DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, NEW ORLEANS DISTRICT
7400 LEAKE AVENUE
NEW ORLEANS LA 70118-3651

December 19, 2022

Regulatory Division
Special Projects and Policy Team

Project Manager:
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Application #: MVN-2021-00667-SG

PUBLIC NOTICE

Interested parties are hereby notified that a permit application has been received by the New Orleans District of the U.S. Army Corps of Engineers pursuant to: [ ] Section 10 of the Rivers and Harbors Act of March 3, 1899 (30 Stat. 1151; 33 USC 403); and/or [**X**] Section 404 of the Clean Water Act (86 Stat. 816; 33 USC 1344).

CHURCH PLANTATION MITIGATION BANK IN ASSUMPTION PARISH

NAME OF APPLICANT: Cathedral Management, LLC c/o: SEG Environmental, LLC, ATTN: Paul Chadwick, 224 Rue De Jean, Lafayette, LA 70508

LOCATION OF WORK: Located approximately 1.0 mile southeast of Plattenville, LA, in Assumption Parish, (lat. 29.977814° long. -90.995376°), as shown within the attached drawings. (Hydrologic Unit Code 08090301, East Central Louisiana Coastal)

CHARACTER OF WORK: Cathedral Management, L.L.C. proposes to degrade and fill existing agricultural ditches, remove culverts, and plant appropriate tree seedlings to restore a sustainable bottomland hardwoods and cypress/tupelo swamp forested wetland. All work is being done to restore natural hydrology to the area for the purpose of constructing a mitigation bank.

The comment period on the requested Department of the Army Permit will close **30 days** from the date of this public notice. Written comments, including suggestions for modifications or objections to the proposed work, stating reasons thereof, are being solicited from anyone having interest in this permit request, and must be submitted so as to be received before or by the last day of the comment period. Letters and/or comments concerning the subject permit application must reference the Applicant's Name and the Permit Application Number and can be preferably emailed to the Corps of Engineer's project manager listed above or forwarded to the Corps of Engineers at the address above, **ATTENTION: REGULATORY DIVISION, RG, Trent Stockton.** This public notice is also available for review online at https://go.usa.gov/xennJ

Individuals or parties may also request an extension of time in which to comment on the proposed work by mail or preferably by emailing the specified project manager listed above. Any request for an extension of time to comment must be specific and substantively supportive of the requested extension and received by this office prior to the end of the initial comment period. The Division Chief will review the request and the requester will be promptly notified of the decision to grant or deny the request. If granted, the time extension will be continuous and inclusive of the initial comment period.

Corps of Engineers Permit Criteria

The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people.

The U.S. Army Corps of Engineers is soliciting comments from the public, federal, state, and local agencies and officials, Indian Tribes, and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the U.S. Army Corps of Engineers to determine whether to make, modify, condition, or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity. Further, all factors that may be relevant to the proposal will be considered, including the potential cumulative effects associated with the proposed project.

The New Orleans District is presently unaware of properties listed on the National Register of Historic Places at or near the proposed work but is pending further review in accordance with the National Historic Preservation Act. The possibility exists that the proposed work may damage or destroy presently unknown archeological, scientific, prehistorical, historical sites, or data. As deemed necessary, copies of this public notice will be sent to the State Archeologist, State Historic Preservation Officer, and federally listed tribes regarding potential impacts to cultural resources.

Our initial finding is that the proposed work would have no effect on any species listed as endangered by the U.S. Departments of Commerce, nor affect any habitat designated as critical to the survival and recovery of any such species.

Based on the Information Planning and Consultation (IPaC) tool for Endangered Species in Louisiana, as signed on January 27, 2020, between the U.S. Army Corps of Engineers, New Orleans and the U.S. Fish and Wildlife Service, it has been determined that the project would have no effect to any species listed as endangered by the U.S. Fish and Wildlife Service, nor affect any habitat designated as critical to the survival and recovery of any such species.

This notice initiates the Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. The applicant's proposal may result in the destruction, alteration, and/or disturbance of **0 acres** of EFH utilized by various life stages of red drum and penaeid shrimp. Our initial determination is that the proposed action would not have a substantial adverse impact on EFH or federally managed fisheries in the Gulf of Mexico. Our final determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the National Marine Fisheries Service.

If the proposed work involves deposits of dredged or fill material into navigable waters, the evaluation of the probable impacts will include the application of guidelines established by the Administrator of the Environmental Protection Agency. Also, a certification that the proposed activity will not violate applicable water quality standards will be required from the Louisiana Department of Environmental Quality before a Department of the Army permit could be issued.

Any person may request, (preferably by email to the project manager, or in writing), within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing.

The applicant has certified that the proposed activity described in the application complies with and will be conducted in a manner that is consistent with the Louisiana Coastal Resources Program. The Department of the Army permit will not be issued unless the applicant receives approval or a waiver of the Coastal Use Permit by the Department of Natural Resources.

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

for Martin S. Mayer
Chief, Regulatory Division

Enclosure

Prospectus for the Proposed Church Plantation Mitigation Bank

Assumption Parish, Louisiana

July 5, 2022

Sponsor: Cathedral Management, LLC.
Name Leo D. Sternfels and Marvin V. Marmande, Jr.
Address P.O. Box 234, Plattenville, LA 70393

Agent: SEG Environmental
Name Paul Chadwick
Address 224 Rue De Jean, Lafayette, LA 70508

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1. Introduction

This prospectus was prepared by SEG Environmental, LLC in accordance with 33 CFR § 332.8(d)(2) to establish and operate the Church Plantation Mitigation Bank (CPMB). The proposed bank encompasses approximately 255.3 acres and will provide compensatory mitigation credits for unavoidable permitted impacts to "Waters of the United States" per 33 CFR § 332.3 (1)(a) and 33 CFR § 332.3 (1)(b). The property is in the northeastern portion of Assumption Parish at the end of Church Road located approximately 0.8 miles east of Bayou Lafourche and Hwy 308 in the southern portion of the town of Plattenville, LA. The majority of the proposed Bank property is within the United State Geological Survey (USGS) 7.5-minute quadrangle "Meadowood, LA" while the western portion of the property falls within the "Napoleonville, LA" quadrangle.

1.1 Site Location

The proposed Bank is located in Plattenville, LA in Assumption Parish located in Sections 126 & 133, T12S, R14E, Section 57, T12S, R15E, Sections 50 & 84-86, T13S, R14E, and Sections 1-2, T13S, R15E. The approximate center coordinates for the Bank are 29.977814° latitude and -90.995376° longitude (NAD83 Datum).

To locate the site, from the intersection of Tiger Drive and LA Hwy 308 in Thibodaux drive west and north on LA Hwy 308 for approximately 19.8 miles to arrive at Church Road on the east side of the Hwy. Turn right on to Church Road and drive east for approximately 0.9 miles to arrive at the western boundary of the project site which spans the north and south side of Church Road (Figure 1).

2. Project Goals and Objectives

The project will restore or preserve 255.3 acres of BLH wetland forest. The project will consist of 121.7 acres of re-establishment, 48.5 acres of rehabilitation, and 85.1 acres BLH preservation (Table 1). Note that a cypress swamp planting may occur on a portion of this property, however it is difficult to determine whether the southeastern portion of the property will remain wet enough to sustain a cypress swamp once the headlands in the area are removed. Once the dirt work has been completed a determination will be made.

The successful restoration of a BLH wetland forest ecosystem will provide additional wetland functions and values not currently realized under the current land use practices, namely sugarcane and cattle farming. Hence, the project goals and objectives of the CPMB are to re-establish and protect the physical, chemical, and biological functions of a BLH wetland forest ecosystem within the coastal zone of the Barataria Basin. More specifically, these goals and objectives will be achieved as follows:

- removing culverts, filling drainages, and restoring historic surface grades to the property will restore the sites historic hydrologic functions;

- increase flood water storage capacity and retention time to this area by re-establishing the hydrologic link between the Bank and existing wetland forest to the east;

- improve water quality in a coastal watershed by reducing nonpoint source pollution through cessation of current land use practices that currently contribute to increased sediment and chemical runoff, and hence nutrient loading, i.e., extensive ditching channels fertilizers, pesticides, and cattle waste to nearby streams and bayous;

- re-establishing a native wetland forest (via reforestation) capable of capturing, retaining, and filtering flood waters will help attenuate local and downstream flooding and help reduce sedimentation and nutrient loads in the Barataria Basin system;

- implementation of management strategies designed to ensure the long term viability of the Bank such as establishment of short and long term financial assurances to help establish and maintain the Bank, short, intermediate, and long term monitoring to measure and ensure success criteria are met, and short, intermediate, and long-term invasive species control;

- and, re-establishing a native BLH wetland forest ecosystems will increase opportunities for outdoor recreational activities (i.e. camping, hiking, and hunting) and improve wildlife habitat.

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 project is located within the Lower Mississippi Alluvial Valley (LMAV), the historical reaches of the largest forested wetland ecosystem that once existed in the United States (Schoenholtz et al. 1999). While forested wetlands in the LMAV once encompassed nealy 24.7 million acres at the time of early European

settlers, only 5.2 million acres remained by 1978 (MacDonald et. al 1979). The increasing need for food and raw building materials, The Flood Control Act of 1928, advancements in mechanical land clearing machinery, and a spike in agricultural prices in the 1960s and 1970s all contributed to accelerated forest clearing and fragmentation in the 20th century. Tiner (1984) attributed 87% of wetland losses at the time to agricultural development.

Extensive drainage developed to support agriculture in former wetlands have drastically altered the sites natural hydrology and continues to contribute to diminished water quality in the Barataria Basin. However, Schriever clay soil which encompass the majority of the site (96%) make it ideal for a bottomland hardwood restoration project, one that will restore the historic forested wetland functions and values that once existed.

More specifically, the proposed restoration site was once part of a bottomland hardwood forest ecosystem positioned within the historical floodplains of Bayou Lafourche and the Atchafalaya and Mississippi Rivers. Historically, precipitation, high water tables, and periodic overbank flooding from Bayou Lafourche and the Atchafalaya and Mississippi Rivers were the source of hydrology for the site. However, an extensive levee system developed along the Mississippi River by the U. S. Army Corp of Engineers (ACOE) in the late 1800s, a levee constructed at Bayou Lafourche at the Mississippi River in 1904, and finally leveeing of the Atchafalaya River following the Flood Control Act of 1928 all but eliminated overbank flow from these waterways as sources of hydrology for the area. Hence the primary source of hydrology for the site today is precipitation, runoff from adjacent lands at higher elevations along the eastern bank of Bayou Lafourche, high water tables and saturation in the sites poorly drained clayey soils, and back flooding from adjacent forested wetlands to the east. Historically, the site drained through bottomland hardwood and cypress forest naturally via gravity from the higher natural levee areas along Bayou Lafourche to the lower elevation forested wetlands and Bayou Verret in the northeast.

