratum is comprised of dwarf palmetto (*Sabal minor*) and sawtooth blackberry (*Rubus argutus*). The baldcypress-tupelo swamp is dominated by southern baldcypress (*Taxodium distichum*), swamp tupelo (Nyssa aquatica) and Drummond red maple in the tree stratum. The herbaceous layer is dominated by savannah-panicgrass (*Phanopyrum gymnocarpon*), dotted smartweed (*Polygonum punctatum*), Lizards’ tail (*Saururus cernuus*) and pickerelweed (*Pontederia cordata*). The scrub-shrub swamp consists of black willow, Drummond red maple, eastern swampprivet (*Forestiera acuminata*), and planer tree (*Planera aquatica*)[9].

There are several large-diameter trees on the bottomland hardwood ridge with diameters at breast height (dbh) of 16 to 30 inches or more. These include sugarberry, live oak, laurel oak, American elm and sweetgum. The scrub-shrub swamp area contains several declining or dead species of hardwoods. The Chinese tallowtree occurs in groupings of 80-90 stems per acre of 2 to 6-inch dbh trees as well as in transitional areas between the bottomland hardwood ridge and the scrub-shrub swamp areas.

[9] All botanical scientific nomenclature is from https://plants.sc.egov.usda.gov accessed October 2, 2018.

3.5 General Need for the Project in this Area

The purpose of the Bank is to provide compensation for unavoidable impacts to wetlands within the Pontchartrain Basin as described in Section 5. The area of the basin within Louisiana is approximately 8,000 square miles in size of which the majority is comprised of open water (39%), wooded wetlands (15%) and emergent wetlands (10%) (USGS 2011 [2014]) (Attachment A: Figure 18). The population of the 14 parishes comprising the basin in Louisiana is over 2 million and has exhibited and 8.6% growth from 2000 to 2010 (USCB 2011). Some of Louisiana's most densely populated areas are contained within the Lake Pontchartrain River Basin. These include the metro areas of Baton Rouge and New Orleans. Cities and towns within this service area include Amite, Gonzales, Clinton, Covington, Denham Springs, Hammond, Kentwood, and Mandeville. These communities and their surrounding municipalities provide a high likelihood for residential and commercial expansion. Major industrial areas exist along the Mississippi River from Baton Rouge to New Orleans and large transportation corridors such as U.S. Highway 190, Interstate Highway 10, Interstate Highway 12, and Interstate Highway 55 traverse this basin.

Given the large amount of wetland acreage, population and industrial presence in this basin, unavoidable impacts are anticipated from commercial and residential development; linear projects such as transportation, utilities and pipelines. The presence of a high population and critical infrastructure in this flood-prone basin require flood control projects, man of which have been federally authorized and are anticipated to have large, wetland impacts. Enhancement and protection of wetland sites such as the Bank in this area will provide an important resource with regard to storm water retention and flood storage. According to the Louisiana Natural Heritage Program, baldcypress-tupelo swamps have been shown to be important nutrient and sediment sinks, improving the quality of water that flows through them. In addition to this function of nutrient assimilation, the swamps serve as nursery area for many estuarine dependent species and are also important in flood regulation (LNHP 2009). The protection of the Bank supports the recommendation of the Coastal Wetland Forest Science Working Group (CWFSWG) 2005 as follows:

- Place priority on conserving, restoring and managing coastal wetland forests to ensure their functions and ecosystem services will be available to citizens;
- Enhance wetland forest ecosystem functions and values as part of hydrologic management decisions;
- Establish and maintaining long-term monitoring of coastal wetland forest conditions which supplement other monitoring programs such as the CRMS and the Forest Inventory Analysis (FIA); and
- Insure mitigation of impacts on coastal wetland forests are of similar resource type and occur within a proper watershed approach.

The hydrology enhancement of the site is consistent with the Coastal Protection and Restoration Authority of Louisiana (CPRA) Louisiana's Comprehensive Master Plan for a Sustainable Coast (Master Plan) in that the project will restore natural hydrologic patterns by conveying freshwater, tidal flow into areas that have been cut off by anthropogenic features.

Forested wetlands, particularly freshwater swamp, can potentially reduce the effects of tropical storm surges and wind speed through attenuation and abatement thereby protecting the local community and valuable agricultural lands. The project would provide ecosystem services in the form of nutrient uptake and provide increased habitat for alligators (*Alligator mississippiensis*) (CPRA 2017). Protection of this coastal forested site with a conservation servitude is consistent with the goals of the Coastal Forest Conservation Initiative (CFCI) administered by the CPRA (Louisiana Department of Natural Resources [LDNR] Office of Coastal Management [OCM] 2010).

The long-term protection of the Bank would meet some of the goals and policy objectives identified in the Comprehensive Future Land Use Plan for St. John the Baptist Parish. Given much of the site is within a high-risk flood zone (AE), the implementation of the Bank would provide for a land use limited to passive recreational use thereby minimizing the potential for flood damage to any structural development which may otherwise occur on the property. This development and implementation of the Bank would meet the policy objective of maintaining the quality of life through protecting the natural environment and preserving the rural landscape. The protection of natural habitat wetlands would integrate conservation of natural habitats and natural aquatic systems which provide corridors for wildlife movement and protect the sustainability and resilience of parish's natural environment. The management of the Bank would meet the stated goal of utilizing native plants and controlling invasive species to insure and improve the health of the parish's plant community, resilience, and value for wildlife.[10]

The preservation will provide additional benefits to the existing BPCMB by providing a forested buffer to the restoration areas as well as maintaining the hydrological and biological connectivity from the original BPCMB and the adjacent, tidally-influenced forested wetlands. Additionally, preservation of tidally-influenced coastal swamps and bottomland hardwoods will provide cumulative benefits on a watershed scale within the Lake Pontchartrain Basin with emphasis on the Lake Pontchartrain Estuary (LPE) which is an approximately 1,400-square mile, tidally-influenced area within the Pontchartrain Basin described in Section 5 that resides in Ascension, Jefferson, Livingston, Orleans, St. Charles, St. James,

[10] The land use plan for St. John the Baptist Parish was obtained from the following URL accessed on December 11, 2014 (http://www.sjbparish.com/zoning_general.php?id=325).

St. John the Baptist, St. Tammany and Tangipahoa Parishes (TNC 2004)[11] (Attachment A: Figure 19). The amount of forested swamp habitat within the estuary experienced a serious decline from the late 19th century to mid-20th century, particularly in the area known as the Maurepas land bridge separating Lake Pontchartrain and Lake Maurepas.

Through much of the 19th century, the basin was disconnected from the freshwater input of the Mississippi River by the levee system. Nutria (*Myocastor coypus*) were introduced into the environment in the 1930s and the Mississippi River Gulf Outlet (MRGO) was constructed from 1958 to 1968[12]. The connection of MRGO to the Industrial Canal provided an open water connection from Chandeleur Sound to Lake Pontchartrain and allowed saline waters to flow from Breton Sound directly to Lake Borne and Lake Pontchartrain (LPBF 2006). The advent of mechanized, pullboat logging resulted in the harvesting of large areas of baldcypress swamp habitat from 1890 to 1938. As this activity ceased, the effect of the introduction of nutria, the increased salinity, a lack of freshwater input from the Mississippi River and an increase in the average flood duration of past 50 years has produced limited the natural regeneration of swamps. Additionally, severe drought conditions in the 1999 and 2000 resulted in significant salinity spikes which not only hampered natural regeneration but artificial regeneration efforts which had been conducted (Keddy et al. 2007).

The basin has exhibited recovery following the deauthorization of the MRGO on June 5, 2008 followed by the physical closure of the MRGO with rock dikes completed in July 2009 (USACE 2013). An analysis of Coastwide Reference and Monitoring System (CRMS) salinity data shows a decline of surface and soil salinity within the basin following the closure (Henkel et al 2007). Additionally, a coastwide nutria control program was implemented the Louisiana Department of Wildlife and Fisheries (LDWF) as part of the Coastal Wetland Protection, Planning, and Restoration Act (CWPPRA) project LA-03b. This program has resulted in the harvest of 5,117,786 nutria from 1999 through 2018 (Normand and Manuel 2018). Additionally, the Louisiana Coastal Master Plan identifies one hydrologic restoration project and three sediment diversion projects which would introduce freshwater and sediment into the wetlands surrounding Lake Maurepas and Lake Pontchartrain for targeted implementation in Years 1-10 (CPRA 2017)[13]. However, swamp habitat continues to be threatened by hydrologic issues such as impoundments which prevent the natural germination and

[11] Tidally influenced is identified as the area within the Louisiana Coastal Conservation Plan Boundary.
[12] Information obtained from the following URL http://nutria.com accessed on September 27, 2019 and http://www.mvn.usace.army.mil/Missions/Environmental/MRGO-Ecosystem-Restoration/History-of-MRGO/ accessed on September 27, 2018.
[13] These projects are the LaBranche Hydrologic Restoration (Project ID 001.HR.100), East Maurepas Diversion (Project ID 001.D1.21), Manchac Landbridge Diversion (Project ID 001.D1.100), and Union Freshwater Diversion (Project ID 001.D1.102).

recruitment of baldcypress and swamp tupelo species. These sites are identified as relic forests and include most of the extant tidally-influenced forested wetlands surrounding Lakes Pontchartrain and Maurepas (Henkle et al. 2007). The LASAF (2015) identify these types of baldcypress forests as RCC-2a and RCC3a which have conditions that are unfavorable for natural regeneration of swamp[14].

The protection of the existing bottomland hardwood area with mature, large trees is important as the presence of bottomland hardwood habitats are very minimal within the LPE. The Nature Conservancy (TNC 2004) has identified swamps, bottomland hardwoods and relict ridge woodlands within the LPE as targets for conservation acquisition or servitudes. Additionally, the control of tallow-tree is important in maintaining the integrity and future sustainability of this area.

The protection of bottomland hardwoods is vital for many species of wildlife of conservation concern and focus. The Mississippi Museum of Natural Science (MMNS 2005) purports that old-growth bottomland hardwood forests are critical habitat for 11 of the 18 species of bats known to the Southeast. Two of these species, the Southeastern myotis (*Myotis austroriparius*) and Rafinesque's big-eared bat (*Corynorhinus rafinesquii*) prefer large, hollow trees in mature bottomland hardwood and swamp habitats, respectively (LMRJV 2007; Taylor 2006). Bottomland hardwoods are vital for the management of Mallards (*Anas platyrhynchos*), wood ducks (*Aix sponsa*) and American woodcock (*Scolopax minor*) (North American Waterfowl Management Plan 2004, Kelly and Rau 2006). Swallow-tailed kites (*Elanoides forficatus*) are a species of concern which would benefit through the protection of wetland as these species requires vast amounts of bottomland hardwood and swamp forest (DeMay et al 2007).

The West Shore Lake Pontchartrain (WSLP) project, a federal hurricane and storm protection system was authorized in the Bipartisan Budget Act of 2018. This levee system will follow an existing pipeline transmission corridor which traverses the swamp about one mile north of the project site. This is described in the Final Integrated Feasibility Report and Environmental Impact Statement (EIS) for the WSLP Hurricane and Storm Damage Risk Reduction Study (HSDRSS) (USACE 2014). This proposed 18.27-mile alignment, identified as Alternative C in the EIS, includes approximately 300 linear feet of flood gates, 200 linear feet of drainage gates, and 2 pump systems. This alignment is proposed to enclose approximately 47 square miles which of which 15 square miles consists of wetlands. The Bank would be included in the enclosed area. The presence of wetlands on the protected side of the levee is described as beneficial as these areas have the potential to absorb flood waters from storm surges which may overtop the levee and thereby potentially minimizing the potential for such an

[14] RCC-2b are cypress forests which are sustainable by artificial regeneration only due to shallow prolonged flooding while RCC-3a are not sustainable due to deep prolonged flooding.

event to inundate developed areas[15]. This is consistent with the Multiple Lines of Defense Strategy (MLODS) and was a recommendation of the U.S. Fish and Wildlife Service (FWS) in a review of the Draft EIS[16].

4. Establishment of a Mitigation Bank

The Bank will be established per 33 CFR §332.8(d)(2) (ii) and is technically feasible per 33 CFR §332.8(d)(2) (iv). Sufficient water rights to support the long-term sustainability of the mitigation bank are insured per 33 CFR §332.8(d)(2)(vii)(A). Overall, the approximately 185.2-acre proposed Bank will be protected by a perpetual conservation servitude.

4.1 Site Restoration Plan

The proposed mitigation work plan involves the enhancement and preservation of existing forested wetlands, surface hydrology restoration, and the implementation of effective long-term management strategies. The proposed bank will conserve and protect a total of 185.2 acres, comprised of an existing BLH ridge and baldcypress-tupelo swamp wetlands. The implementation of the project also includes long-term management and invasive species control.

4.1.1 Soils/Hydrologic Work

The soil/hydrologic work includes constructing approximate 50-foot gaps every 250 feet within the spoil bank along a man-made drainage canal within the existing swamp to allow a more natural exchange of surface water with the surrounding tidal swamp. Hydrologic work performed as part of the Belle Pointe Coastal Mitigation Bank included degrading a perimeter agriculture levee that separated the restoration areas from the proposed preservation areas (Attachment A: Figure 20). The degradation of this perimeter agriculture levee allows tidal exchange between the original bank with the proposed preservation area. This tidal exchange will allow water to ingress and egress into the original Belle Pointe Coastal Mitigation Bank.

The proposed Preservation credit type is limited to 50% of the restored areas within the original BPCMB, and accounting for the previously authorized 13.4 acres of preservation credit.

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[15] The benefits of protection side wetlands are described in Section 3.7 of the WSLP HSDRRS Final EIS.

[16] The FWS recommended the use of non-development easements to protect and preserve wetlands within the protected side of the levee system to ensure their continued use as floodwater storage areas and to preclude any secondary development (Correspondence from Mr. James F. Boggs, Supervisor of the FWS Louisiana Field Office, to Colonel Alvin B. Lee, District Engineer of the CEMVN dated January 9, 2009 providing comments on the USACE Notice of Intent (NOI) to prepare the Draft EIS for the WSLP HSDRRS and included in Appendix A of the Final EIS (USACE 2014).