Aerial imagery acquired May 11, 1952 indicates that the Church Plantation Bank property and much of the surrounding property was already cleared of trees by this date and converted to some form of agriculture. Aerial imagery since indicates that the property has been farmed ever since, either for sugarcane or cattle production (Attachment B).

It is difficult to establish exactly when the Church Plantation or surrounding properties were cleared of trees, and in fact, the same goes for many areas along Bayou Lafourche. Prior to European settlement, various Indian tribes lived along the alluvial ridges that formed the Bayou Lafourche distributary system, and along with hunting they relied heavily on agriculture as a means of subsistence. Techniques employed by many of these tribes to clear land for farming was slash and burn, and when productivity diminished fields were left fallow to return to forest and other areas were cleared (Lafourche Parish

Government 1983). Additionally, much of the Bayou Lafourche area was being farmed by Acadians from Nova Scotia shortly after they arrived in 1764 (South Lafourche Levee District 2016) and they too relied on farming for sources of food. However, the Acadians along Bayou Lafourche were not typically large land owners and the farming of corn, rice, cotton, and okra was generally for family use.

But after the initial Settlement of Acadians in the Bayou Lafourche area, Anglo-Americans began arriving to the area when Spain offered free land to encourage settlement. The likely impetuous for the increase in Anglo-American settlers in 1774 was also spurred by the development of the sugar crystallization process by Jean Etienne de Bore who owned a large plantation upriver from New Orleans. This process revolutionized the sugar industry and with the land and climate along Bayou Lafourche being ideal for growing sugarcane, the area was flooded by farmers looking to grow cash crops. Additionally, in the early 19th century, wealthy farmers from Natchez and other areas began buying large tracts along Bayou Lafourche and developed plantations, which they were able to farm effectively with use of slaves (Lafourche Parish Government 1983). This is likely the time period where the clearing of woodlands along Bayou Lafourche began to increase and likely gained traction in the mid-late 1800s with the development of steam and gas powered tractors and mechanized clearing equipment such as hydraulic excavators and bull dozers.

3.1.2 Existing/Current Land Use

Current aerial imagery was used to determine the Land Use for the proposed Church Plantation Mitigation Bank site and within one mile of the site boundaries. The proposed Bank site consist of 65.1 acres of agriculture (sugarcane), 105.1 acres of cattle pasture, and 85.1 acres of bottomland hardwood wetland forest.

There are a few cutout areas that separate or interrupt the boundaries, a 3.2 acre pipeline ROW with a 10 foot buffer on either side that bisects the pasture area, a 0.6 acre tree line in the pasture area, and 2.0 acres consisting of Church Road which bisects the agricultural fields in the northwestern portion of the project area.

Land Use within one mile of the Church Plantation site boundaries consist of 1,586.9 acres of agriculture, 61.8 acres of aquaculture/crawfish farms, 11.2 acres of water (Bayou Lafourche), 1,221.9 acres of bottomland hardwood forest, 1003.8 acres of cypress swamp, 45.9 acres of pasture, 8.7 acres of residential property, and 75.1 acres of residential/commercial property (Figure 2).

3.2 Soils

Natural Resource Conservation Service (NRCS) soil data for Assumption Parish, Louisiana (Version 13, June 4, 2020) was accessed and downloaded on June 25, 2021 from web soil survey (SSS 2020). These data indicate the proposed Church Plantation Mitigation Bank site consist of 160.4 acres of Schriever clay, 0 to 1 percent slopes (SkA), a soil unit with a 98% hydric rating, 85.8 acres of Schriever clay, 0 to 1 percent slopes, frequently flooded (SM), a soil unit with a 100% hydric rating, and 9.1 acres of Thibaut clay, 0-1 percent slopes (TbA), a soil unit with a hydric rating of 10% (Figure 3). According to USGS 2017 1m DEM for the Upper Delta Plain, LA the mean elevation on the proposed site is 3.2 feet (NAVD88 - Geoid12B) and elevation ranges from a high of 9.4 feet (NAVD88) in the area of sugarcane production to a low of 0.6 feet (NAVD88) in the woods proposed for preservation (Figure 4). Wetland determination field work for the site showed all of the soils on the proposed site as having hydric characteristics.

3.3 Hydrology

3.3.1 Contributing Watershed

The proposed Church Plantation Mitigation Bank is located in the East Central Louisiana Coastal Watershed HUC8 08090301, a hydrologic unit encompassing approximately 1,733,766 acres. The drainage begins in Donalsonville, LA at the Mississippi River and has the west bank levee of the Mississippi River as it's eastern boundary and Bayou Lafourche as it's western boundary (Figure 5).

3.3.2 Historical Hydrology and Drainage Patterns

Historically, precipitation, high water tables, and periodic overbank flooding from Bayou Lafourche and the Atchafalaya and Mississippi Rivers were the source of hydrology for the site. However, an extensive levee system developed along the Mississippi River by the U. S. Army Corp of Engineers (ACOE) in the late 1800s, a levee constructed at Bayou Lafourche at the Mississippi River in 1904, and finally leveeing of the Atchafalaya River following the Flood Control Act of 1928 all but eliminated overbank flow from these waterways as a source of hydrology for the area. Historically, the mitigation bank site drained through bottomland hardwood and cypress forest naturally via gravity from the higher natural levee areas along Bayou Lafourche to the lower elevation forested wetlands and Bayou Verret in the northeast (Figure 6).

The Baker Canal North was developed along LA Hwy 308 in the Barataria Basin Basin to improve drainage in the area along Bayou Lafourche and is still in use today. The development of the Canal first appears in the 1927 USGS Madewood 1:24,000 Topographic Quadrangle Map in the area of Napoleonville and in aerial image from May of 1952 (Attachment B). The 1927 period is the likely time period when improved drainage was sought with the increase in

acreage of sugarcane farming and in the number of people migrating to that area along Bayou Lafourche. This is also the time period when mechanized heavy equipment was being used for large infrastructure projects. While this drainage system has greatly altered the hydrology of the area, restoring the historic land grade and filling of the numerous ditches on the property that channel water to the main drainage ditch along Church Road leading to the Baker Canal will be enough to restore hydrology to the site.

3.3.3 Existing/Current Hydrology and Drainage Patterns

The current hydrology to the site is via direct precipitation, high water tables, and drainage from higher elevation tracts to the west on the eastern natural levees of Bayou Lafourche. Occasionally, back flooding from Baker Canal North enters the site via the main drainage along Church Road and the numerous ditches developed to keep the site drier.

NOAA's National Centers for Environmental Information (NCEI) 1981-2010 precipitation normal for the nearby Donalsonville, LA station (GHCND: USC00162536) is 62.46 inches per year. The station reports that June is normally the wettest month of the year with approximately 7.15 inches of rainfall and November as being the driest months of the year with 4.20 inches of precipitation (NCEI 2021). NRCS (2013) estimates precipitation in the lower Mississippi River plain to be approximately 65 inches annually.

Hydrology modifications on the site itself includes furrows and rows, surface drains, culverts and main drainages developed to support sugarcane and cattle production. Surface modifications developed to support sugarcane and cattle production contribute to excessive runoff, and hence diminished water retention time, diminished water quality, and increased downstream sedimentation and nutrient loading.

Topology changes on the property include laser leveling techniques in sugarcane fields and turtle-backed fields in pastures to reduce surface water retention time.

Surface flow at the site enters larger drainages that flow into the main drainage along Church Road that flows eastward to Baker Canal North, northward to the Seatra Canal, eastward to Bayou Verret, southward to Bayou Citamon, eastward to Bayou Chevreuil, and eastward into Lake Des Allemands. Lake Des Allemands flow continues eastward into Bayou Des Allemands, eastward and southward into Lake Salvador, eastward and southward into Little Lake, eastward and southward into Barataria Bay, then southward into the Gulf of Mexico. Current drainage patterns for the site are depicted in Figure 7.

3.3.4 Jurisdictional Wetlands

Wetlands on the project site consisted of 48.6 acres of Emergent Wetlands, 85.1 acres of forested wetlands, 3.1 acres of Jurisdictional non-wetland waters, and 121.7 acres of non-wetlands (Attachment C).

Vegetation

3.3.5 Existing Plant Community

Currently there are 5 habitat types with different plant communities on the Church project site (Figure 8), 1) active non-wet agricultural fields planted in sugarcane or in rotation, including non-jurisdictional field drains, 2) high non-wetland pasture being utilized for cattle and hay production, 3) lower elevation wetland pasture and field drains being used for cattle production, 4) jurisdictional drainage ditches with emergent wetlands, and 5) existing bottomland hardwood wetland forest.

Species located in the active sugarcane fields include perennial rye grass (Lolium perenne – FAC) at 36% coverage, bermuda grass (Cynodon dactylon – FACU) and clasping-leaf Venus'-looking-glass (Triodanis perfoliata – FACU) at 12% coverage, purple flat sedge (Cyperus rotundus – FAC) at 8% coverage, and toothed medick (Medicago polymorpha – FACU), spotted crane's-bill (Geranium maculatum – FACU) and marsh-parsley (Cyclospermum leptophyllum – FAC) at 4% coverage. All of these species were dominant at one or more of the 7 sugarcane field sites sampled for the wetland delineation. And as expected, sugarcane (Saccharum officinarum – FACU) was the overall dominant species present in the active agricultural fields.

Dominant herbaceous species located in the fallow sugarcane fields include toothed medick (FACU) at 30% coverage, perennial rye grass (FACU) at 14% coverage, neckweed (Veronica peregrina – FAC) at 11% coverage, Timothy canary grass (Phalaris angusta – FACW) at 9% coverage, spotted crane's-bill (FACU) at 9% coverage, and narrow-leaf blue-eyed-grass (Sisyrinchium angustifolium – FACW) at 4% coverage. Other non-dominant species present in the 6 sampling sites in fallow sugarcane fields included hairy buttercup (Ranunculus sardous – FAC), marsh-parsley (FAC), Venus'-looking-glass (FACU), white clover (Trifolium repens – FACU), and Louisiana vetch (Vicia ludoviciana – FACU) at 3% coverage, upright yellow wood-sorrel (Oxalis stricta – UPL) and vervain (Verbena brasiliensis – FACU) at 2% coverage, Bermuda grass (FACU), spiny-leaf sow-thistle (Sonchus asper – FACU), cress-leaf groundsel (Packera glabella – OBL), weedy dwarf-dandelion (Krigia caespitosa – FAC), and mouse's-ear (Stachys crenta - FACU) at 1% coverage, and meadow garlic (Allium canadense – FACU) and curley dock (Rumex crispus – FAC) at 0.3% coverage.

Dominant herbaceous species located in the non-wet cattle pastures include reversed clover (Trifolium resupinatum – FACU) at 27% coverage, bahai grass (Paspalum notatum – FACU) at 25% coverage, hairy buttercup (FAC) at 20%

coverage, white clover (FACU) at 17% coverage, Bermuda grass (FACU) at 4% coverage, and St. Augustine grass (Stenotaphrum secundatum – FAC) at 3% coverage. All of these species were dominant at one or more of the 8 upland pasture sites sampled for the wetland delineation.

Percent coverage for dominant herbaceous species located in the cattle pasture determined to be wetlands include common fox sedge (Carex vulpinoidea – FACW) at 28%, reversed clover (FACU) at 24%, white clover (FACU) at 12%, lamp rush (Juncus effusus – OBL) at 11%, hairy buttercup (FAC) at 8%, alligator-weed (Alternanthera philoxeroides – OBL) at 4%, Long's sedge (Carex longii – OBL), shoreline sedge (Carex hyalinolepis – OBL), and Frank's sedge (Carex frankii – OBL) all at 3%, and spotted crane's-bill (FACU) and lesser poverty rush (Juncus tenuis – FAC) at 2% coverage. All of these species were dominant at one or more of the 7 wet pasture sites sampled for the wetland delineation.

Percent coverage for dominant herbaceous species located in drainages determined to be jurisdictional include alligator-weed at 54%, lamp rush (OBL) at 25%, Virginia dayflower (Commelina virginica – FACW), green flat sedge (Cyperus virens – FACW), and savannah-panic grass (Phanopyrum gymnocarpon – OBL) at 7%, and blunt spike-rush (Eleocharis obtusa – OBL) at 4% coverage. All of these species were dominant at one or more of the 6 drainages sampled for the wetland delineation.

Percent coverage for species in the existing wet bottomland hardwood forest on the Church project site are listed by stratum below (n=2 samples):

Tree – dominant trees include sugar-berry (Celtis laevigata FACW) at 34%, black willow (Salix nigra – OBL) at 17%, American elm (Ulmus americana – FAC) and green ash (Fraxinus pennsylvanica - FACW) at 14%. Other non-dominant trees species present include honey-locust (Gleditsia triacanthos FAC) at 10%, water hickory (Carya aquatic – OBL) at 7%, and red maple (Acer rubrum – FAC) at 3% coverage. Overall percent overstory coverage averaged 72.5% between the 2 BLH sampling sites and maximum DBH in the stratum is approximately 28-32 inches.

Sapling/Shrub - dominant sapling/shrub species include dwarf palmetto (Sabal minor – FACW) at 32%, ash-leaf maple (Acer negundo – FAC) at 13%, red maple (FAC) at 10%, sugar-berry (FACW) at 8%, and green ash (FACW) at 6%. Other non-dominant species include American elm and rough-leaf dogwood (Cornus drummondii - FAC) at 13% coverage, and deciduous holly (Ilex decidua – FACW) and water oak (Quercus nigra – FAC) at 3% coverage. Overall percent midstory coverage averaged 78.5% between the 2 BLH sampling sites.

Herbaceous - dominant herbaceous species coverage in the bottomland hardwood wetlands include Long's Sedge (OBL) and bluejacket (Tradescantia

ohiensis – FAC) at 16%, jumpseed (Persicaria virginiana – FAC), yaupon (Ilex vomitoria – FAC), and eastern poison ivy (Toxicodendron radicans – FAC) at 8%, and Frank's sedge (OBL) and Virginia dayflower (FACW) at 8% coverage. Non-dominant herbaceous species include horsebrier (Smilax rotundifolia – FAC), southern dewberry (FACU), small-spike false nettle (Boehmeria cylindrical – FACW), and water oak (FAC) at 3% coverage, and bull thistle (Cirsium vulgare – FACU) and American elm (FAC) at 2% coverage. Overall percent understory coverage averaged 31.0% between the 2 BLH sampling sites.

Woody Vines - dominant woody vines in the bottomland hardwood wetlands include eastern poison ivy (FAC) at 43% coverage, muscadine (Vitis rotundufolia – FAC) at 29% coverage, and American buckwheatvine (Brunichi ovata – FACW) and trumpet-creeper (Campsis radicans – FAC) at 14% coverage. Overall percent woody vine coverage averaged 35.5% between the 2 BLH sampling sites.

3.4 General Need for the Project in this Area

The East Central Louisiana Coastal Watershed (HUC8 08090301) encompasses more than 1.7 million acres in South Louisiana and has both a high degree of development activity (i.e. commercial, residential, industrial, and pipeline and utility projects) along with a vast array of waterway and wetland systems (rivers, bayous, bottomland hardwood forest, cypress swamps and marshes). Hence the need for the availability of future mitigation credits in this Watershed and Watershed Basin is certainly justifiable.

The CPMB is also located within the Barataria Basin, a basin identified by the Barataria-Terrebonne National Estuary Program (BTNEP) as one requiring preservation and restoration. The CPMB helps accomplish many of the goals and objectives of BTNEP's Comprehensive Conservation Management Plan (CCMP) including Action Plans EM-1, Hydrologic Restoration, EM-11, Reduction of Agriculture Pollution, EM-15, Protection of Habitat for Migratory and Resident Birds, and EM-16, Reduction of Impacts from Exotic Vegetation (Moore and Rivers 1996).

Development and preservation of the CPMB also meets the goals and objectives of the Lafourche Parish Government Coastal Zone Management to 1) recognize the value in natural coastal ecosystems, 2) protect, restore and enhance the coastal zone as a natural storm barrier, flood control system, and water infiltration system, 3) protect, restore and enhance the coastal zone as a habitat for wildlife, an aquatic resource, an aesthetic resource, a parish, state and national resource, and a historic cultural resource, and 4) protect, restore and enhance the coastal zone as a legacy to future generations (Lafourche Parish Government 2013).

The development, management, and preservation of the CPMB also supports the findings and recommendations of the Coastal Wetland Forest Science Working Group (2005) by 1) conserving, restoring, and managing coastal wetland forests, including collaborative efforts among public and private entities, to ensure that their functions and ecosystem services will be available to present and future citizens of Louisiana and the United States, and 2) insures mitigation credits of similar resource type are available for impacts to coastal wetland forests within the watershed.

While the development, management, and preservation of wetland forest is not a specific goal of Louisiana's Comprehensive Master Plan for a Sustainable Coast, the CPMB will help increase flood storage capacity in this portion of Assumption Parish and therefore helps reduce to some extent the threat of flooding to commercial and residential properties (CPRA Master Plan 2017) in the vicinity of the bank.

Additionally, wetland forest of Louisiana provide important habitat for both fish and wildlife. Many nesting birds of prey will nest in or hunt near wetland forest, including Bald Eagle, Osprey, Black and Turkey Vultures, Swallow-tailed Kite, a species of conservation concern, Mississippi Kite, American Kestrel, and Cooper's, Red-shouldered, and Red-tailed Hawks (Dittmann et al. 2010). These forest also serve as nesting habitat for numerous resident land and wading bird species as well. Additionally, wetland forest of Louisiana also provide habitat for millions of Nearctic-Neotropical migrant birds during spring and fall migrations. More specifically, wetland forest of the Barataria-Terrebone Basin have been shown to support various migrant species such as Yellow Crowned Night-Herons, Eastern Phoebes, Acadian Flycatchers, Northern Parulas, and Hooded, Yellow-rumped, Prothonotary, and Yellow-throated Warblers. Wetland forest in the area also support resident bird species such as Great Blue Herons, Wood Ducks, Red-shouldered Hawks, Great Horned and Barred Owls, Pileated Woodpeckers, Yellow-bellied Sapsuckers, Northern Cardinals, Blue Jays and Carolina Chickadees, as well as migrant songbirds such as Yellow-billed Cuckoos, Summer Tanagers, Red-eyed Vireos, and Great Crested Flycatchers (Demay et al. 2007). Numerous species of waterfowl frequent flooded wetland forest as well, including Mallard, Gadwall, Blue and Green-winged Teal, American Wigeon, Hooded Merganser, and Wood duck.

During 18 breeding bird censuses, Twedt et al (1999) found that species richness, diversity, and territory density were greater in bottomland hardwood stands than managed cottonwood stands and that mature bottomland hardwood forests are twice as valuable for bird conservation as cottonwood plantations. The development, management and conservation of the CPMB is also in accord with Partners in Flight plan for bird conservation in the Mississippi Alluvial Valley to reestablish bottomland hardwood forest so as to increase the area of forests (Twedt et. 2006). Wetland forest of the Barataria-Basin also serve as critical wintering habitat for Central Region populations of American Woodcock. Kelly and Rau (2006) noted an 8% decline of displaying adults from 2005 to 2006 and

U.S. Fish and Wildlife Service (1990) attributed declining woodcock populations to a decrease in quantity and quality.

Dramatic forested wetland loss in the Lower Mississippi Alluvial Valley has also reduced critical habitat for numerous bat species, including Southeastern Myotis, Little Brown Myotis, Gray Myotis, Yellow Bat, Rafinesque's Big-Eared Bat, Hoary Bat, Northern Myotis, Indiana or Social Myotis, and Silver-Haired Bat (MMNS 2015) and increasing mature wetland forest in the southeast is key to conserving and managing declining bat populations in eastern forest of the United States (Loeb 2013). Holcomb et al. (2015) attributes clearing for agricultural as the primary factor for the reduction in bottomland hardwood forest in Louisiana and list 61 species of greatest conservation concern (SGCN) associated with this diverse habitat type. The list includes 1 species of mollusks, 1 crustacean, 6 non-crustacean arthropods, 5 amphibians, 4 species of reptiles, 20 bird species, 10 mammals, and 14 plant species, and within the mammals listed are 5 species of bats. Additionally, given that Boyels et al. (2011) attribute the value of insect control by bats to US agriculture to be as high as $23 billion annually, increasing habitat for insectivorous bat species in the Barataria Basin could potentially reduce the use of pesticides in the future.

4. Establishment of a Mitigation Bank

This section described how the mitigation bank will be established, as stated in 33 CFR 332.8(d)(2) (ii); the technical feasibility of the proposed mitigation bank, as stated in 33 CFR 332.8(d)(2) (iv); and the assurance of sufficient water rights to support the long-term sustainability of the mitigation bank, as stated in 33 CFR 332.8(d)(2)(vii)(A).