4.1.2 Vegetative Work

The proposed vegetative work includes supplemental planting of approximately 17.0 acres of degraded Swamp scrub-shrub and the removal of invasive species through herbicide treatments, mechanized clearing, cutting, shredding, or a combination thereof. Per Hilmann et. al. (2017), the supplemental plantings will consist of planting approximately 194 stems on 15-foot centers with a planting mix of 75% southern baldcypress with the remaining 25% a mix of water tupelo, Drummond red maple, and swamp tupelo (*Nyssa biflora*) (Attachment B: Table 2). All stems will have a minimum height of 3 feet and nutria protection tubes will be installed on each stem. The supplemental planting will occur in winter or early spring.

4.2 Technical Feasibility

The construction work required to complete the hydrology enhancement is routine in nature and feasible, consisting primarily of altering the improved drainage system to return the site to its previous hydrologic conditions to the extent practicable.

Regarding the Swamp enhancement site, this area would likely be classified as either a SWG Condition Class II (sites with potential for artificial regeneration) or Class I (sites with potential for natural regeneration). In 2015, the Louisiana Society of American Foresters (LASAF) expanded on the SWG's report. According the LASAF (2015), this site could be potentially classified as either a RCC-1 which is a site sustainable by natural regeneration but could be supplemented by artificial regeneration or a RCC-2a which is one that is sustainable only by artificial regeneration due to shallow prolonged flooding. The regeneration method described in Section 4.1.2 is in accordance with the site being a Class II or RCC-2a.

The mapped soil types are historically supportive of the native forested communities which are proposed for restoration. The soils are hydric indicating the site formed under hydric conditions and therefore historically supported wetlands. Therefore, this site can sustain itself as a forested wetland but may require artificial regeneration to establish itself. Hillmann et al (2017) suggested sites such as these may be regenerated to swamp forests and provided recommendations which will be incorporated into the planting per Section. 4.1.2.

4.3 Current Site Risks

Based upon title review and survey work conducted to date, no encumbrances have been identified within the Bank project boundary. A title opinion and survey plat will be provided with the anticipated Draft MBI submittal for this project. A review of the Louisiana Department of Natural Resources

(LDNR) Strategic Online Natural Resources Information System (SONRIS) revealed no current or previous oil and gas well locations on the Bank. The nearest well site was over one-half mile north of the Bank which was dry and subsequently plugged and abandoned in 1983[17].

4.4 Long-Term Sustainability of the Site

Long-term viability and sustainability of the Bank will be ensured through active and adaptive management including, but not limited to, invasive species control, appropriate monitoring and long-term maintenance. Regarding water rights, Article 490 of the Louisiana Civil Code treats water resources under the theory of absolute ownership and rule of capture provided that such capture does not result in harm to neighboring properties. The Bank will depend primarily on surface inundation from tidal exchange with the adjacent wetland forest and precipitation. As such, long-term hydrology maintenance will not depend on the utilization of water captured from irrigation wells; therefore, sufficient water rights are ensured for such purposes.

A concern expressed during the review process of the original bank was over the enclosure of these wetlands by the WLP levee and storm protection project described in Section 3.3 is the potential for a decrease or cessation in tidal exchange between the interior, or protected, side of the proposed levee and the unprotected side of the proposed levee. However, the operation plan per the EIS calls for the structures within the proposed levee to remain open to allow for existing gravity drainage which also allows for normal tidal exchange between the wetlands enclosed by the levee (protected side) and the surrounding tidal swamps on the unprotected side. It is anticipated that structures would close, and pumps operated for an average of 8.5 days per year[18]. Preliminary tidal hydrologic modeling suggests that daily water stages would be like present conditions with the exception of periods during storm events when structures would be closed and pumps operating. Given these projections and operation plan, it is not anticipated that the construction and operation of the levee and drainage system will negatively affect the hydrologic functioning of the Bank[19].

The CWFSWG (2005) indicates that chronic soil salinity levels of four parts per thousand (ppt) would have negative affect on baldcypress and two ppt would have a negative effect on water tupelo. Given the low salinity levels described in Section 3.2.3 (average 0.3 ppt with maximum of 1.1 ppt), the Sponsor does not anticipate any negative effects from saltwater intrusion in the foreseeable future. Henkel et al. 2007 noted a decreased salinity of this portion of the watershed following the closure of MRGO. With low salinity conditions, the site can support

[17] Well Serial Number 186550
[18] This is based on an estimated 1.7 storm events per year.
[19] The potential environmental consequences of the proposed project as it relates to the hydrologic conditions are described in Section 4.1.1 of the WSLP HSDRRS Final EIS.

a higher species richness than other habitats exposed to higher salinities (Shaffer et al. 2009).

5. Proposed Service Area

The Pontchartrain Basin will serve as the service area for the Bank (Attachment A: Figure 21). The use of credits outside of the defined service area will be handled on a case specific basis by the CEMVN and will be specified as such in the subsequent MBI.

This Basin is comprised of the Amite Subbasin (USGS Hydrologic Unit Code [HUC] 08070202), the Tickfaw Subbasin (USGS HUC 08070203), the Lake Maurepas Subbasin (USGS HUC 08070204), the Tangipahoa Subbasin (USGS HUC 08070205), the Liberty Bayou-Tchefuncta Subbasin (USGS HUC 08090201), the Lake Pontchartrain Subbasin (USGS HUC 08090202), and the Eastern Louisiana Coastal Subbasin (USGS HUC 08090203).

6. Operation of the Mitigation Bank

DLS will comply with all conditions of Sponsorship required by the CEMVN. The Bank will be established and operated through mitigation bank procedures outlined in 33 CFR § 332.8. This includes, but is not limited to, review process, modifications, permit coordination, project implementation, financial assurance determination and mechanisms, credit determination, accounting procedures, credit withdrawals, and the use of credits. Details on the operation of the Bank will be further described in the Draft MBI per 33 CFR § 332.8 (6).

6.1 Project Representatives

Sponsor:	Delta Land Services, LLC 1090 Cinclare Drive1008 Port Allen, LA 70767 Attn: Daniel Bollich Phone: 225-388-5146 Electronic Mail: daniel@deltaland-services.com
Landowner:	Delta Land Services, LLC 1090 Cinclare Drive1008 Port Allen, LA 70767 Attn: D. Winship Songy Phone: 225-343-3900 Electronic Mail: win@deltaland-services.com

6.2 Qualifications of the Sponsor

Per 33 CFR § 332.8(d) (2) (vi.), this section describes the Sponsor's qualifications to successfully complete all work associated with establishment and operation of the proposed BPCMB Amendment One. DLS will serve as the Sponsor and is a land management and restoration company whose technical staff includes Certified Wildlife Biologists (The Wildlife Society), Professional Wetland Scientists (Society of Wetland Scientists), Certified Foresters (Society of American Foresters) and Certified Ecological Restoration Practitioners (Society for Ecological Restoration). In addition, DLS has construction specialists experienced in wetland construction activities such as heavy equipment operation, vegetation establishment, herbicide application, and contractor management. The biographies of DLS personnel are available at www.deltaland-services.com.

DLS currently operates 18 approved wetland and/or stream mitigation banks within the CEMVN, CEMVK, CESWG and CESWF totaling 8,349.0 acres. These are the Bayou Conway Mitigation Bank (MVN-2010-01111), Roseland Refuge Mitigation Bank (MVK-2010-01423), Oak Land Mitigation Bank (MVK-2011-00308), Bayou Choupique Mitigation Bank (MVN-2011-00824), Ponderosa Ranch of Pointe Coupee Mitigation Bank (MVN-2011-03213), Ponderosa Ranch of Pointe Coupee Mitigation Bank Amendment One (MVN-2015-00393), Danza del Rio Mitigation Bank (SWG-2011-00566), Moss Lake Mitigation Bank (MVN-2012-02652), Phillips Creek Mitigation Bank (SWF-2012-00417), Graham Creek Mitigation Bank (SWF-2011-00309), Bayou Fisher Mitigation Bank (MVN-2013-02342), Bayou Fisher Mitigation Bank Amendment One (MVN-2014-02764), Little Bayou Pierre Mitigation Bank (MVK-2012-00555), Laurel Valley Coastal Mitigation Bank (MVN-2013-02798), Laurel Valley Coastal Mitigation Bank Amendment One (MVN-2015-0149), Belle Pointe Coastal Mitigation Bank (MVN-2014-02764), South Fork Coastal Mitigation Bank (MVN-2014-01888), and Bayou Maringouin Umbrella Mitigation Bank – Maringouin Site (MVN-2015-01994). DLS currently has 7 pending mitigation banks that are under review with the CEMVN, CEMVK and CESWG totaling 3,423.6 acres. These include the proposed South Fork II Coastal Mitigation Bank (MVN-2017-01356), Beaver Creek Mitigation Bank (MVN-2017-00626), Long Island Cove Mitigation Bank (SWG-2014-00210), Crooked Bayou Mitigation Bank (MVK-2015-00527), Cane River Mitigation Bank (MVK-2015-00472), the Bayou La Carpe Coastal Mitigation Bank (MVN-2016-00147) and the Bayou Maringouin Umbrella Mitigation Bank – Ramah Site (MVN-2015-01994). In addition to mitigation banking, DLS serves as the responsible party for the establishment and maintenance of 3,936.6 acres of approved Permittee-Responsible Mitigation (PRM) wetland and stream projects

6.3 Proposed Long-Term Ownership and Management Representatives

DLS will own the BPCMB Amendment One and will be the long-term manager but may appoint a Long-term Steward in accordance with 33 CFR § 332.7 (d) and approval from the CEMVN.

6.4 Site Protection

In order to provide for such protection, DLS shall execute a perpetual conservation servitude (pursuant to the Louisiana Conservation Servitude Act, R.S. 9:1271 *et seq*.) on all acreage identified as the BPCMB Amendment One and record it in the Mortgage and Conveyances Records Office of St. John the Baptist Parish. DLS will utilize a not-for-profit conservation group as the entity that will hold the servitude.

6.5 Long-Term Strategy

Long-term management will consist of monitoring, vegetation management, invasive species control, boundary maintenance, site protection and funding of such activities. Invasive species control will include control of nuisance wildlife species such as feral hogs (*Sus scrofa*). The forest will be managed to maintain or increase the biological, chemical, and physical wetland functions at the site and to achieve and maintain the desired forest conditions which will provide forested habitat capable of supporting populations for priority wildlife species. A long-term management plan will be included with the DMBI which will detail long-term management needs, costs and identify a funding mechanism in accordance with 33 CFR § 332.7 (d). The Sponsor (or Long-term Steward) and the Owner (or its heirs, assigns or purchasers) shall be responsible for protecting lands contained within the BPCMB Amendment One in perpetuity.

7. References

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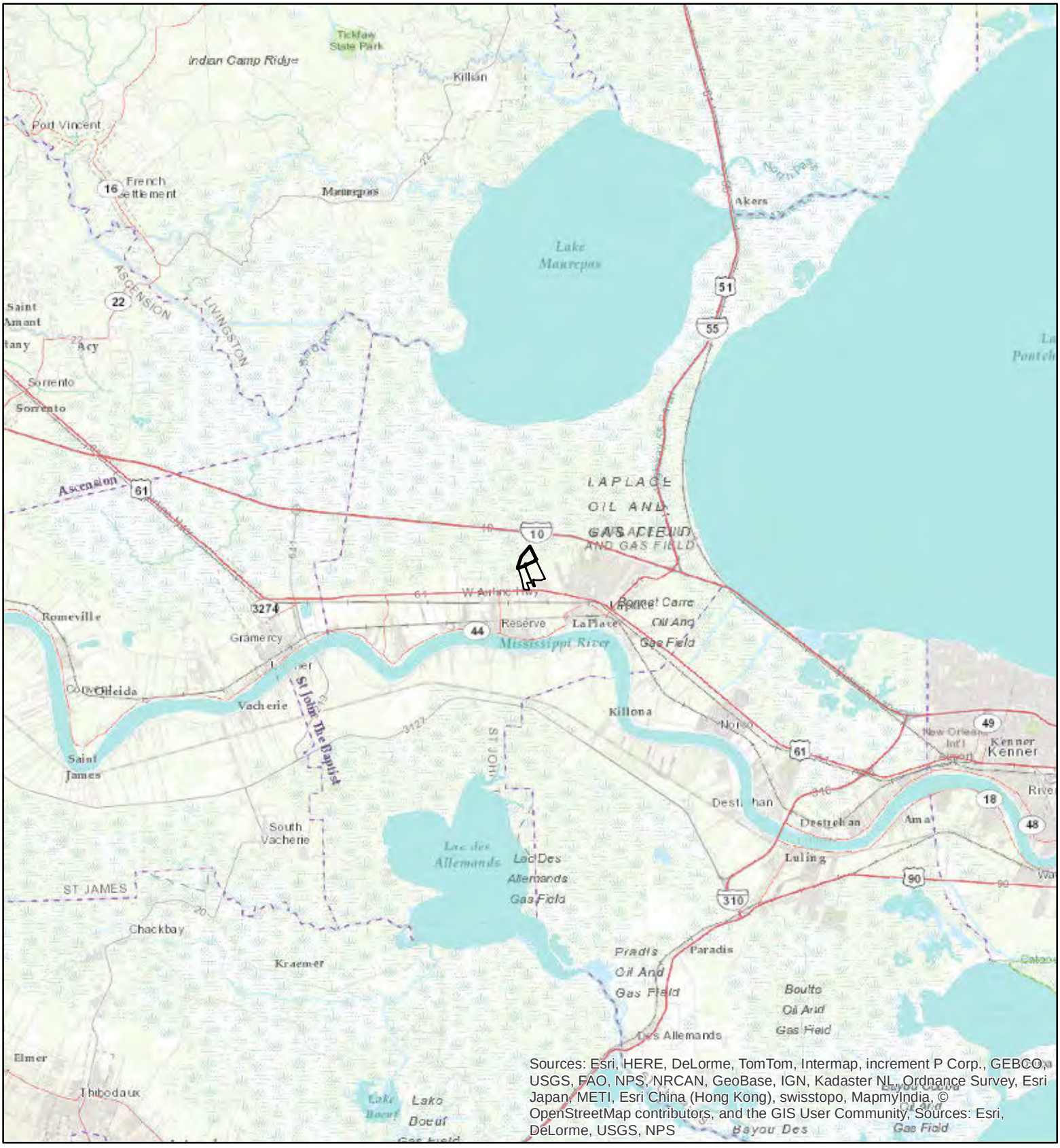
Attachment A: Map Figures