Site restoration for the CPMB will consist of hydrology restoration and reforestation, via replanting, of native bottomland hardwood forest species. The Bank will re-establish 121.7 acres and rehabilitate 48.5 acres of bottomland hardwoods. Additionally, 85.1 acres of exiting bottomland hardwoods will be preserved. Restoration of surface hydrology, cessation of agriculture and cattle production, development of planted trees over time and recruitment of natural herbaceous communities in the understory will continue to decrease runoff rates and increase water and nutrient retention time, thereby further improving aquatic functions and values on the CPMB over time.

4.1 Site Restoration Plan

This section provides information on the proposed soils/hydrologic and vegetative work that was determined to be necessary for restoration and/or enhancement of the proposed site.

4.1.1 Soils/Hydrologic Work

Surface hydrology will be restored utilizing heavy mechanized equipment such as excavators, bull dozers, farm tractors, heavy duty disc ploughs, and GPS and laser guided - tractor mounted scrapers. All impediments to surface flow such as sugarcane rows, turtle backed features in pastures, headlands, culverts, field drains and drainage ditches will be removed, degraded, or filled such that the historical west to east grade is restored with a 0-1% slope to the greatest extent practical (Figure 6). To reduce the effects of soil compaction from past agricultural practices, all areas of the Bank will be disked a minimum of two times to a depth of 8-14 inches and then 9 foot center planting rows will be ripped to a depth of 18-24 inches (Allen et al. 2004).

Site preparation will include the removal of small trees and brush currently growing in the pastures utilizing mechanized equipment, chainsaws, herbicides, or combination thereof. A new drainage system will be constructed along the western perimeter of the Bank north and south of Church Rd. to support ongoing agricultural activities west of the Bank (outside Bank footprint). This ditch will replace those inside the Bank boundaries and will be constructed prior to the commencement of any hydrologic work for the Bank. Plan View Hydrologic Restoration Drawings are included in Attachment D Figures 9-1 through Figure 9-11.

Schedule of Work Activity

1 – Early in the year the new agricultural drainage ditch along the western boundary of the Bank will be constructed so that ditches in the interior of the Bank can be decommissioned and filled. There will be a 10-foot buffer between the ditch and the CPMB boundary along the western edge of the Bank (Figure 9-1). In the area of the Bank north of the Church Rd. the material will be used to construct a new headland on the west side of the ditch and in the area of the Bank south of Church Rd. the material removed from the ditch will be used to build up the existing headland to the west of the ditch. Both ditches will be approximately 16 feet wide and 3-4 feet deep and each will connect to the main drainage on the south side of Church Rd. which drains eastward to Baker Canal North. The ditch on the north side of the Rd. will be about 856.0 feet long and the ditch on the south side of Church Rd. will be about 2,082.0 feet long. Both will be approximately 16.4 feet wide and 14,865 yd^3 of material will be excavated to construct both (Figures 9-1 thru 9-3 Cross Sec. A). The footprint of both ditches encompasses approximately 1.1 acres. Three (3) large culverts will be placed in the ditches to create cross overs to facilitate access to the west side of the Bank for monitoring. One (1) cross over will be placed at the midpoint of the ditch north of Church Rd. and 2 in the south ditch, 1 at approximately 704.0 feet from the existing ditch south of Church Rd. and the other about 1,408.0 feet from the ditch at Church Rd (Figure 9-1 and Figure 9-2).

Flow capacity of the main drainage along the south side of Church Rd. (Figures 9-1 thru 9-4 Cross Sec. B) will have to be increased to the approximate

capacity of the main drainage being constructed on the west side of the Bank (Figure 9-3 Cross Sec. A). The Church Rd. drainage is currently approximately 921.0 feet long, 15.1 feet wide, covers approximately 0.3 ac., and has a capacity of 1,446.0 yd^3, and approximately 3,213.9 yd^3 of material will be removed to increase total capacity to 4,659.9 yd^3.
2 – Hydrologic restoration for the Bank will begin in the western most portion of the Bank in the sugarcane fields north and south of Church Rd. and proceed eastward. Excavators will be used to remove 14 culverts from the sugarcane fields and cane rows and headlands will then be leveled and 10 non-jurisdictional field drains filled utilizing large tractors equipped with heavy duty disc ploughs and bull dozers. Collectively, the field drains encompass 0.6 acres and 7,870 yd^3 of *in situ* material will be used to fill the field drains (Figure 9-1 and Figure 9-5 Cross Sec. C).

The north-south drainage ditch north of Church Rd. along the woods flowing south to the main drain at Church Rd. will be filled with *in situ* material utilizing bulldozers and excavators. The ditch is approximately 1,073.9 feet long 3,214 yd^3 on material will be used to partially fill the ditch and adjacent swale. Collectively the swale and ditch are about 32.1 feet wide and cover a footprint of about 0.8 acres (Figure 9-6 - Cross Sec. D). If there is not enough material to fill the ditch completely it will be blocked off on either side and cypress swamp species will be planted in the swale and BLH on the higher areas.

The north-south ditch south of Church Road between the south cane fields and pasture, along with 4 other ditches in the pasture with a similar profile, will also be filled with *in situ* material utilizing bulldozers and excavators. These collectively are approximately 6,531 feet in length, 16.0 feet wide, and cover a footprint of about 2.4 acres. Approximately 33,044 yd^3 of material will be used to fill these ditches (Figure 9-1 and Figure 9-7 Cross Sec. E).

The cane field surfaces will be returned to a 0-1 % slope to the greatest extent practical. Once the hydrologic work in the north and south cane fields have been completed, the area will then be disked to a depth of 8-14 inches utilizing large tractors equipped with heavy duty disc harrow ploughs.

3 – Fifty-four (54) culverts in the eastern and western pasture will be removed with an excavator along with any small trees or brush. GPS and laser guided - tractor mounted scrapers, or bull dozers, will then be used to remove material from high spots on the turtled backed field segments in both pastures and material will be deposited into adjacent lower areas and field drains north and south of each field segment (Figure 9-8 - Cross Sec. F). The field drains in the pastures encompass approximately 3.5 ac. and contain jurisdictional emergent wetlands. Collectively the drains measure 15,244 feet long, are between 18-30 ft. wide, and approximately 33,051 yd^3 of material will moved to fill the ditches and level the pastures. Material from the north-south headland in the eastern pasture will be used to fill ditches on both sides of the headland. The ditches are

about 1,191 feet long, roughly 8-10 feet wide, cover approximately 0.2 acres, and approximately 1,188 yd^3 of material will be moved to fill these ditches (Figure 9-1 and Figure 9-9 Cross Sec. G).

4 – The large drainage ditch between the eastern pasture and the preservation woods to the east is approximately 1,438 feet long, 20-21 feet wide, and encompasses about 0.7 acres. About 14,311yd^3 of material from the headland in the pasture and from the headland and levee across the canal will be used to fill the ditch (Figure 9-1 and Figure 9-10 Cross Sec. H).

The pasture surface area will be returned to a 0-1 % slope to the greatest extent practical. Once the hydrologic work in the pastures has been completed, the area will then be disked to a depth of 8-14 inches utilizing large tractors equipped with heavy duty disc harrow ploughs.

5 – After the above hydrologic work has been completed and disked soils have settled for 1-2 months, the planting rows will be developed on 9 foot centers in areas to be planted by subsoiling with chisel plough to a depth of 18 inches (Figure 9-11). This work will be completed 2 months prior to planting to give the soil time to settle and eliminate air pockets within the rips (Allen et al. 2004). The area will then be treated with a pre-emergent herbicide to reduce plant competition with planted seedlings.

4.1.2 Vegetative Work

Following the soils/hydrologic preparation the site will be planted with 1 year old native bare root seedlings from an approved certified nursery by a licensed forester. Plantings will be conducted between December 15th and March 15th following completion of the hydrologic work plan. Seedlings will be planted 9 feet apart on the 9 foot centered ripped planting rows for a planting rate of 538 stems per acre. A species list and percentage for each is listed in Table 2 (Attachment A), including the percentage of hard versus soft mast species (60% hard mast/ 40% soft mast). The species list was adopted from those listed as native to bottomland hardwoods by the Louisiana Natural Heritage Program (LNHP 2009), Lester et al. (2005), and by those species growing in the bottomland hardwood forest designated as preservation for the CPMB.

All of the listed species are available commercially. The goal is to match plant species to the closest extent possible to those species growing on adjacent wetland forest to the east. Commercially available species were chosen to tolerate the same hydrological conditions as those in adjacent forest and elevations on the proposed site. Natural regeneration and recruitment of native species is anticipated to occur at this site and will be documented and reported

via the required annual monitoring reports on the appropriate schedule set forth by the IRT. The Sponsor intends to use all prudent efforts, physical, chemical, or mechanical, to eliminate existing undesirable/exotic vegetation present on the site. Ground cover herbicide treatments and invasive control treatments will be implemented initially and as needed during the establishment of the Bank.

Bottomland hardwood re-establishment and rehabilitation plantings will generate between 74.8 and 159.6 acres of coastal credits according to 3mNED lidar data and 2017 USGS Upper Delta Plain, LA 1m Lidar DEM, respectively. A habitat restoration plan and LDNR and New Orléans District credits derived from these 2 data sets are included in Figure 10-1 and Figure 10-2. A post-construction topographic elevation survey will be performed to determine the final number of bottomland hardwood coastal credits for the CPMB.

The major anticipated invasive species of concern for the CPMB is Chinese Tallow (Triadica sebifera) especially during the first seven years of the Bank during early succession (until relative canopy cover and shading inhibit growth of tallow). All invasive species will be cataloged annually and reported during the appropriate reporting year and measures will be taken to keep any particular invasive species to less than five percent of the restored forested system as a whole. Products such as Clearcast and Garlon may be utilized to keep Chinese Tallow within allowable tolerances. Costs for long term monitoring and invasive species control are figured into the Long Term Management Plan and financial assurances. Invasive species control is not expected to present any particular problems at the Bank.

4.2 Technical Feasibility

The construction work required to establish the Bank is certainly feasible and well within the sponsors capabilities to support. The property as it exist today is a modern farm utilizing modernized mechanized equipment to efficiently prepare the land for sugarcane and cattle production. For the most part, this same equipment will be sufficient to develop the Bank as discussed above. Equipment required will be a GPS and laser guided - tractor mounted scraper, heavy disks for cultivating the soil, and a large bulldozer and excavator to fill surface drains and drainage ditches. Additionally, the owners of the company proposing to establish and operate the proposed CPMB already own and operate Lucky Hit Woodlands, Ratliff Woodlands, and Enterprise Woodlands Mitigation Banks and are aware of the effort and cost required to develop the proposed Bank. Additionally, the owners of the Bank property also own the adjacent agricultural property to the west so they have a vested interest in the success of the Bank.

4.3 Current Site Risks

There are no known potential threats to the Bank site or resource type the Bank intends to provide and/or protect. The Texas Eastern Gas Pipeline right-of-

way (TEGP ROW) is located in the pasture area of the proposed site but will be at grade post-construction so it is not expected to present any surface hydrology problems for the Bank (Figure 9-1). Agricultural land to the north, south, and west is zoned Agricultural, while the wooded area adjacent to the bank to the east is zoned Timberland. The owners of the agriculture property to the west are the owners of the property for the proposed Bank so they have a vested interest in the Banks' success.

4.4 Long-Term Sustainability of the Site

Adaptive management techniques will be employed to control invasive species and nuisance animals and required monitoring and reporting will be conducted to insure long-term viability of the site. There will be no water control structures so long-term structural management will not be necessary. The vast majority of the site is comprised of Schriever clay, 0-1% slopes, a soil series consisting of very deep, poorly drained, very slowly permeable soils where the mean annual rainfall is about 65 inches per year (NRCS 2013). Hydrology will also be provided from a high water table, runoff from surrounding areas, and occasional back flooding from adjacent forest and creeks. Therefore, eliminating field drains, culverts, and drainage ditches along with surface grade restoration should be sufficient to ensure long term hydrologic sustainability.

Adjacent properties are not dependent on the conveyance of surface waters from the Bank property, so water rights are not an issue. Also, none of the main drainages in this area are tidally influenced, so salt-water intrusion is a non-issue for the foreseeable future.

5. Proposed Service Area

Commensurate with the Louisiana Wetland Rapid Assessment Method (LRAM), the Primary Service Area for the CPMB will be the Barataria Watershed Basin which includes the East – Central Louisiana Coastal (08090301) hydrologic unit (Figure 5) and generate. Use of bank credits beyond the Primary Service Area will be determined on case-by-case basis by the CEMVN.

6. Operation of the Mitigation Bank

This section describes how the proposed Bank will be operated, as stated in 33 CFR 332.8(d)(2) (ii) and provides details on the proposed ownership arrangements and long-term management strategy for the mitigation bank, as stated in 33 CFR 332.8(d)(2) (v.)

6.1 Project Representatives

Sponsor:	*Cathedral Management LLC.* *Leo D. Sternfels and Marvin V Marmande, Jr.* *P.O. Box 234*

Plattenville, LA 70393
Leostern59@gmail.com
1-985-513-0379

Agent: *SEG Environmental, LLC*
224 Rue De Jean
Lafayette, LA 70508
paul.chadwick@segenviro.com
337-257-8906 (c)
337-347-6777 (o)

Landowner: *Church Mitigation Bank, LLC*
514 Edgewood Dr.
Thibodaux, LA 70301
985-513-0688

6.2 Qualifications of the Sponsor

Cathedral Management, LLC will be responsible for administrative duties and management of the Bank land. The sponsors of CPMB also successfully own and operate Lucky Hit Wetlands, Enterprise Woodlands, and Ratliff Woodlands Mitigation Banks in the same HUC. The sponsors have hired SEG Environmental, LLC (SEG) of Lafayette, LA as their Environmental Agent, a company with over 20 years of combined experience in the environmental and mitigation banking industry. SEG Environmental LLC., mitigation bank establishment and management experience includes but is not limited to: wetlands determinations, Section 404 permitting, prospectus development, MBI development, site preparation, site planting, monitoring, reporting and management related duties.

6.3 Proposed Long-Term Ownership and Management Representatives

Cathedral Management, LLC will ultimately be responsibility for the Long-Term Ownership and Management of the CPMB. The sponsors, Mr. Leo Sternfels and Mr. Marvin Marmande, are very familiar with the mitigation banking industry and currently own, operate and oversee the management of 3 other Banks located in the same watershed.

6.4 Site Protection

The sponsors and land owners shall be responsible for protecting all lands within the entire Bank. The site will be protected by a perpetual Louisiana conservation servitude in accordance with the Louisiana Conservation Servitude Act (La. R.S. 9:1271, *et seq*.) on the entire 255.3 acre tract. The conservation

servitude shall be recorded in the Mortgage and Conveyance Records of Assumption Parish.

6.5 Long-Term Strategy

The Sponsor will ensure the long-term success and sustainability of the CPMB by restoring the surface hydrology (passive) of the entire Bank area, thence by such mechanisms as vegetative plantings, maintenance, invasive species control, site monitoring, establishment of financial assurances and perpetual protection through the establishment of a Louisiana conservation servitude. A long-term management plan will be included in the Mitigation Banking Instrument that will address long-term management requirements, costs and the identification of a funding mechanism in accordance with 33 CFR §332.7(d).

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ATTACHMENT A
TABLES AND FIGURES

Table 1: Mitigation Acres Breakdown

Mitigation Type	Habitat Type	Acres
Re-Establishment	Bottomland Hardwoods	121.7
Rehabilitation	Bottomland Hardwoods	48.5
Preservation	Bottomland Hardwoods	85.1
	Total	**255.3**

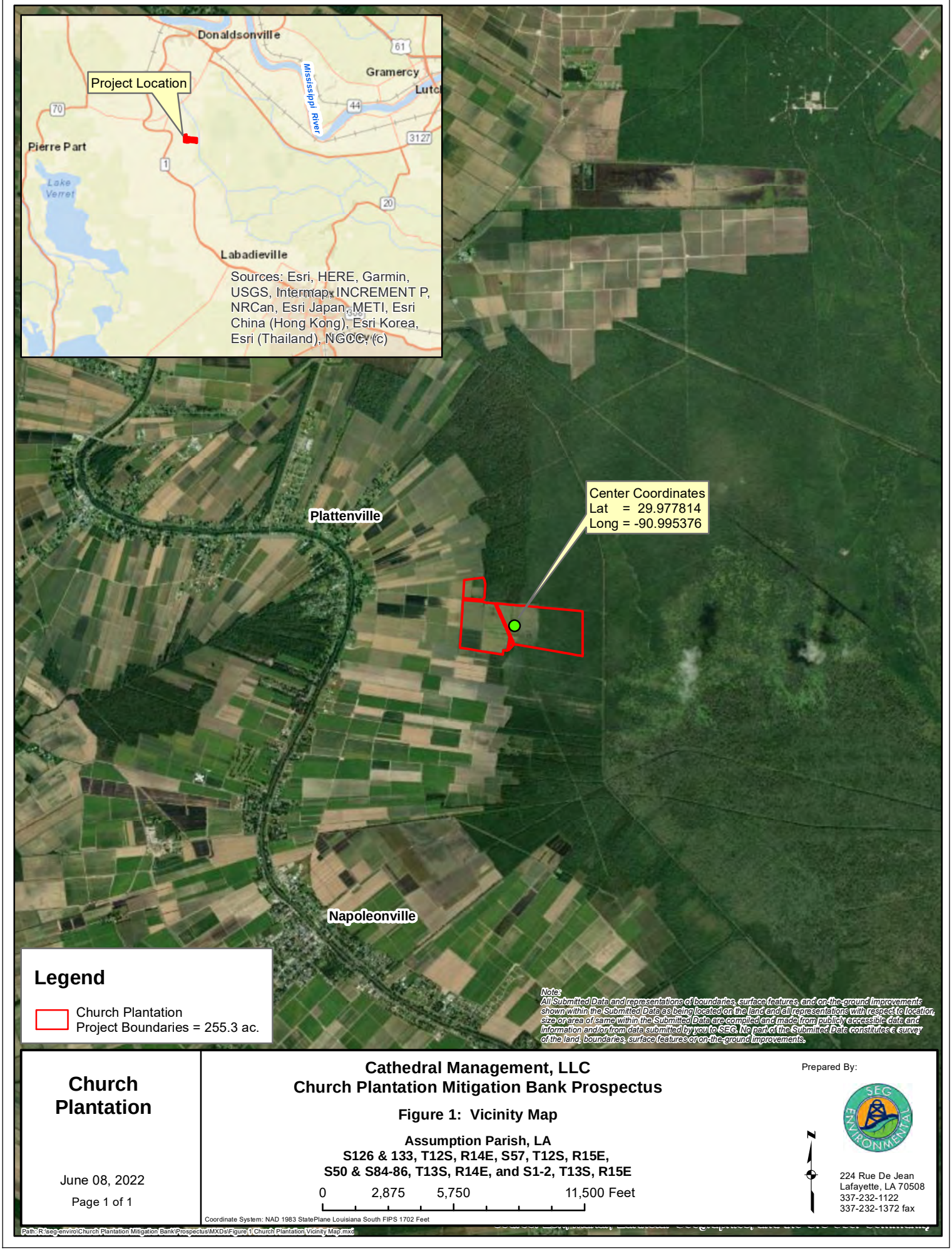
Table 1. Area (ac.) of mitigation and habitat types for the CPMB.

Table 2: Species Plant List

Species	AGCP Wetland Status	BLH Species	BLH (hardmast)	BLH (softmast)	BLH %
Bitter Pecan (Carya aquatica)	OBL	X	X		15%
Water Oak (Quercus nigra)	FAC	X	X		5%
Nuttall oak (Q. texana)	FACW	X	X		15%
Overcup Oak (Q. lyrata)	OBL	X	X		15%
Swamp Chestnut Oak (Q. michauxii)	FACW	X	X		5%
Willow Oak (Q. phellos)	FACW	X	X		5%
American Elm (Ulmus americana)	FAC	X		X	8%
Bald cypress (Taxodium distichum)	OBL	X		X	11%
Common Persimmon (Diospyros virginiana)	FAC	X		X	2%
Green Ash (Fraxinus pennsylvanica)	FACW	X		X	9%
Hackberry (Celtis laevigata)	FACW	X		X	4%
Red Maple (Acer rubrum)	FAC	X		X	4%
Sweetgum (Liquidambar styraciflua)	FAC	X		X	2%
TOTAL			60%	40%	100%

Table 2. Species plant list, mast type, percentage of each, and overall hard/soft mast ratio for bottomland hardwood habitat.