Legend

- Project Area (185.2 acres)
- Existing Belle Pointe Coastal Mitigation Bank (387.6 acres)

0 2.5 5 10

Miles

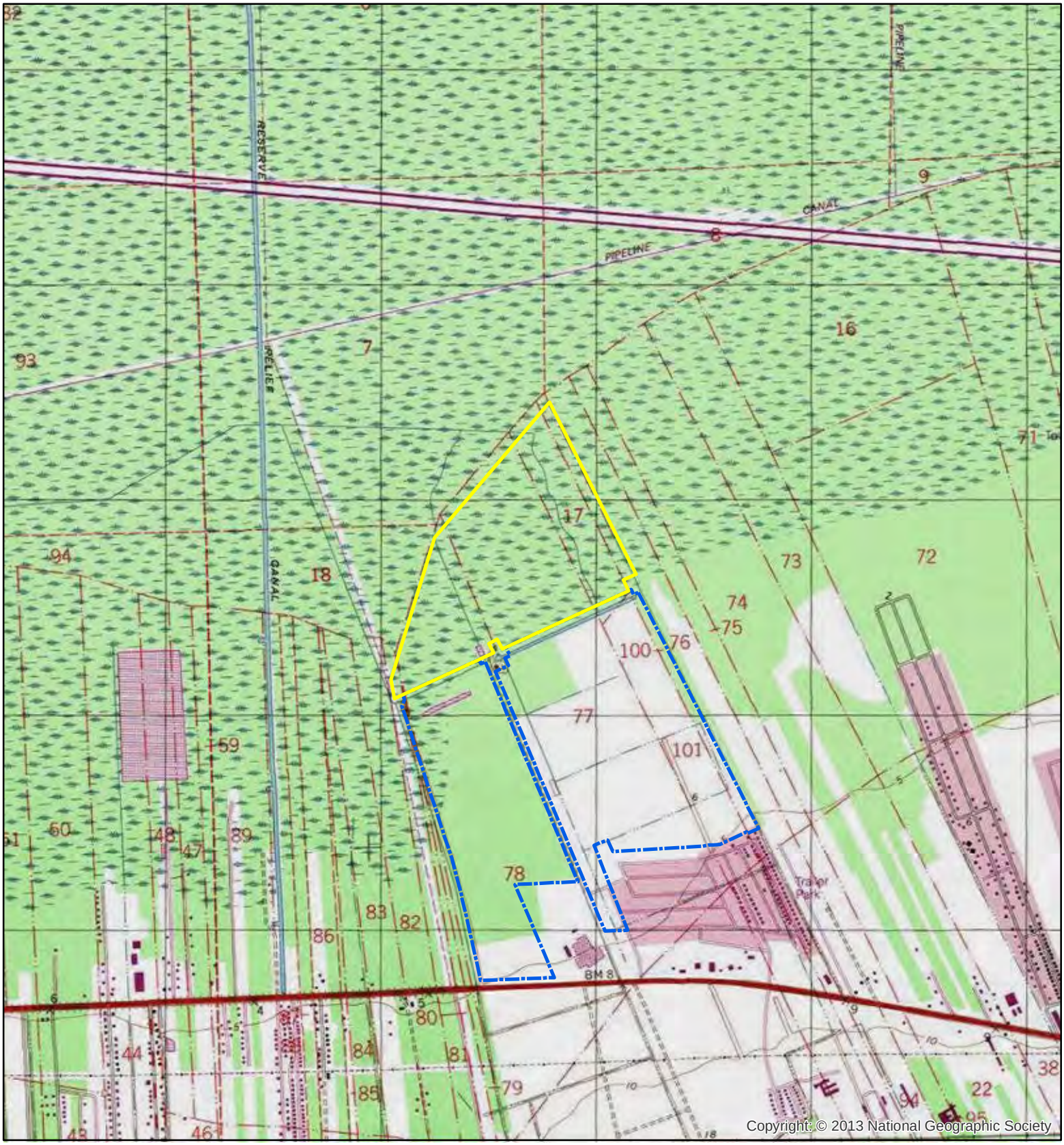
Belle Pointe Coastal Mitigation Bank Amendment One

VICINITY MAP

St. John the Baptist Parish, LA

Created : TSC/ARCVIEW	
Approved : LJW	
Date: 09/10/2018	
Map: F01_VicinityMap.mxd	

FIGURE 1



Legend

Project Area (185.2 acres)

Existing Belle Pointe Coastal Mitigation Bank (387.6 acres)

2,000 1,000 0 2,000

Feet

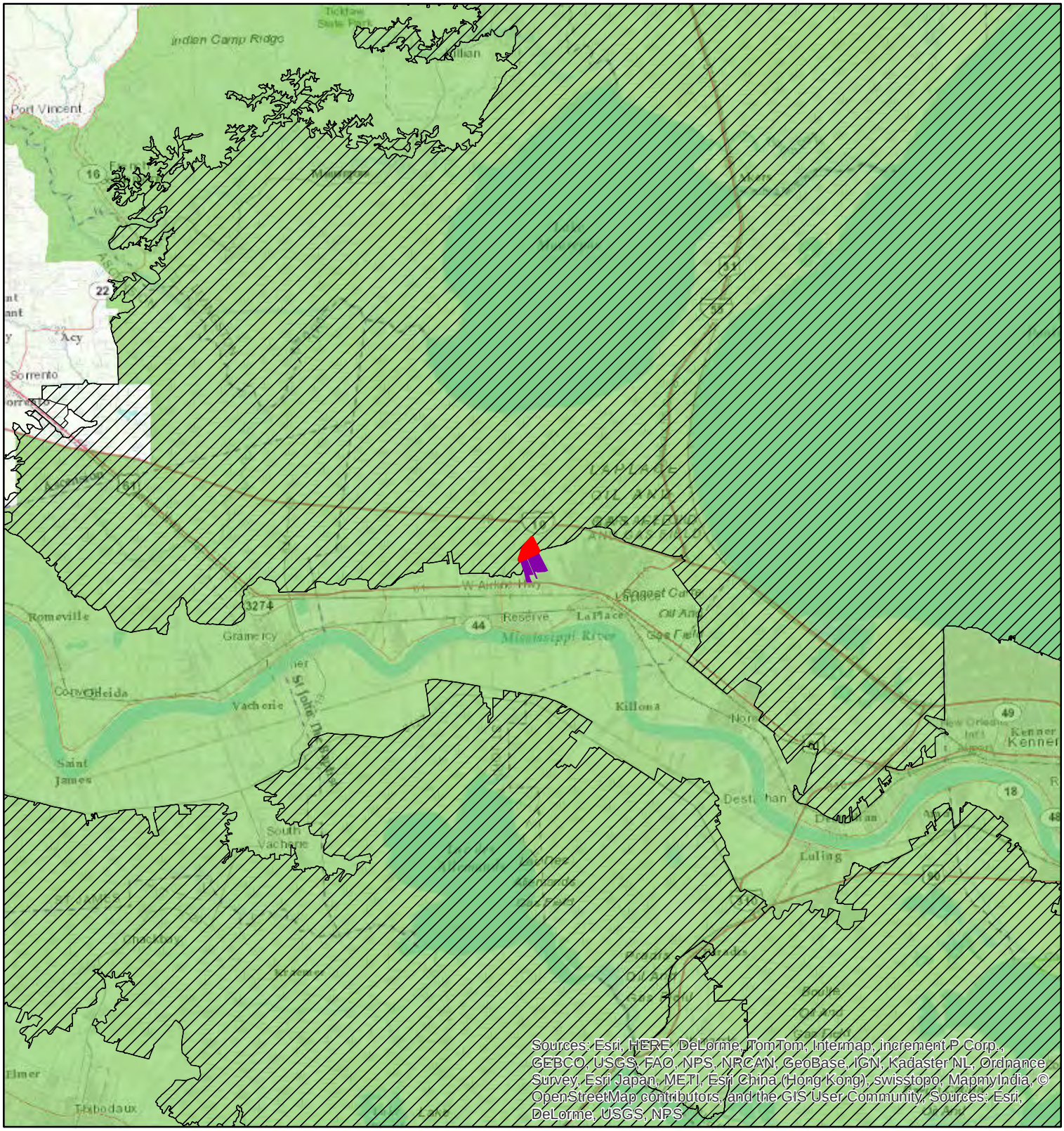
Belle Pointe Coastal Mitigation Bank Amendment One

USGS 7.5-MINUTE QUADRANGLE MAP

St. John the Baptist Parish, LA

Created : TSC/ARCVIEW	
Approved : LJW	
Date: 09/10/2018	
Map: F02_QuadMap.mxd	

FIGURE 2



Legend

- Project Area (185.2 acres)
- Existing Belle Pointe Coastal Mitigation Bank (387.6 acres)
- Louisiana Coastal Wetlands Conservation Plan Boundary
- Louisiana Coastal Zone Boundary

0 2.5 5 10

Miles

Belle Pointe Coastal Mitigation Bank Amendment One
COASTAL ZONE AND COASTAL WETLANDS CONSERVATION PLAN BOUNDARY
St. John the Baptist Parish, LA

Created : TSC/ARCVIEW	
Approved : LJW	
Date: 09/10/2018	
Map: F03_CoastalBoundaries	

FIGURE 3

- Project Area (185.2 ac)
- Existing Belle Pointe Coastal Mitigation Bank (387.6 ac)
- Coastal Swamp Enhancement (17.0 ac)
- Coastal Swamp Preservation (143.0 ac)
- Coastal BLH Preservation (24.4 ac)
- Other Waters to be Plugged (0.5 ac)
- Other Waters to Remain (0.3 ac)
- Spoil Bank to be Gapped (777 linear ft)

Note: For the purpose of OCM crediting, a total of 160.0 acres constitutes Swamp Enhancement, which consists of 143.0 acres of Coastal Swamp Preservation and 17.0 acres of Coastal Swamp Enhancement. For the purpose of OCM crediting, a total of 24.4 acres will be considered BLH Enhancement.

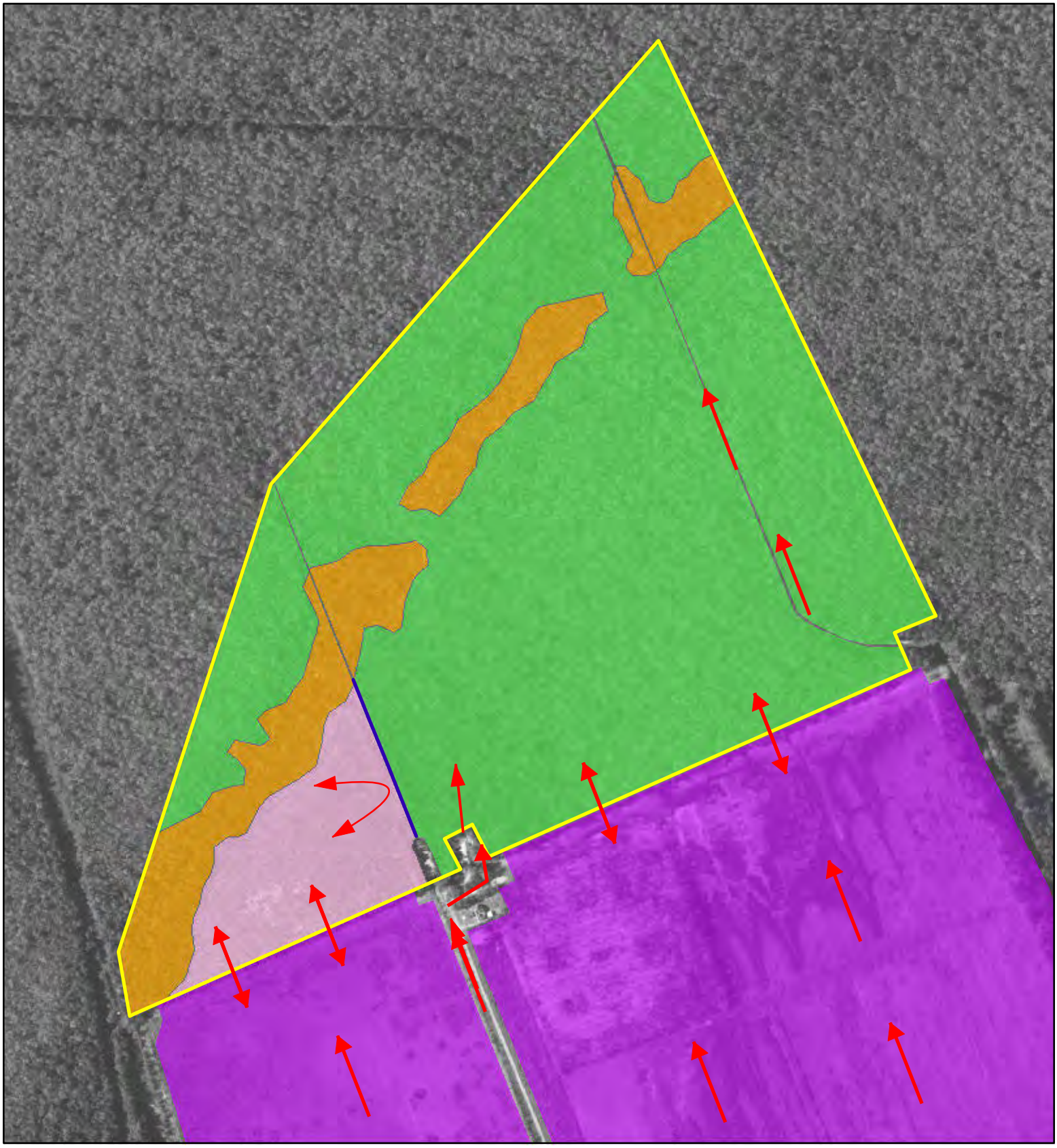
Belle Pointe Coastal Mitigation Bank Amendment One

MITIGATION FEATURES

St. John the Baptist Parish, LA

Created : TSC/ARCVIEW	
Approved :LJW	
Date: 10/04/2018	
Map: F04_MitigationFeatures.mxd	