Figure 1: Vicinity Map



Church Plantation

June 08, 2022

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Cathedral Management, LLC
Church Plantation Mitigation Bank Prospectus

Figure 1: Vicinity Map

Assumption Parish, LA
S126 & 133, T12S, R14E, S57, T12S, R15E,
S50 & S84-86, T13S, R14E, and S1-2, T13S, R15E

0 2,875 5,750 11,500 Feet

Coordinate System: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet

Path: R:\seg-enviro\Church Plantation Mitigation Bank\Prospectus\MXDs\Figure 1 Church Plantation Vicinity Map.mxd

Prepared By:

224 Rue De Jean
Lafayette, LA 70508
337-232-1122
337-232-1372 fax

Figure 2: Land Use Map

Legend
Area Land Use

- Agriculture = 1,586.9 ac.
- Aquaculture/Crawfish = 61.8 ac.
- Water (Byu. Lafourche) = 11.2 ac.
- Forest (BLH) = 1,221.9 ac.
- Forest (SW) = 1,003.8 ac.
- Pasture = 45.9 ac.
- Residential = 8.7 ac.
- Residential/Commercial = 75.1 ac.
- Church Road Bank Cutout = 2.0 ac.
- Church Pasture Treeline Bank Cutout = 0.6 ac.
- Church Pipeline ROW Bank Cutout = 3.2 ac.

Church Plantation Project
Area Land Use

- Church Agriculture = 65.1 ac.
- Church Pasture = 105.1 ac.
- Church Forest (BLH) = 85.1 ac.
- Church Plantation Project Boundaries = 255.3 ac.

Church Plantation

June 08, 2022

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Cathedral Management, LLC
Church Plantation Mitigation Bank Prospectus

Figure 2: Land Use Map

Assumption Parish, LA
S126 & 133, T12S, R14E, S57, T12S, R15E,
S50 & S84-86, T13S, R14E, and S1-2, T13S, R15E

0 1,150 2,300 4,600 Feet

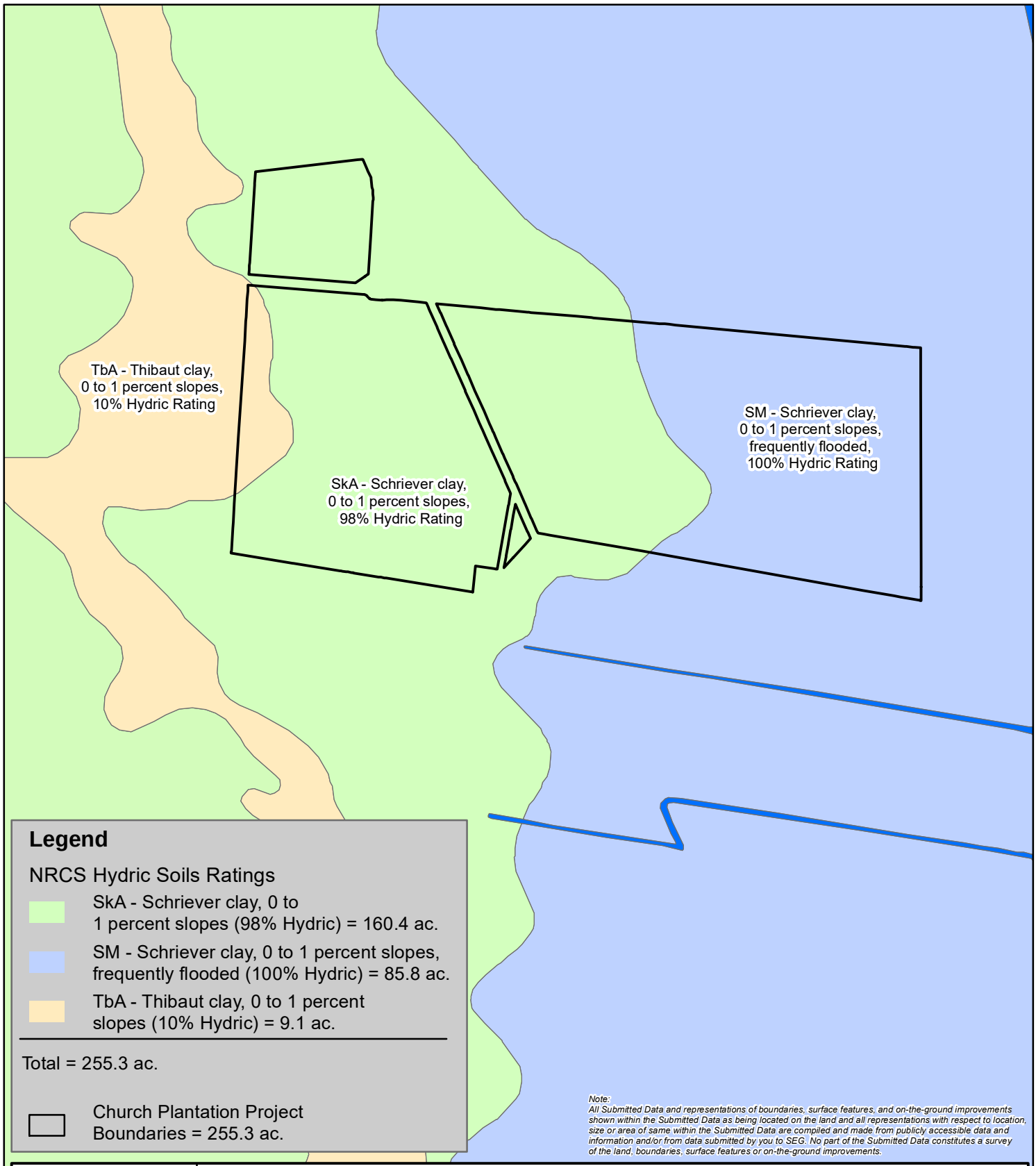
Coordinate System: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet

Path: R:\seg-enviro\Church Plantation Mitigation Bank\Prospectus\MXDs\Figure 2 Church Plantation Land Use Map.mxd

Prepared By:

SEG ENVIRONMENTAL
224 Rue De Jean
Lafayette, LA 70508
337-232-1122
337-232-1372 fax

Figure 3: Soils Map



Legend

NRCS Hydric Soils Ratings

- SkA - Schriever clay, 0 to 1 percent slopes (98% Hydric) = 160.4 ac.
- SM - Schriever clay, 0 to 1 percent slopes, frequently flooded (100% Hydric) = 85.8 ac.
- TbA - Thibaut clay, 0 to 1 percent slopes (10% Hydric) = 9.1 ac.

Total = 255.3 ac.

- Church Plantation Project Boundaries = 255.3 ac.

Note:
All Submitted Data and representations of boundaries, surface features, and on-the-ground improvements shown within the Submitted Data as being located on the land and all representations with respect to location, size or area of same within the Submitted Data are compiled and made from publicly accessible data and information and/or from data submitted by you to SEG. No part of the Submitted Data constitutes a survey of the land, boundaries, surface features or on-the-ground improvements.

Church Plantation

June 08, 2022

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Cathedral Management, LLC
Church Plantation Mitigation Bank Prospectus

Figure 3: NRCS Soils

Assumption Parish, LA
S126 & 133, T12S, R14E, S57, T12S, R15E,
S50 & S84-86, T13S, R14E, and S1-2, T13S, R15E

0 550 1,100 2,200 Feet

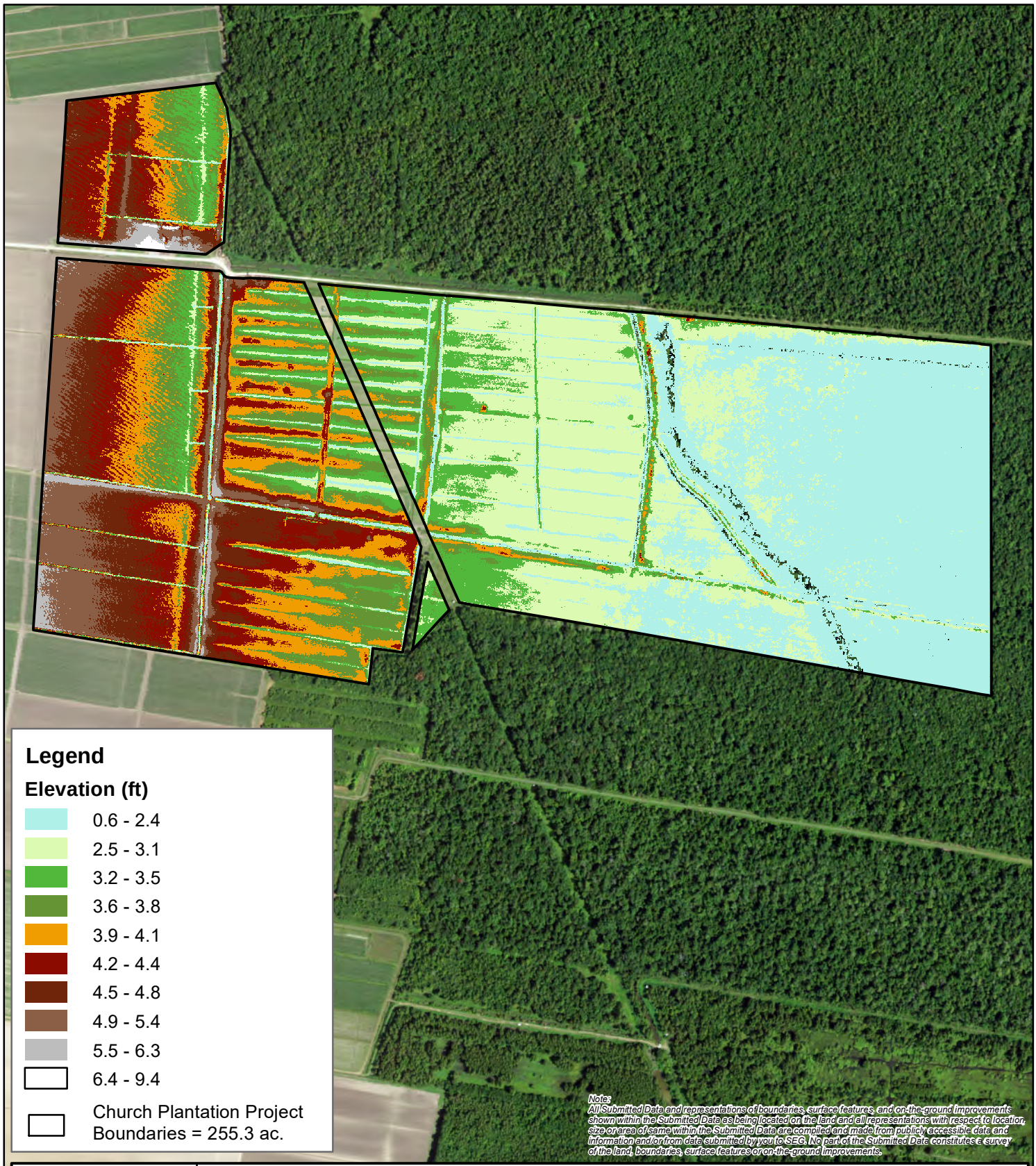
Coordinate System: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet

Path: R:\seg-enviro\Church Plantation Mitigation Bank\Prospectus\MXDs\Figure 3 Church Plantation NRCS Soils Map.mxd

Prepared By:

224 Rue De Jean
Lafayette, LA 70508
337-232-1122
337-232-1372 fax

Figure 4: Lidar Elevation Map



Note:
All Submitted Data and representations of boundaries, surface features, and on-the-ground improvements shown within the Submitted Data as being located on the land and all representations with respect to location, size, or area of same within the Submitted Data are compiled and made from publicly accessible data and information and/or from data submitted by you to SEG. No part of the Submitted Data constitutes a survey of the land, boundaries, surface features or on-the-ground improvements.

Church Plantation

June 08, 2022

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Cathedral Management, LLC
Church Plantation Mitigation Bank Prospectus

Figure 4: 2017 USGS 1m DEM
Upper Delta Plain, LA

Assumption Parish, LA
S126 & 133, T12S, R14E, S57, T12S, R15E,
S50 & S84-86, T13S, R14E, and S1-2, T13S, R15E

0 412.5 825 1,650 Feet

Coordinate System: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet

Path: R:\seg-enviro\Church Plantation Mitigation Bank\Prospectus\MXDs\Figure 4 USGS 2017 1m DEM.mxd

Prepared By:

224 Rue De Jean
Lafayette, LA 70508
337-232-1122
337-232-1372 fax

Figure 5: Contributing Watershed

Note:
All Submitted Data and representations of boundaries, surface features, and on-the-ground improvements shown within the Submitted Data as being located on the land and all representations with respect to location, size or area of same within the Submitted Data are compiled and made from publicly accessible data and information and/or from data submitted by you to SEG. No part of the Submitted Data constitutes a survey of the land, boundaries, surface features or on-the-ground improvements.

Church Plantation

June 08, 2022

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Cathedral Management, LLC
Church Plantation Mitigation Bank Prospectus

Figure 5: Contributing Watershed

Assumption Parish, LA
S126 & 133, T12S, R14E, S57, T12S, R15E,
S50 & S84-86, T13S, R14E, and S1-2, T13S, R15E

0 55,000 110,000 220,000 Feet

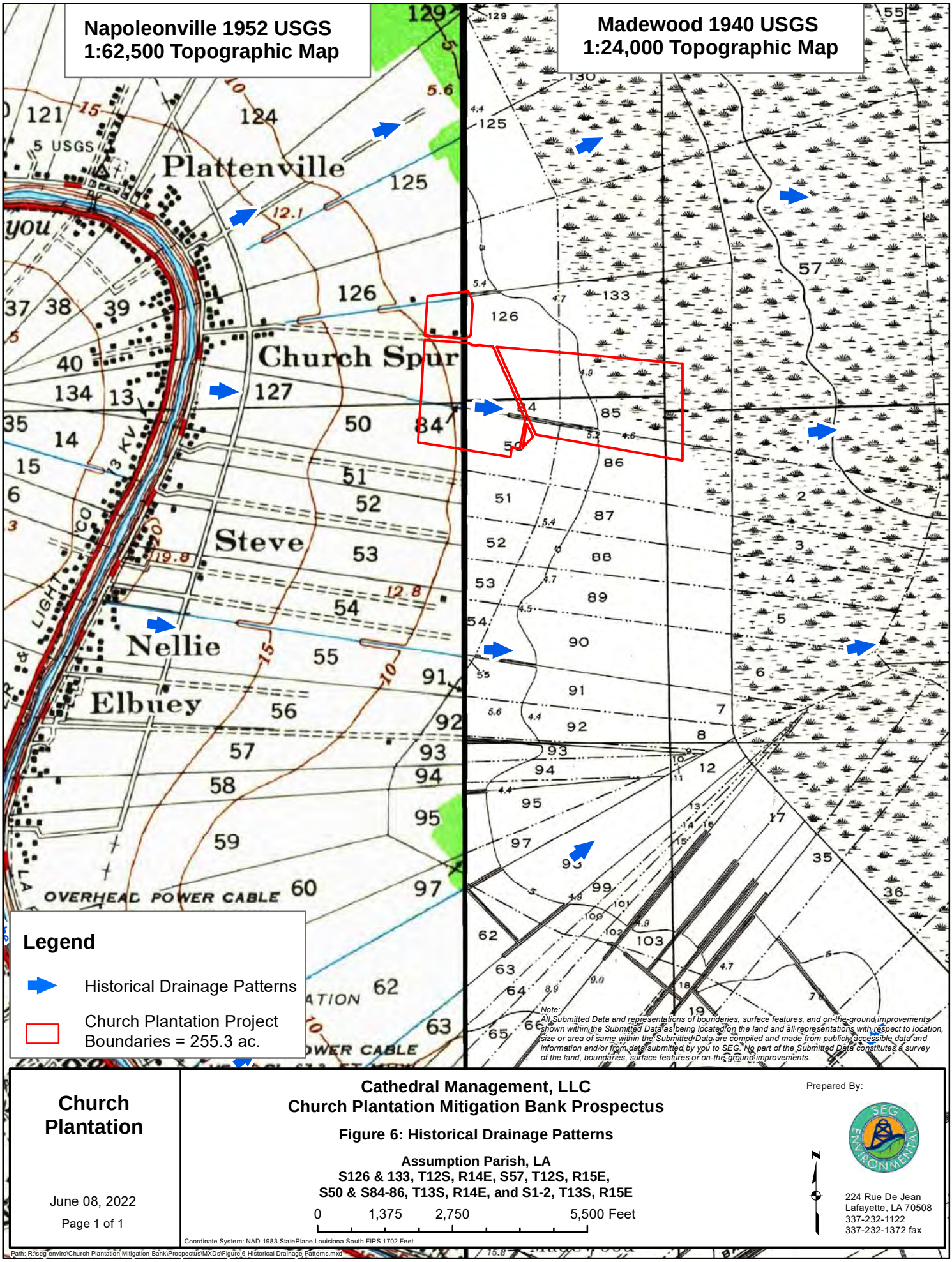
Coordinate System: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet

Path: R:\seg-enviro\Church Plantation Mitigation Bank\Prospectus\MXDs\Figure 5 Contributing Watershed.mxd

Prepared By:

224 Rue De Jean
Lafayette, LA 70508
337-232-1122
337-232-1372 fax

Figure 6: Historical Drainage Patterns



Church Plantation

June 08, 2022

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Cathedral Management, LLC
Church Plantation Mitigation Bank Prospectus

Figure 6: Historical Drainage Patterns

Assumption Parish, LA
S126 & 133, T12S, R14E, S57, T12S, R15E,
S50 & S84-86, T13S, R14E, and S1-2, T13S, R15E

0 1,375 2,750 5,500 Feet

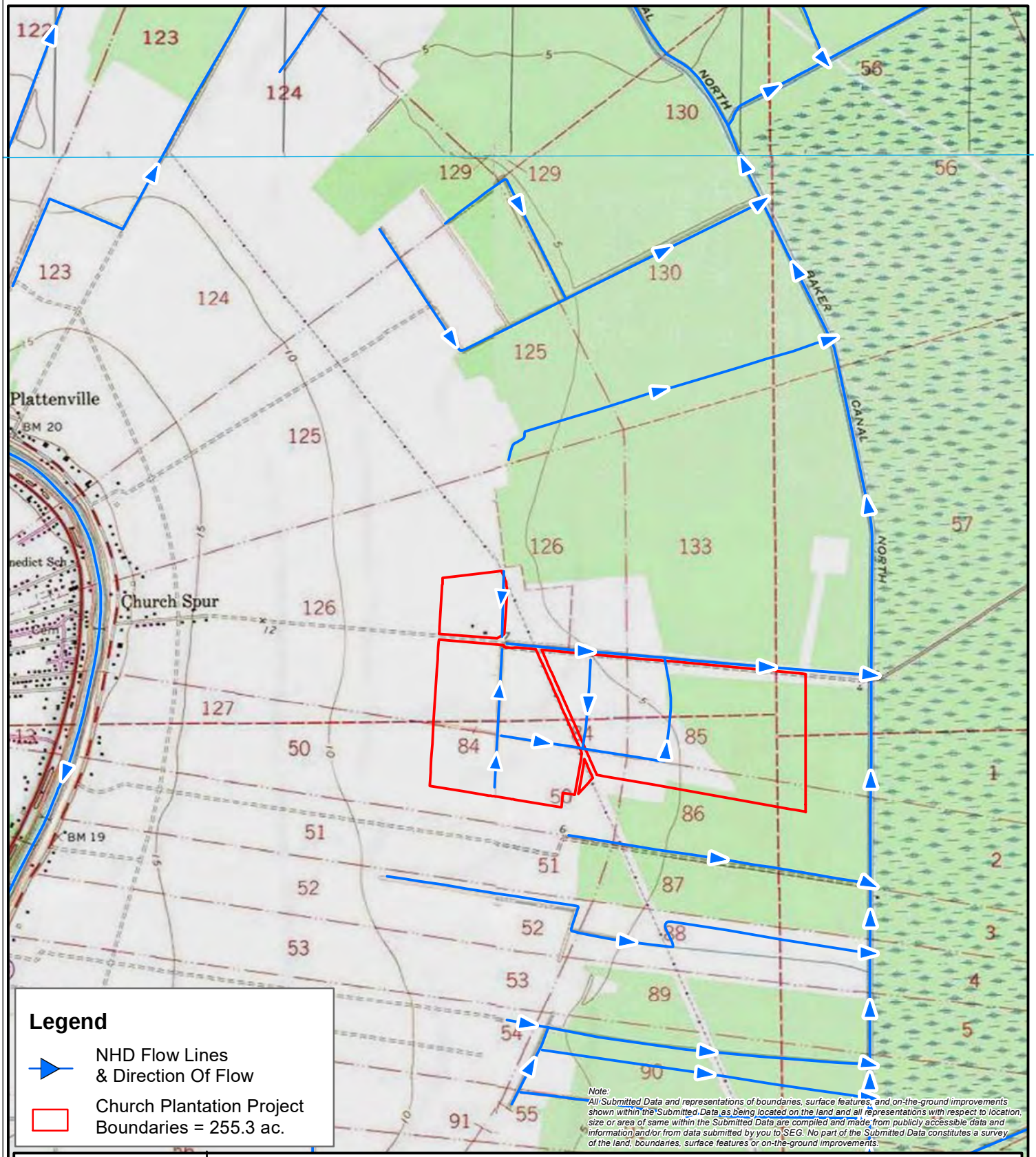
Coordinate System: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet

Path: R:\seg-enviro\Church Plantation Mitigation Bank\Prospectus\MXDs\Figure 6 Historical Drainage Patterns.mxd

Prepared By:

224 Rue De Jean
Lafayette, LA 70508
337-232-1122
337-232-1372 fax

Figure 7: Current Drainage Patterns



Legend

- NHD Flow Lines & Direction Of Flow
- Church Plantation Project Boundaries = 255.3 ac.