FIGURE 4



Project Area (185.2 acres)
Existing Belle Pointe Coastal Mitigation Bank (387.6 acres)
BLH Forest
Swamp Forest
Swamp Scrub-Shrub
Water
Spoil Bank to be Gapped
Flow Direction

0 300 600 1,200
Feet

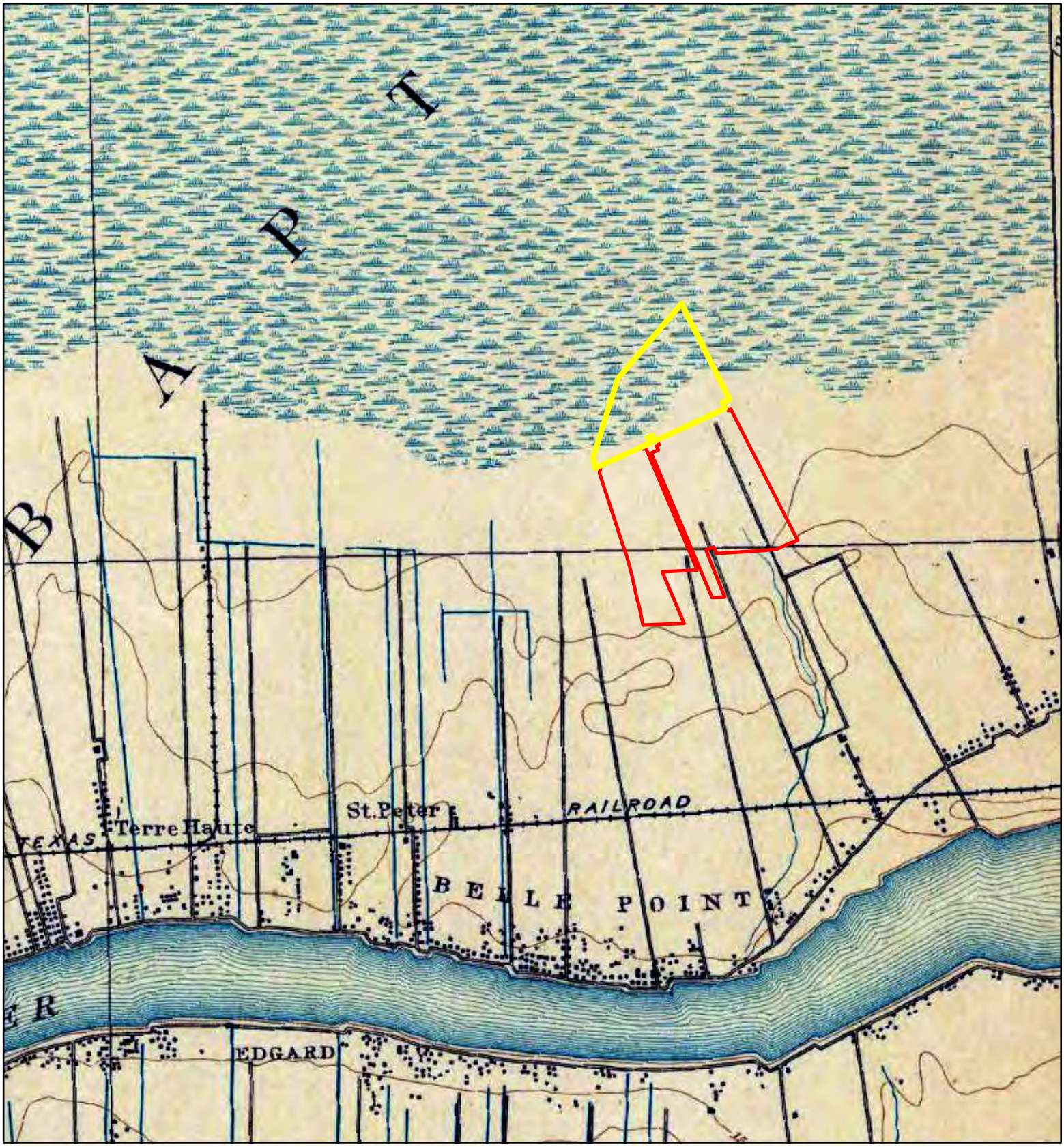
Belle Pointe Coastal Mitigation Bank Amendment One

EXISTING CONDITIONS

St. John the Baptist Parish, LA

Created : TSC/ARCVIEW	
Approved : LJW	
Date: 09/10/2018	
Map: F05_ExistingCondition.mxd	

FIGURE 5



Legend

Project Area (185.2 acres)

Existing Belle Pointe Coastal Mitigation Bnak (387.6 acres)

0 1,800 3,600 7,200

Feet

Belle Pointe Coastal Mitigation Bank Amendment One

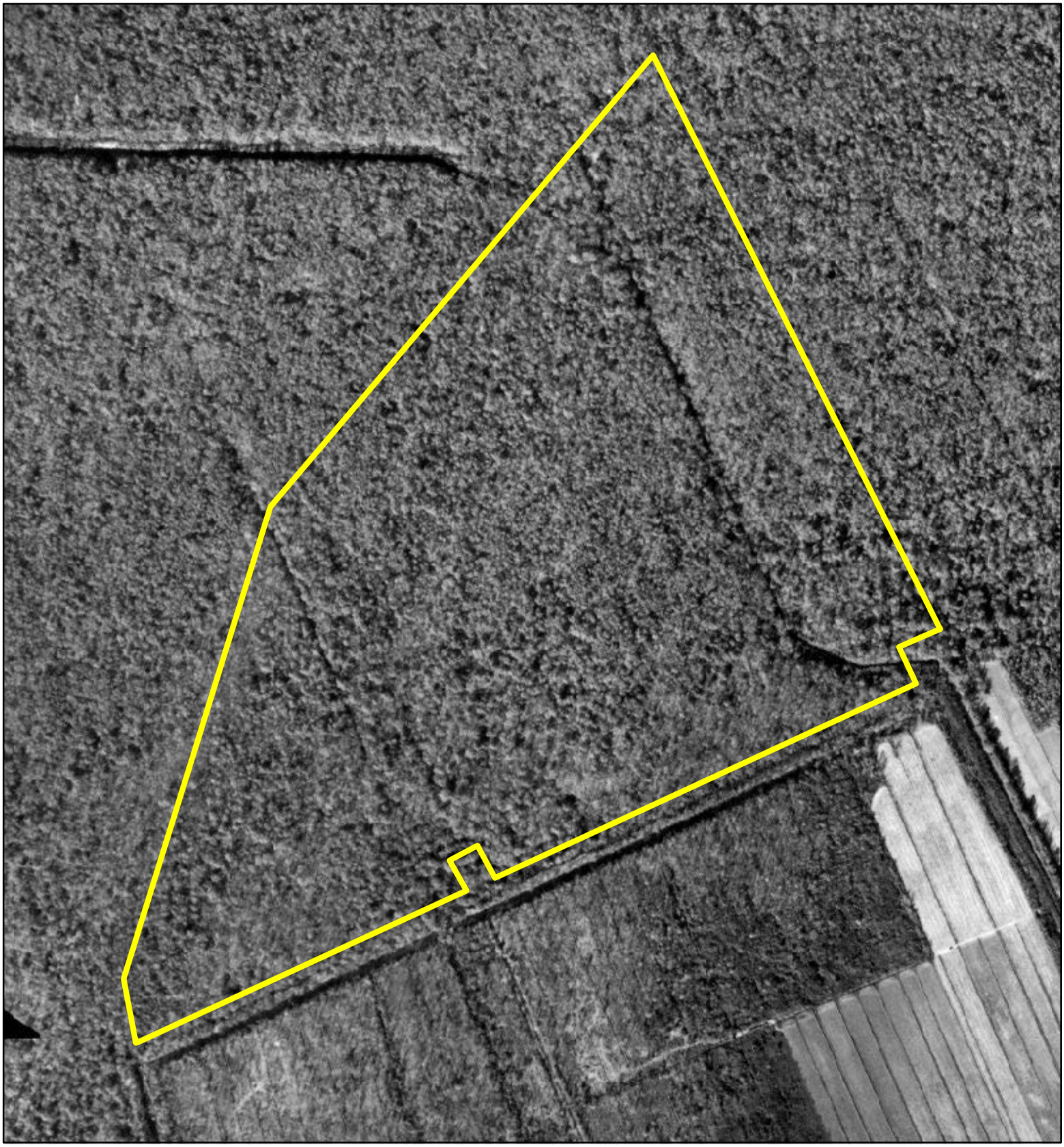
1892 Mount Airy Quadrangle Map

St. John the Baptist Parish, LA

Created : TSC/ARCVIEW	
Approved : LJW	
Date: 09/10/2018	
Map: F06_1892Quad.mxd	

DELTA LAND SERVICES

FIGURE 6



Legend

Project Area (185.2 acres)

0 300 600 1,200

Feet

Belle Pointe Coastal Mitigation Bank Amendment One

1940 Aerial Photography

St. John the Baptist Parish, LA

Created : TSC/ARCVIEW	
Approved : LJW	
Date: 09/10/2018	
Map: F07_1940.mxd	

FIGURE 7

Legend

Project Area (185.2 acres)

0 300 600 1,200

Feet

Belle Pointe Coastal Mitigation Bank Amendment One

1953 Aerial Photography

St. John the Baptist Parish, LA

Created : TSC/ARCVIEW	
Approved : LJW	
Date: 09/10/2018	
Map: F08_1953.mxd	

FIGURE 8

Legend

Project Area (185.2 acres)

0 300 600 1,200

Feet

Belle Pointe Coastal Mitigation Bank Amendment One

1957 Aerial Photography

St. John the Baptist Parish, LA

Created : TSC/ARCVIEW	
Approved : LJW	
Date: 09/10/2018	
Map: F09_1957.mxd	

FIGURE 9

Legend

Project Area (185.2 acres)

0 400 800 1,600

Feet

Belle Pointe Coastal Mitigation Bank Amendment One

1982 Aerial Photography

St. John the Baptist Parish, LA

Created : TSC/ARCVIEW	
Approved : LJW	
Date: 09/10/2018	
Map: F10_1982.mxd	

FIGURE 10

Legend

Project Area (185.2 acres)

0 300 600 1,200

Feet

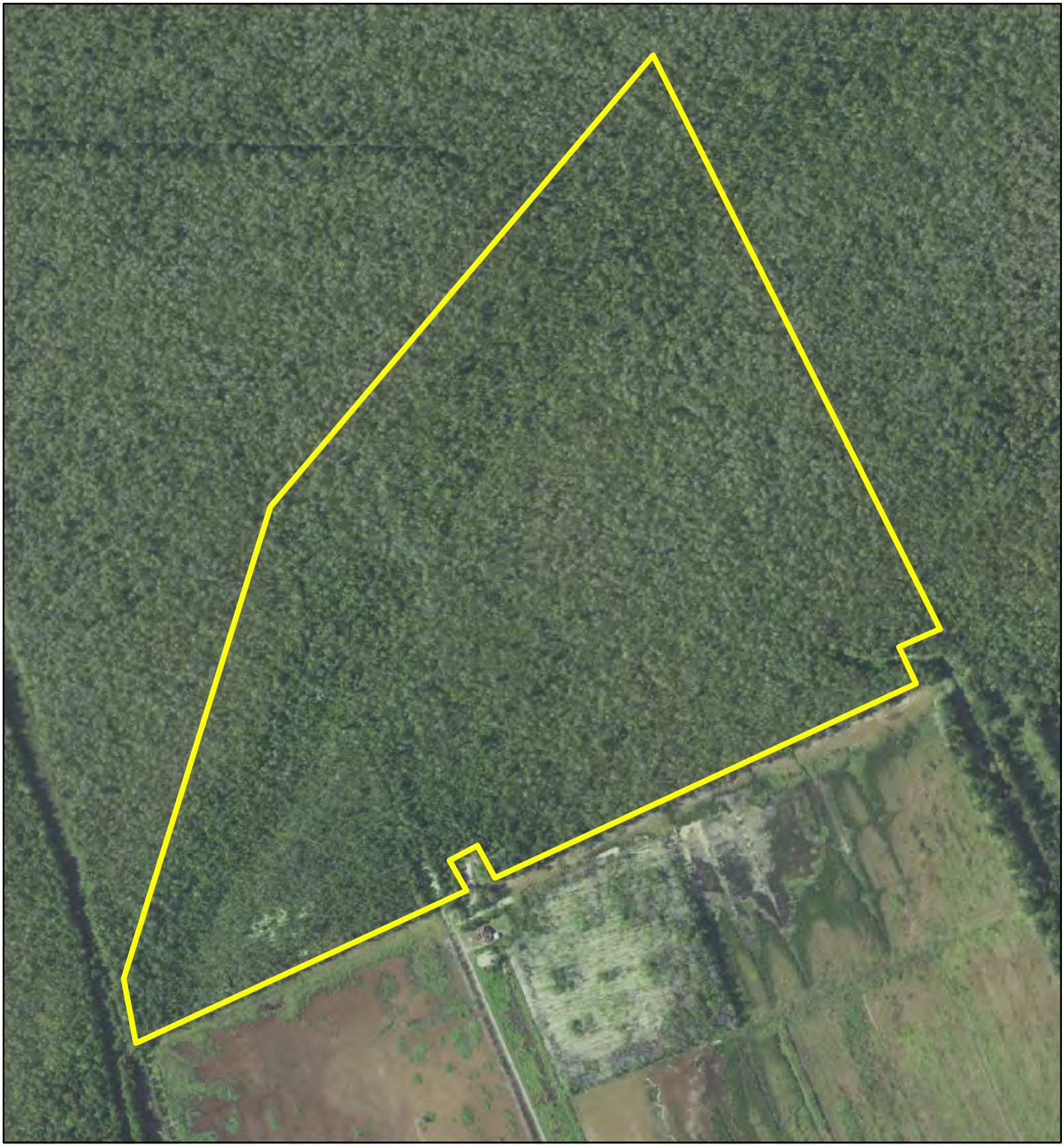
Belle Pointe Coastal Mitigation Bank Amendment One

2005 Aerial Photography

St. John the Baptist Parish, LA

Created : TSC/ARCVIEW	
Approved : LJW	
Date: 09/10/2018	
Map: F11_2005.mxd	

FIGURE 11



Legend

Project Area (185.2 acres)

0 300 600 1,200

Feet

Belle Pointe Coastal Mitigation Bank Amendment One

2017 Aerial Photography

St. John the Baptist Parish, LA

Created : TSC/ARCVIEW	
Approved : LJW	
Date: 09/10/2018	
Map: F12_2017.mxd	

FIGURE 12

- Project Area (185.2 acres)
- Existing Belle Pointe Coastal Mitigation Bank (387.6 acres)
- Agriculture (5.6%)
- Freshwater Emergent Wetland (<0.01%)
- Freshwater Emergent Wetland (Permenantly Flooded) (0.1%)
- Freshwater Emergent Wetland (Semipermantly Flooded) (3.6%)
- Freshwater Forested Wetland (Seasonally Flooded) (24.4%)
- Freshwater Forested Wetland (Semipermantly Flooded) (53.5%)
- Freshwater Forested Wetland (Temporarily Flooded) (1.1%)
- Freshwater Pond (1.4%)
- Freshwater Scrub-Shrub Wetland (Seasononally Flooded) (<0.01%)
- Freshwater Scrub-Shrub Wetland (Temporarily Flooded) (0.4%)
- Riverine (1.5%)
- Urban (6.1%)

2,400 1,200 0 2,400 Feet

Note: Data acquired from NWI data and modified to reflect current conditions

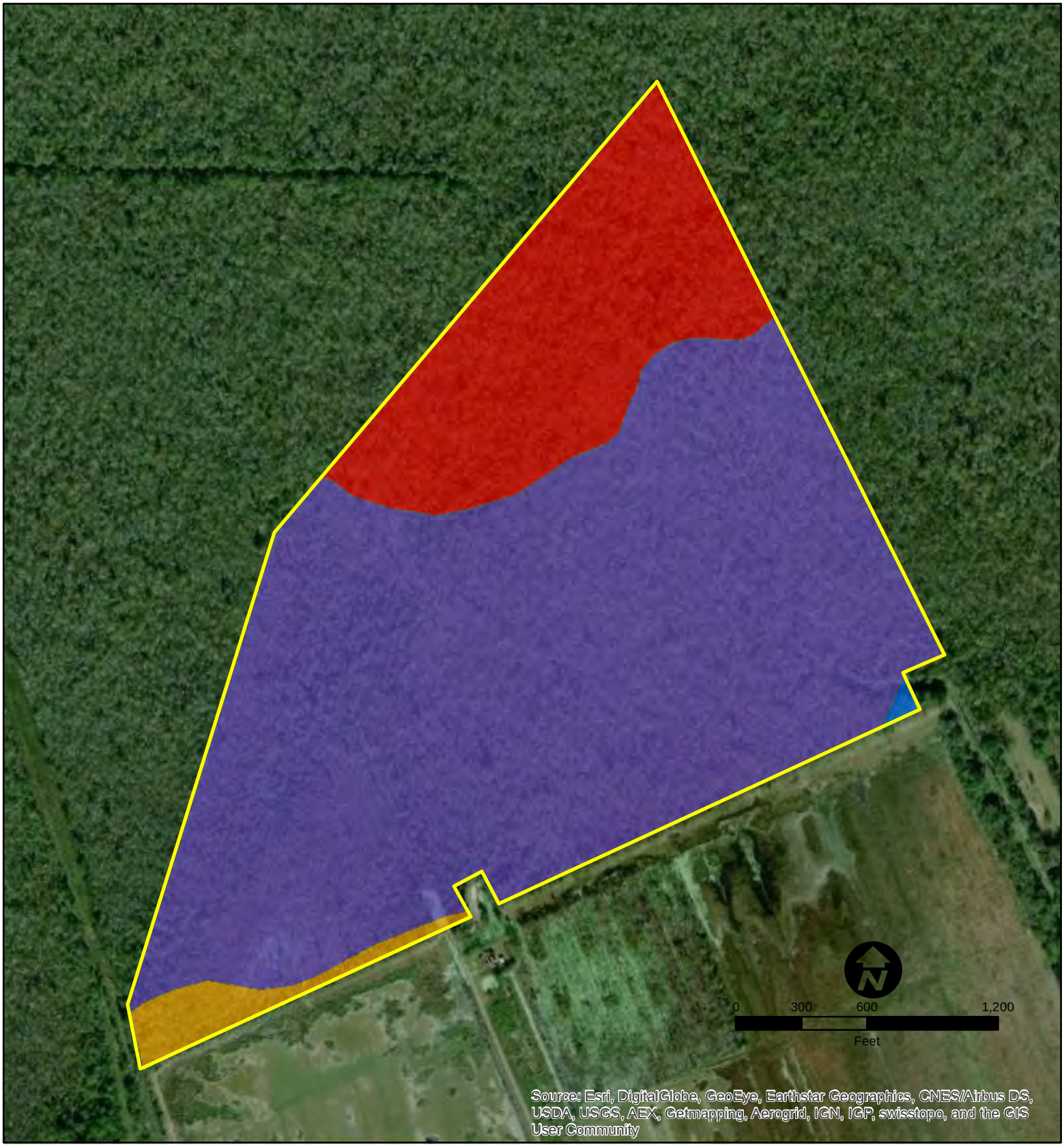
Belle Pointe Coastal Mitigation Bank Amendment One

SURROUNDING HABITAT

St. John the Baptist Parish, LA

Created : TSC/ARCVIEW	
Approved : LJW	
Date: 09/10/2018	
Map: F13_NWI.mxd	

FIGURE 13



Legend

- Project Area (185.2acres)
- Ba: Barbary soils, 0 to 1 percent slopes, frequently flooded
- GrA: Gramercy silty clay, 0 to 1 percent slopes
- SkA: Schriever clay, 0 to 1 percent slopes
- Sm: Schriever clay, 0 to 1 percent slopes, frequently flooded

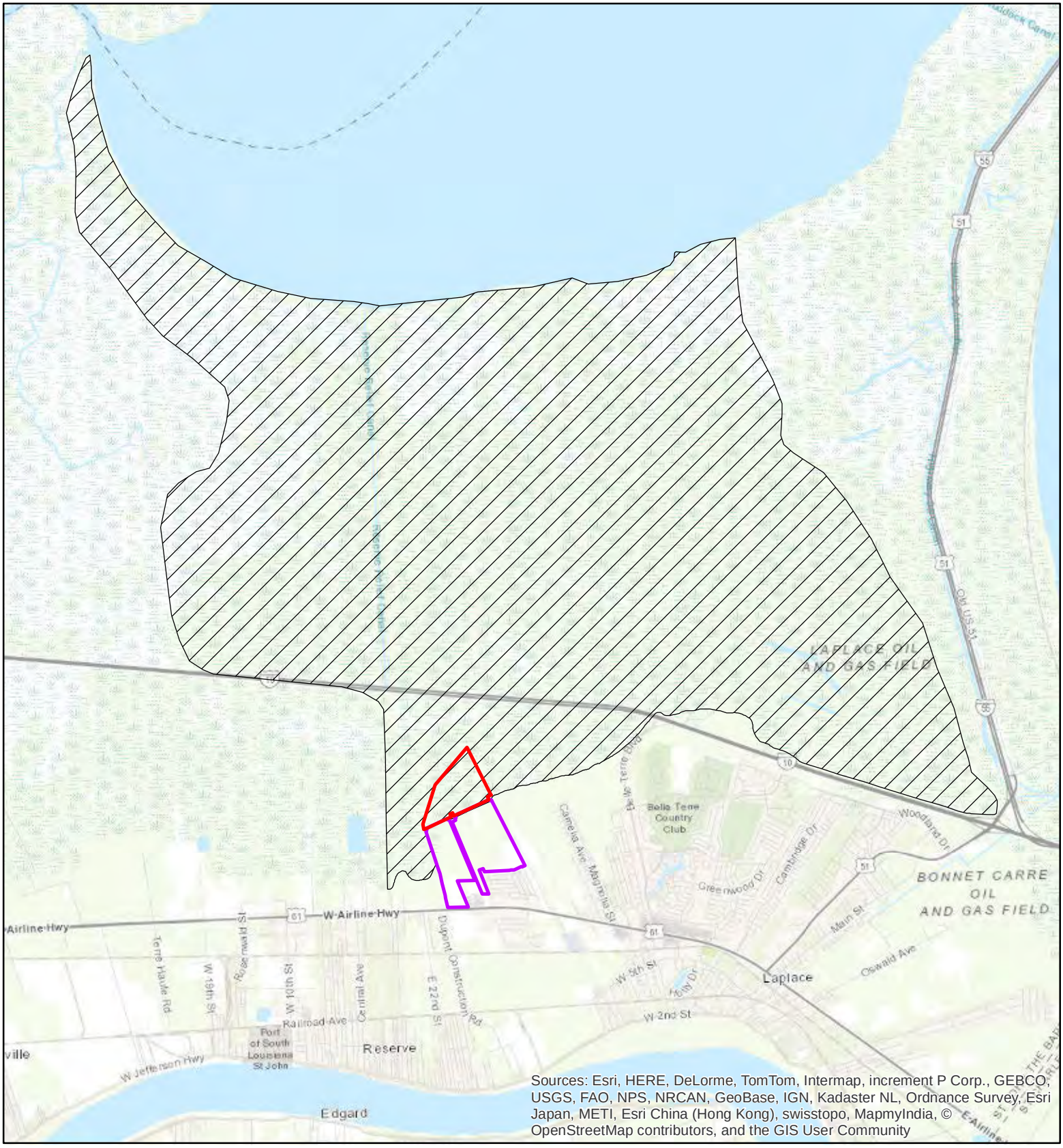
Belle Pointe Coastal Mitigation Bank Amendment One

Soils Map

St. John the Baptist Parish, LA

Created : TSC/ARCVIEW	
Approved : LJW	
Date: 09/10/2018	
Map: F14_Soils.mxd	

FIGURE 14



Legend

- Project Area (185.2 acres)
- Existing Belle Pointe Coastal Mitigation Bank (387.6 acres)
- Contributing Tidal Watershed

0 3,600 7,200 14,400

Feet

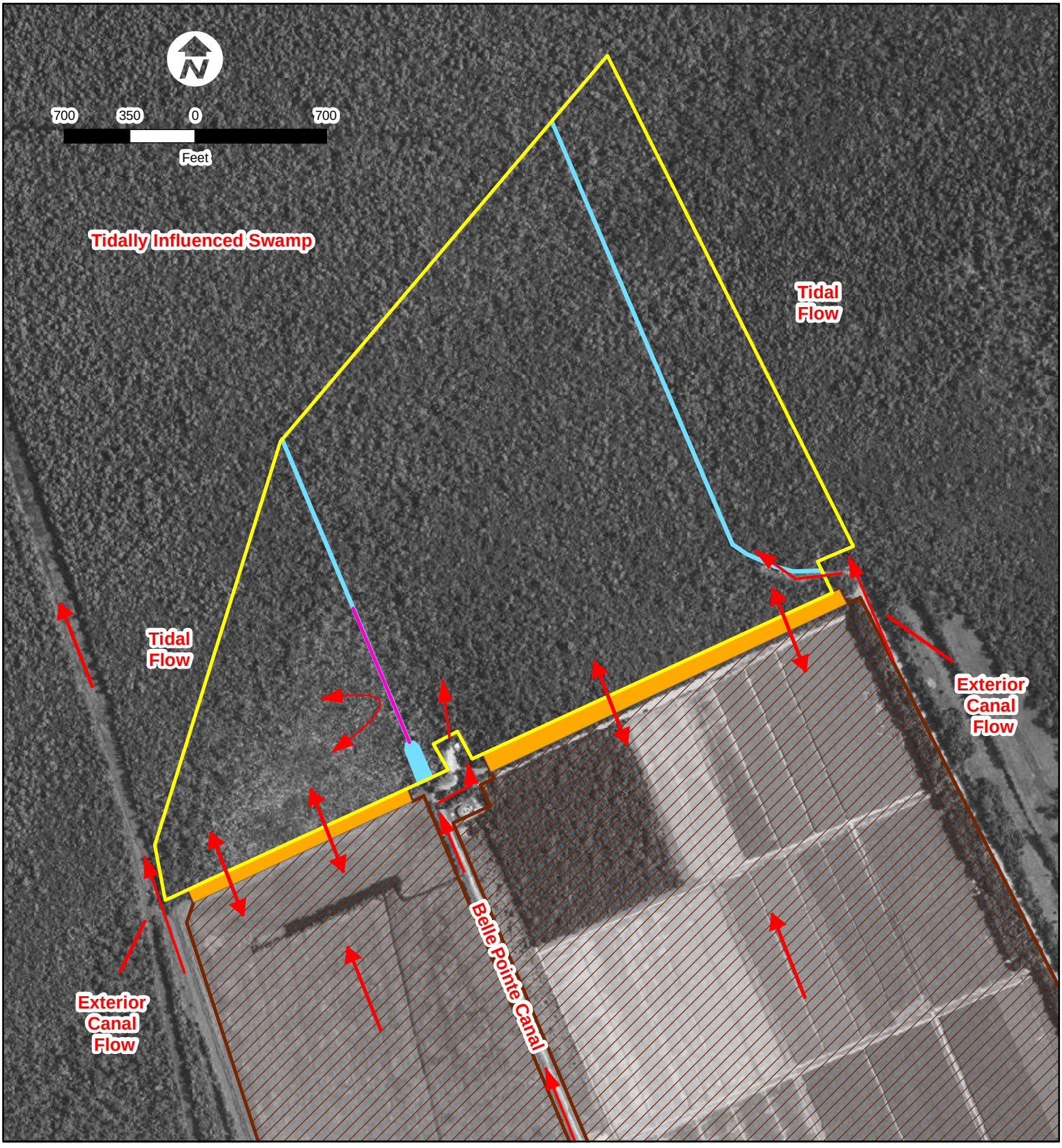
Belle Pointe Coastal Mitigation Bank Amendment One

Existing Tidal Contributing Watershed

St. John the Baptist Parish, LA

Created : TSC/ARCVIEW	
Approved : LJW	
Date: 09/10/2018	
Map: F15_Drainagearea.mxd	

FIGURE 15



Project Area (185.2 acres)

Existing Belle Pointe Coastal Mitigation Bank (387.6 acres)

Spoil Bank to be Gapped

Levees Previously Degraded

Drainage canal

Pre-Project Drainage

Note: Tidal flow connection with Belle Pointe Coastal Mitigation Bank due to levee removal in original bank.

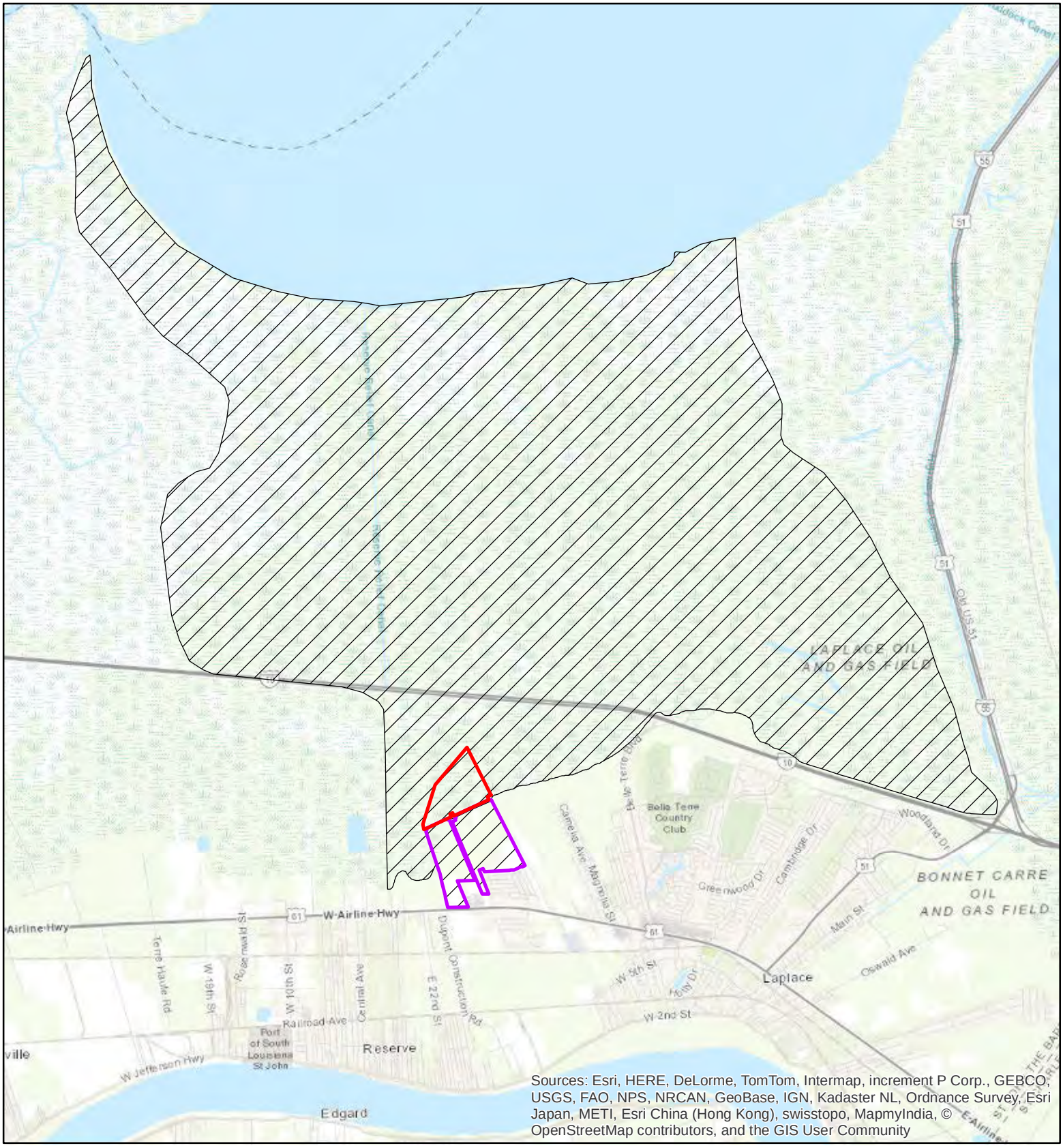
Belle Pointe Coastal Mitigation Bank Amendment One

EXISTING HYDROLOGY CONDITIONS

St. John the Baptist Parish, LA

Created : TSC/ARCVIEW	
Approved : LJW	
Date: 09/10/2018	
Map: F16_ExistingHydroCond.mxd	

FIGURE 16



Legend

- Project Area (185.2 acres)
- Existing Belle Pointe Coastal Mitigation Bank (387.6 acres)
- Contributing Tidal Watershed

0 3,600 7,200 14,400

Feet

Belle Pointe Coastal Mitigation Bank Amendment One

Potential Tidal Contributing Watershed

St. John the Baptist Parish, LA

Created : TSC/ARCVIEW	
Approved : LJW	
Date: 09/10/2018	
Map: F17_Drainagearea.mxd	

FIGURE 17

- Project Area (185.2 acres)
- Barren Land (Rock/Sand/Clay)
- Cultivated Crops
- Deciduous Forest
- Developed
- Emergent Herbaceous Wetlands
- Evergreen Forest
- Grassland/Herbaceous
- Mixed Forest
- Open Water
- Pasture Hay
- Shrub/Scrub
- Wood Wetlands

Belle Pointe Coastal Mitigation Bank Amendment One

LAND USE - LAND COVER MAP

St. John the Baptist Parish, LA

Created :TSC/ARCVIEW	
Approved : LJW	
Date: 09/210/2018	
Map: F18_LULC.mxd	

FIGURE 18

Legend

- Project Area (185.2 acres)
- Lake Pontchartrain Estuary Area

0 5 10 20

Miles

Belle Pointe Coastal Mitigation Bank Amendment One

LAKE PONTCHARTRAIN ESTUARY AREA

St. John the Baptist Parish, LA

Created : TSC/ARCVIEW	
Approved : LJW	
Date: 09/10/2018	
Map: F19_PontchEstuary.mxd	

FIGURE 19

Project Area (185.2 acres)

Existing Belle Pointe Coastal Mitigation Bank (387.6 acres)

Other Waters to Remain

Other Waters to be Plugged

Levees Previously Degraded in Original Bank

Spoil Bank to be Gapped

800 400 0 800

Feet

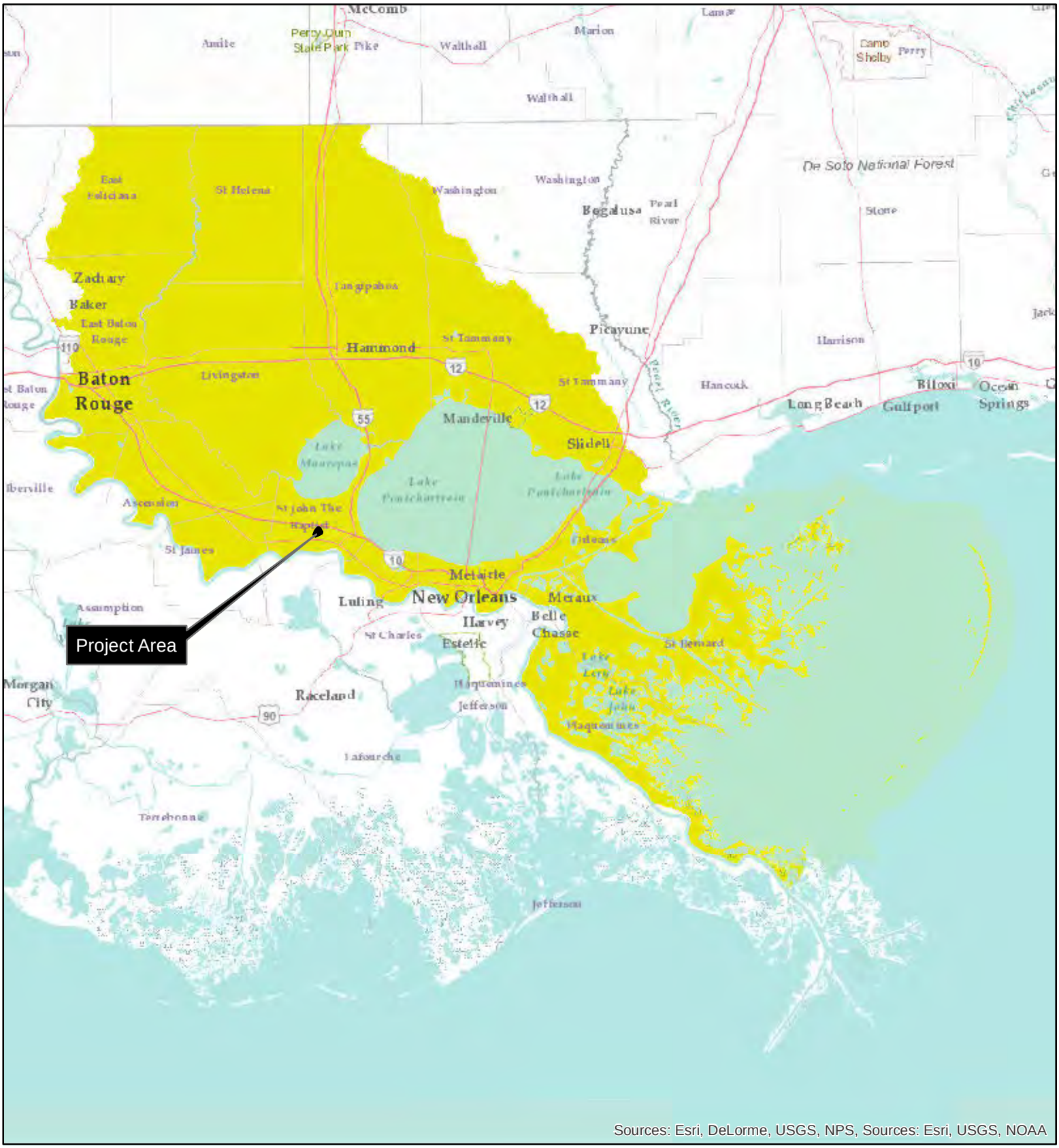
Belle Pointe Coastal Mitigation Bank Amendment One

PROPOSED HYDROLOGY CONDITIONS

St. John the Baptist Parish, LA

Created : TSC/ARCVIEW	
Approved : LJW	
Date: 9/11/2018	
Map: F20_ProposedHydroCond.mxd	

FIGURE 20



Legend

- Project Area (185.2 acres)
- Proposed Geographic Service Area

20 10 0 20

Miles

Belle Pointe Coastal Mitigation Bank Amendment One

SERVICE AREA

St. John the Baptist Parish, LA

Created :TSC/ARCVIEW	
Approved : LJW	
Date: 09/210/2018	
Map: F21_ServiceArea.mxd	

FIGURE 21

Attachment B: Tables

Table 1. Pre-Project Condition and Post-Project Mitigation Habitat Types at the Belle Pointe Coastal Mitigation Bank Amendment One in St. John the Baptist Parish, Louisiana.

Baseline Condition	Mitigation Habitat and Type	Acres
Wetland Forest	Coastal Swamp Preservation*	143.0
Wetland Scrub/Shrub	Coastal Swamp Enhancement*	17.0
Wetland Forest	Coastal BLH Preservation**	24.4
Other Waters	Other Waters to be Plugged	0.5
Other Waters	Other Waters to Remain	0.3
	Total Enhancement Credit Acreage	**17.0**
	Total Preservation Credit Acreage	**167.4**
	Total Non-mitigation Acreage	**0.8**
	Total Conservation Servitude Acreage	**185.2**

* For OCM crediting purposes, these will be considered as 160.0 acres of Swamp Enhancement.

** For OCM crediting purposes, this will be considered as 24.4 acres of BLH Enhancement.

Table 2. Planting Composition of Enhanced Baldcypress/Tupelo Swamp at the Belle Pointe Coastal Mitigation Bank in St. John the Baptist Parish, Louisiana.

Baldcypress-Tupelo Swamp Species				
Common Name	**Scientific Name**	**Indicator Status2**	**Composition3**	**Growth Habit4**
baldcypress	*Taxodium distichum*	OBL	>75%	Tree
water tupelo	*Nyssa aquatica*	OBL	<20%	Tree
Drummond red maple	*Acer rubrum* var. *drummondii*	OBL5	<20%	Tree
Swamp tupelo	*Nyssa biflora*	OBL	<20%	Tree

Attachment C: Site Photos

BLH Preservation area located in southwest portion of project area (August 8, 2017)

BLH Preservation area located in southwest portion of project area (August 8, 2017)

BLH Preservation area with approximately 80-90 stems per acre of 2 to 6-in dbh Chinese tallowtree (August 8, 2017)

Approximate 16 to 12-inch DBH sugarberry in BLH Preservation Area (August 8, 2017)

Approximate ≥20-inch DBH American elm in BLH Preservation Area (August 8, 2017)

Approximate ≥20-inch DBH sweetgum in BLH Preservation Area (August 8, 2017)

Approximate 12 to 16-inch DBH live oak in BLH Preservation Area (August 8, 2017)

Approximate ≥40-inch DBH laurel oak in BLH Preservation Area (August 8, 2017)

Scrub-Shrub (Swamp Enhancement Area) and standing snags (August 8, 2017)

Scrub-Shrub (Swamp Enhancement Area) impounded by spoil bank (August 8, 2017)

Transitional Area between BLH Preservation and Scrub-Shrub (Swamp Enhancement Area) with Chinese tallowtree (August 8, 2017)

Scrub-Shrub and standing snags (Swamp Enhancement Area) (December 2, 2014)

Swamp Forested Habitat CRMS 0059 northwest of Belle Pointe project area (January 12, 2007)

Existing spoil bank to be gapped (October 18, 2017)

Example of large planted baldcypress with predatory guards installed (August 30, 2018)

Example of large containerized baldcypress with predator guards installed (undated)

Attachment D: Water Level and Salinity Figures

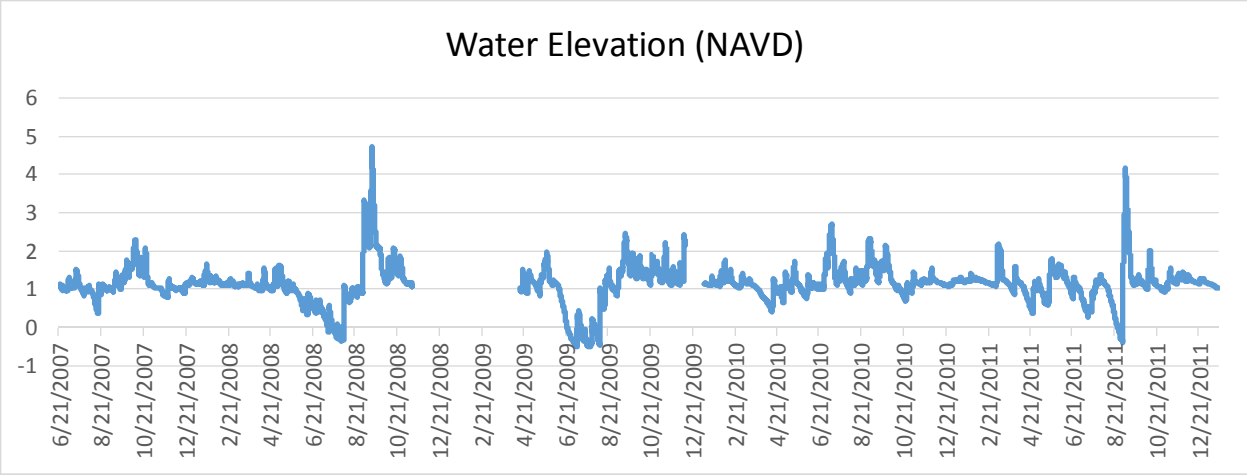


Figure 1. Adjacent Swamp Water Levels from CRMS 0059-W01

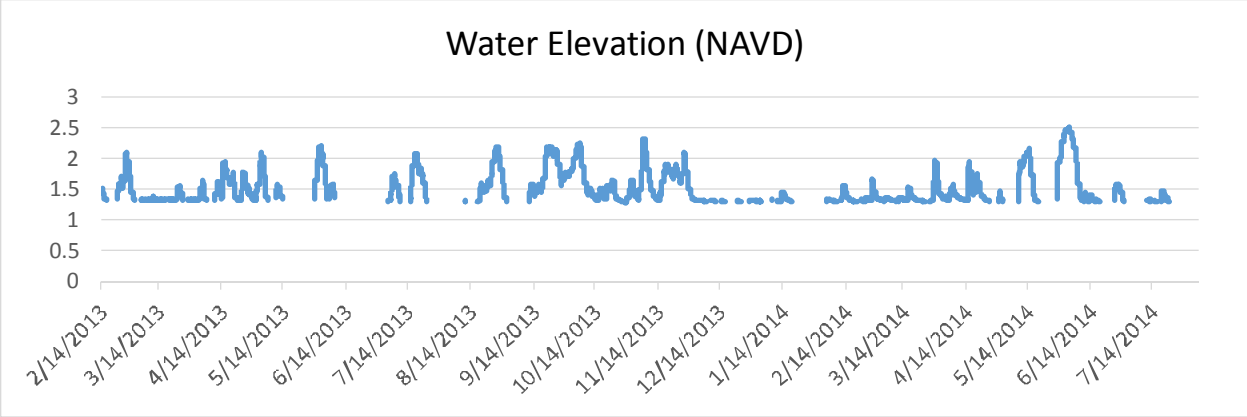


Figure 2. Adjacent Swamp Water Levels from CRMS 0059-H02

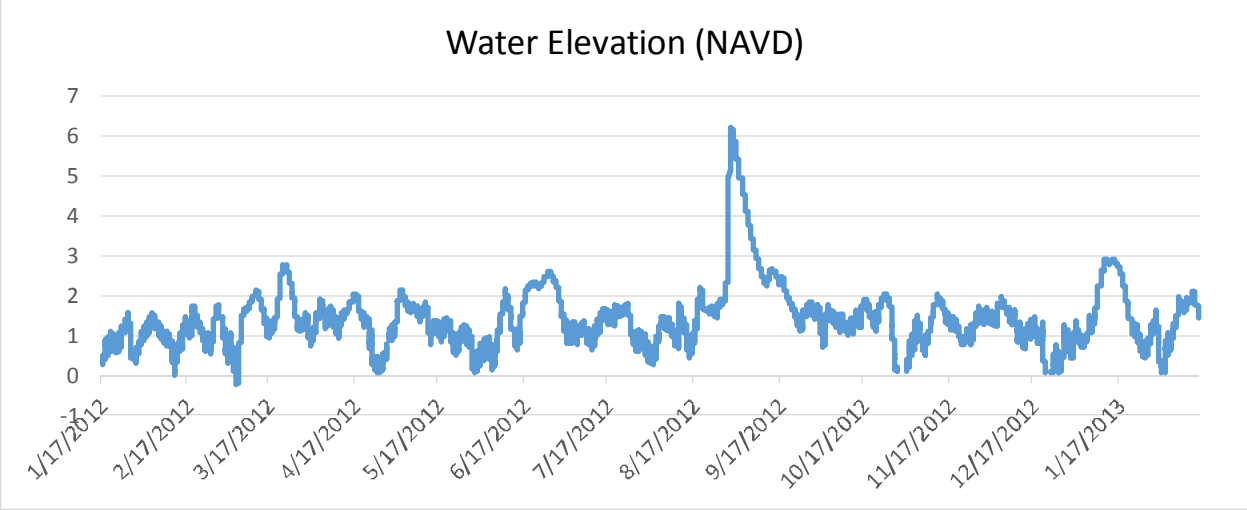


Figure 3. Reserve Relief Canal Water Levels from CRMS 0059-H01

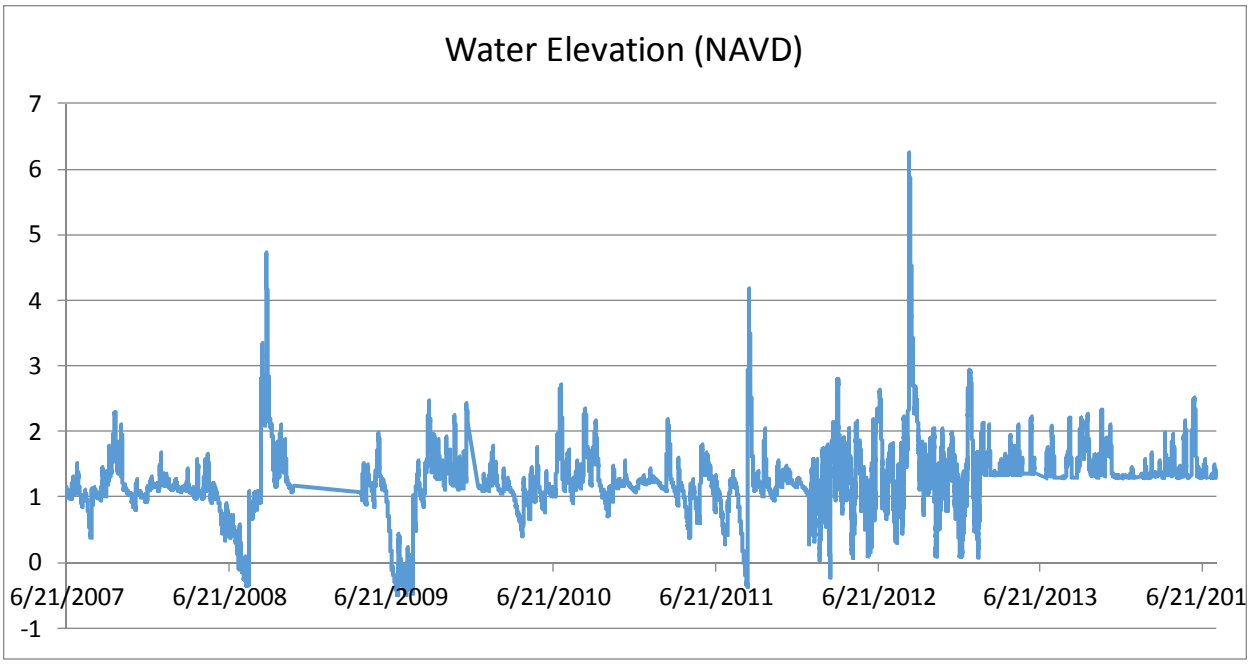


Figure 4. Combined Water Levels from CRMS 0059-W01, CRMS 0059-H01 and CRMS 0059-H02

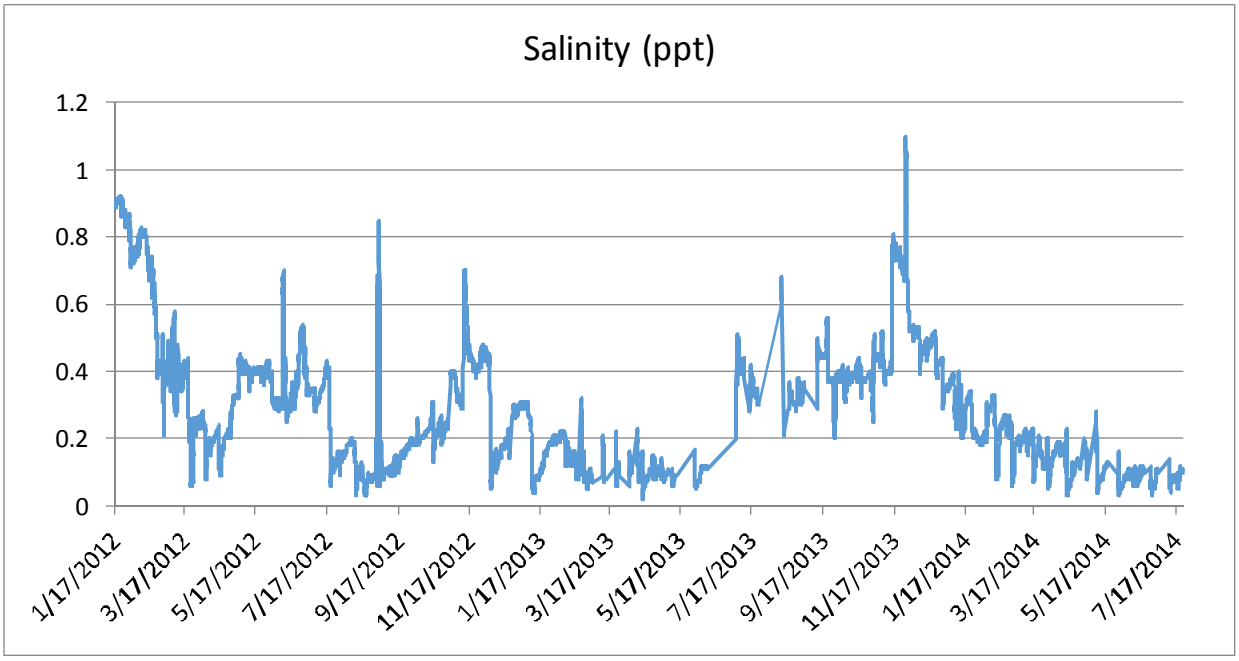
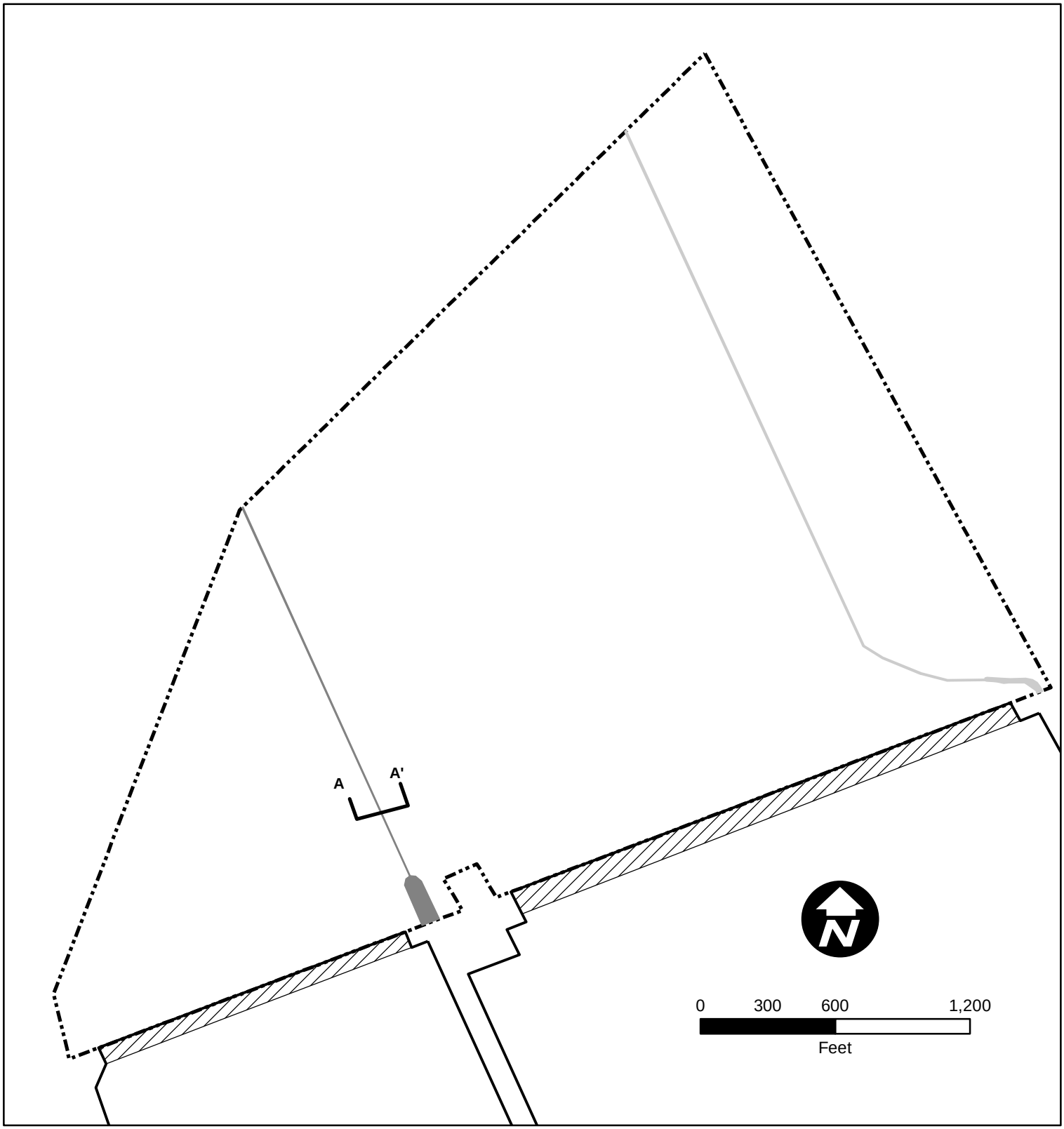


Figure 5. Salinity Levels from CRMS 0059-H01 and CRMS 0059-H02

Attachment E: Hydrology Restoration Drawings



Belle Pointe Coastal Mitigation Bank Amendment One (186.0 Acres)

Belle Pointe Coastal Mitigation Bank (387.6 Acres)

Previously Degraded Levees (4.9 Acres)

Other Waters to Remain

Other Waters to be Plugged

Note: Approximately 277 cubic yards of fill will be placed in Other Waters. A 50-foot gap in spoil bank will be constructed every 250 feet.

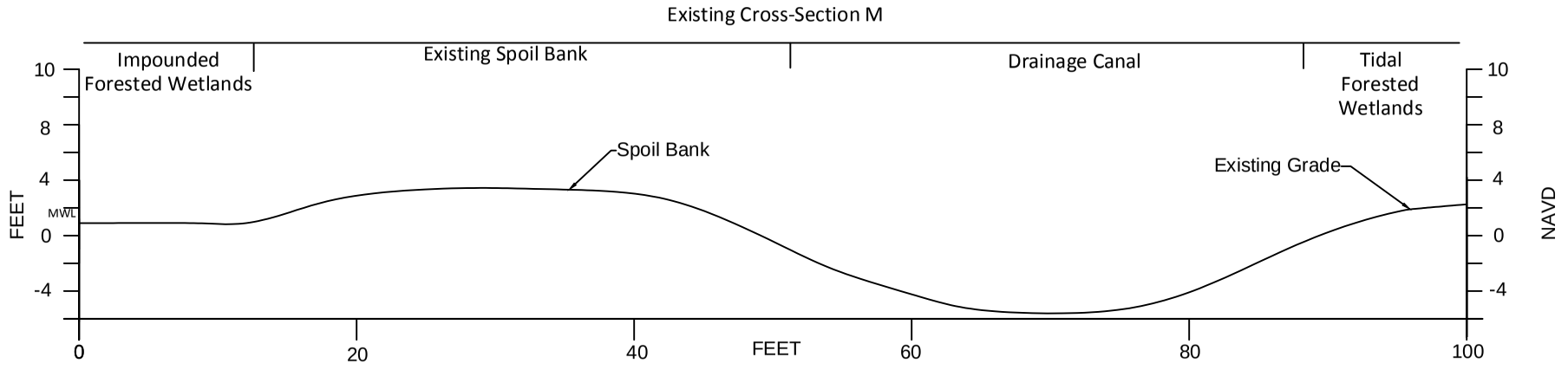
Belle Pointe Coastal Mitigation Bank

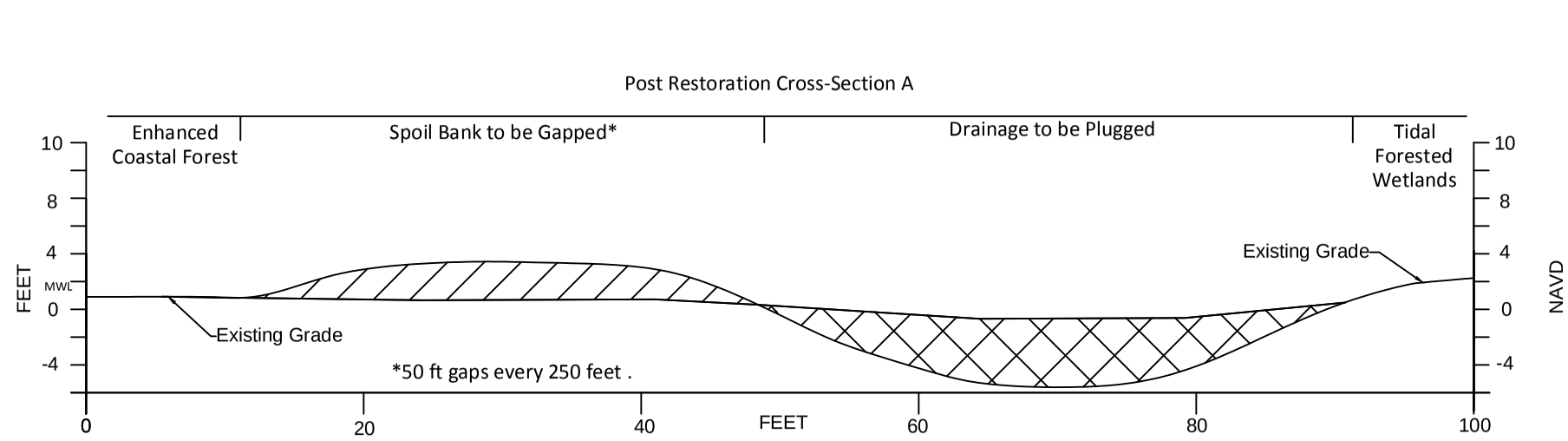
Plan View

St. John the Baptist Parish, LA

Created : LJW/ARCVIEW	
Approved : DEB	
Date: 09/29/2015	
Map No. : 20_PlanView	

FIGURE D-1





Excavation

Earthen Fill

Belle Pointe Coastal Mitigation Bank Amendment One

CROSS-SECTION A-A'

St. John the Baptist Parish, Louisiana

Created:	TSC/AutoCAD
Approved:	LJW
Date:	9/13/2018
Dwg. No.:	Xsection

DELTA LAND SERVICES

Figure D-2

Attachment F: Preliminary Jurisdictional Determination

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, NEW ORLEANS DISTRICT
7400 LEAKE AVENUE
NEW ORLEANS, LOUISIANA 70118-03651

REPLY TO
ATTENTION OF

November 9, 2017

Operations Division
Surveillance and Enforcement Section

Mr. Lee Walters
Delta Land Services, LLC
1090 Cinclare Drive
Port Allen, Louisiana 70767

Dear Mr. Walters:

Reference is made to your request for a U.S. Army Corps of Engineers' (Corps) jurisdictional determination on a project site located in Sections 17, 77, 78, and 100, Township 11 South, Range 7 East, St. John The Baptist Parish, Louisiana (enclosed map). Specifically, this project site is identified as a 187.5 acre Belle Pointe Coastal Mitigation Bank Addendum.

Based on review of maps, aerial photography, soils data, and the information provided with your request, we have determined that this project site is wetland and may be subject to Corps' jurisdiction. The approximate limits of the wetland are designated in red on the map. A Department of the Army (DA) under Section 404 of the Clean Water Act will be required prior to the deposition or redistribution of dredged or fill material into wetlands that are waters of the U.S. Additionally, a DA permit will be required if you propose to deposit dredged or fill material into non-wetland waters subject to Corps' jurisdiction. Non-wetland waters that may be subject to Corps' jurisdiction are designated in blue on the map.

Please be advised that this project site is in the Louisiana Coastal Zone and a Coastal Use Permit may be required prior to initiation of any activities on this site. For additional information, contact Ms. Christine Charrier, Office of Coastal Management, Louisiana Department of Natural Resources at (225) 342-7953.

You are advised that this preliminary jurisdictional determination is valid for a period of 5 years from the date of this letter unless new information warrants revision prior to the expiration date. Additionally, this determination is valid for the identified proposed project only and is not to be used in decision-making for any other project.

Should there be any questions concerning these matters, please contact Ms. Christine Thibodeaux at (504) 862-2278 and reference our Account No.MVN-2014-02764-1-ST. If you have specific questions regarding the permit process or permit applications, please contact our Eastern Evaluation Section at (504) 862-2292.

Sincerely,

for Martin S. Mayer
Chief, Regulatory Branch

Enclosures

USACE **PRELIMINARY**

INHOUSE NOVEMBER 8, 2017

BOTANIST: CHRISTINE THIBODEAUX

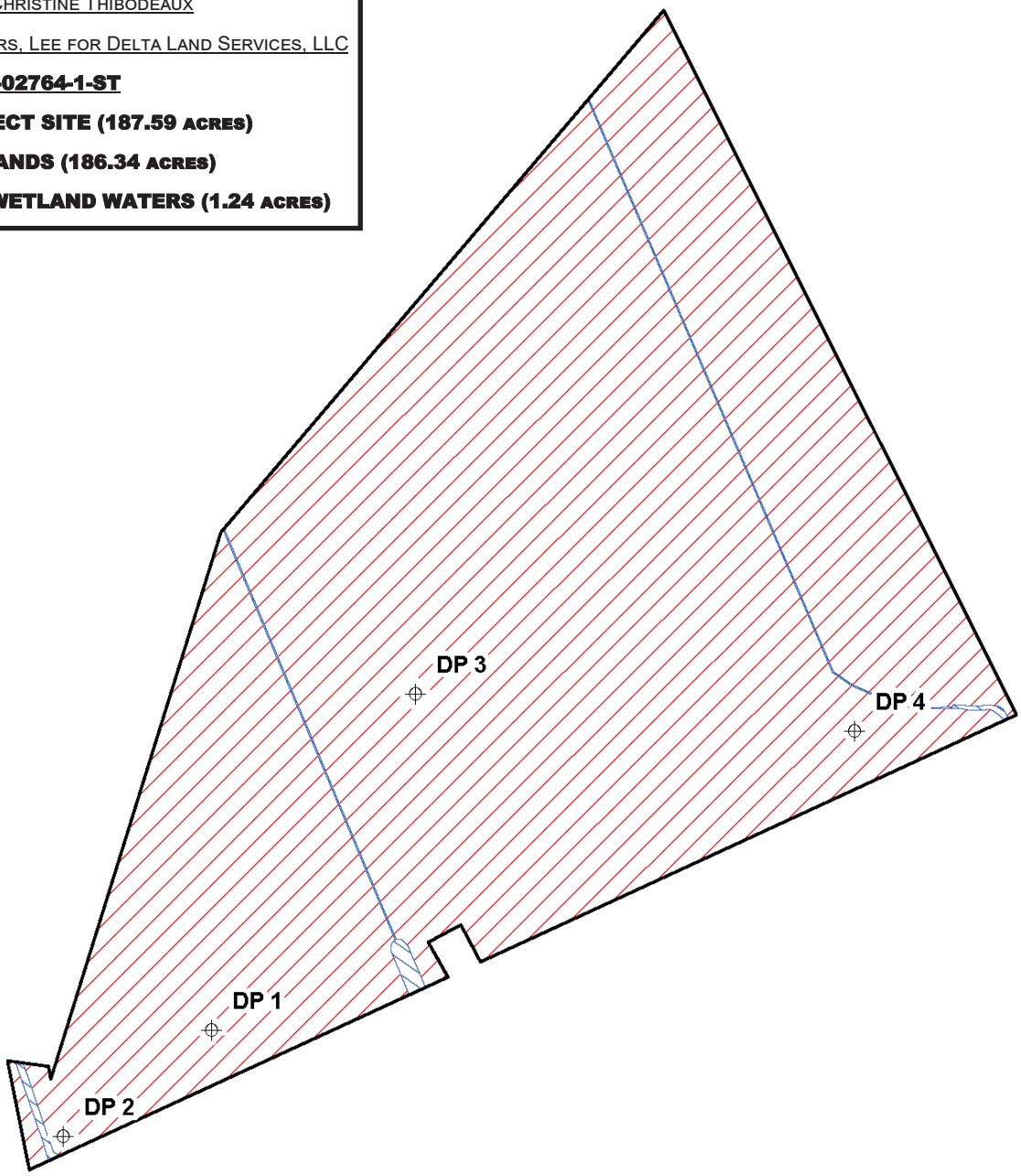
FOR: WALTERS, LEE FOR DELTA LAND SERVICES, LLC

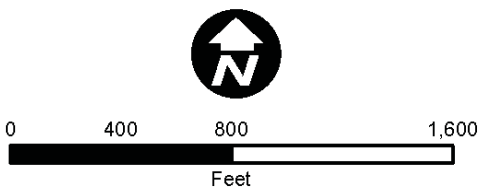
#MVN-2014-02764-1-ST

PROJECT SITE (187.59 ACRES)

WETLANDS (186.34 ACRES)

NON-WETLAND WATERS (1.24 ACRES)





Belle Pointe Coastal Mitigation Bank Addendum

DELINEATION MAP

St. John the Baptist Parish, LA

Created : LJW/ARCVIEW	
Approved : DEB	
Date : 9/21/17	
Map No. : F05_DelineationMap	

FIGURE 5

Attachment G: Draft Louisiana Wetland Rapid Assessment Method

Louisiana Wetland Rapid Assessment Method (LRAM)

CEMVN Acct #		MVN-2014-02764			Bank Name				
Acres Mitigation		184.4			Belle Pointe Swamp				
Watershed Basin		Lake Pontchartrain							
		Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8
Mitigation Factors	Mitigation Type	Enhanc	Preser	Pick Here	Pick Here	Pick Here	Pick Here	Pick Here	Pick Here
		3.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
	Management	None	Pick Here	Pick Here	Pick Here	Pick Here	Pick Here	Pick Here	Pick Here
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Negative Influences	Low	Pick Here	Pick Here	Pick Here	Pick Here	Pick Here	Pick Here	Pick Here
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Size	>500	Pick Here	Pick Here	Pick Here	Pick Here	Pick Here	Pick Here	Pick Here
		0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Buffer / Upland	Pick Here	Pick Here	Pick Here	Pick Here	Pick Here	Pick Here	Pick Here	Pick Here
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Sum:	3.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0
	Area:	17.0	167.4		0.0	0.0	0.0	0.0	0.0
	Sum x Area Affected:	59.5	67.0	0.0	0.0	0.0	0.0	0.0	0.0

∑ Mitigation: 126.5

Mitigation Potential: 0.7

COMMENTS

Mitigation Type	
Management	
Negative Influences	
Size	Entire project under conservation servitude is 185.2 acres and will be connected to the existing 387.6-acre Belle Pointe Coastal Mitigation Bank for a total of 572.8 acres under conservation servitudes.
Buffer/Upland	