Note:
All Submitted Data and representations of boundaries, surface features, and on-the-ground improvements shown within the Submitted Data as being located on the land and all representations with respect to location, size or area of same within the Submitted Data are compiled and made from publicly accessible data and information and/or from data submitted by you to SEG. No part of the Submitted Data constitutes a survey of the land, boundaries, surface features or on-the-ground improvements.

Church Plantation

June 20, 2022

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Cathedral Management, LLC
Church Plantation Mitigation Bank Prospectus

Figure 7: Current Drainage Patterns

Assumption Parish, LA
S126 & 133, T12S, R14E, S57, T12S, R15E,
S50 & S84-86, T13S, R14E, and S1-2, T13S, R15E

0 1,050 2,100 4,200 Feet

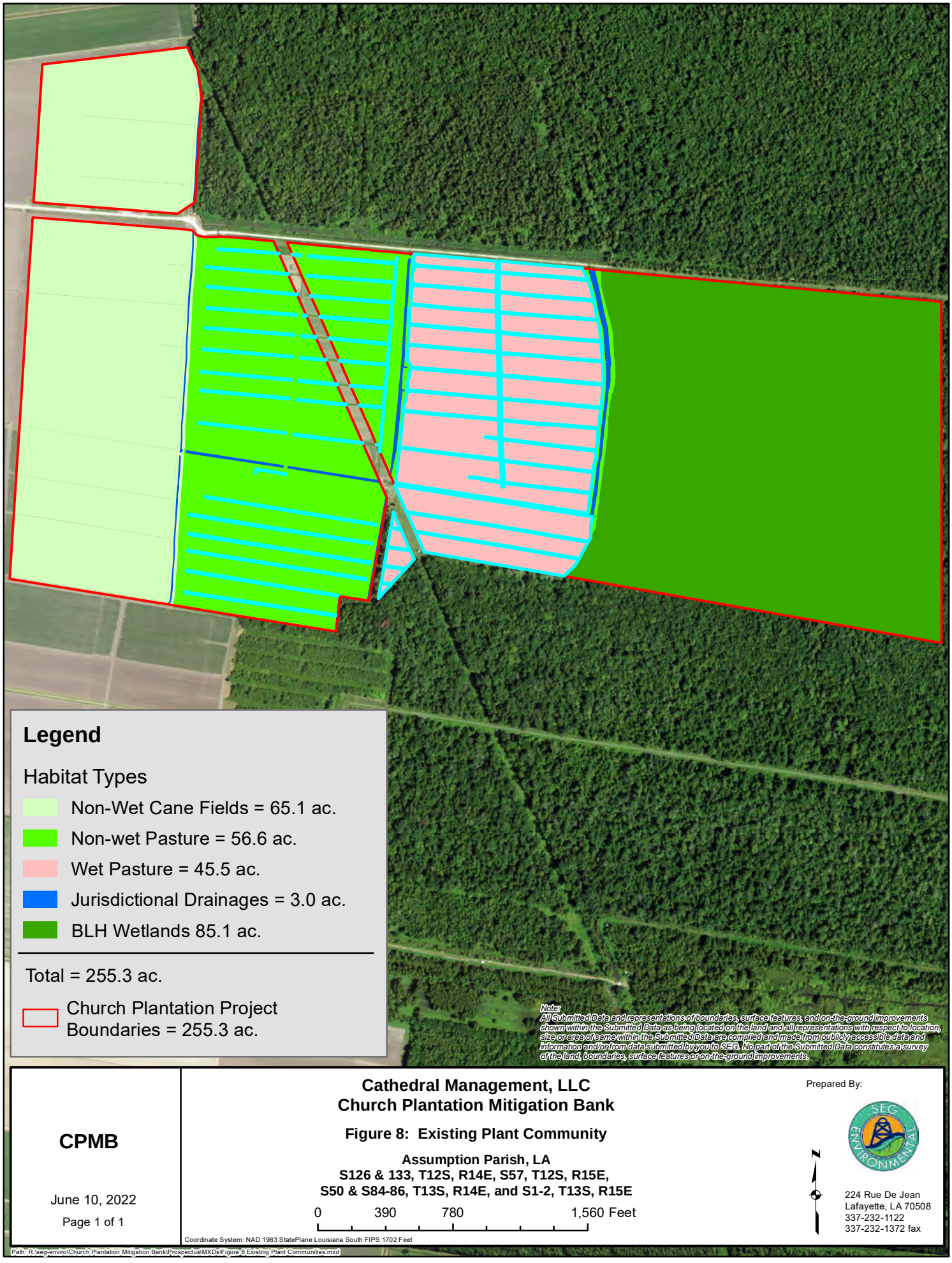
Coordinate System: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet

Path: R:\seg-enviro\Church Plantation Mitigation Bank\Prospectus\MXDs\Figure 7 Current Drainage Patterns.mxd

Prepared By:

224 Rue De Jean
Lafayette, LA 70508
337-232-1122
337-232-1372 fax

Figure 8: Current Plant Community



CPMB

June 10, 2022

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Cathedral Management, LLC
Church Plantation Mitigation Bank

Figure 8: Existing Plant Community

Assumption Parish, LA
S126 & 133, T12S, R14E, S57, T12S, R15E,
S50 & S84-86, T13S, R14E, and S1-2, T13S, R15E

0 390 780 1,560 Feet

Coordinate System: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet

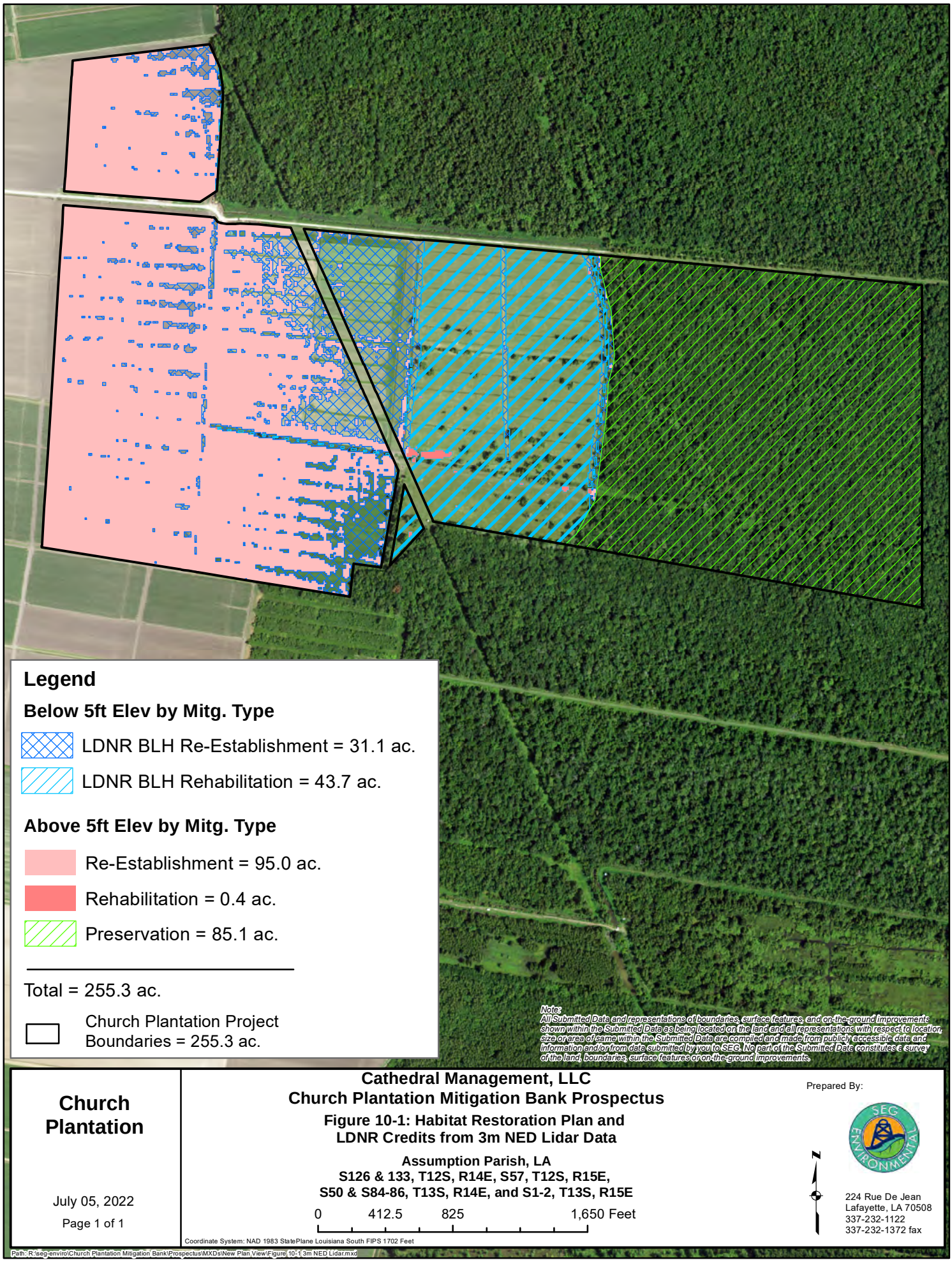
Path: R:\seg-enviro\Church Plantation Mitigation Bank\Prospectus\MXDs\Figure 8 Existing Plant Communities.mxd

Prepared By:

224 Rue De Jean
Lafayette, LA 70508
337-232-1122
337-232-1372 fax

Figure 9: Plan View Drawings (See Attachment D)

Figure 10: Habitat Restoration Plan and Lidar Derived Coastal Credit Estimates



Church Plantation

July 05, 2022

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Cathedral Management, LLC
Church Plantation Mitigation Bank Prospectus

Figure 10-1: Habitat Restoration Plan and LDNR Credits from 3m NED Lidar Data

Assumption Parish, LA
S126 & 133, T12S, R14E, S57, T12S, R15E, S50 & S84-86, T13S, R14E, and S1-2, T13S, R15E

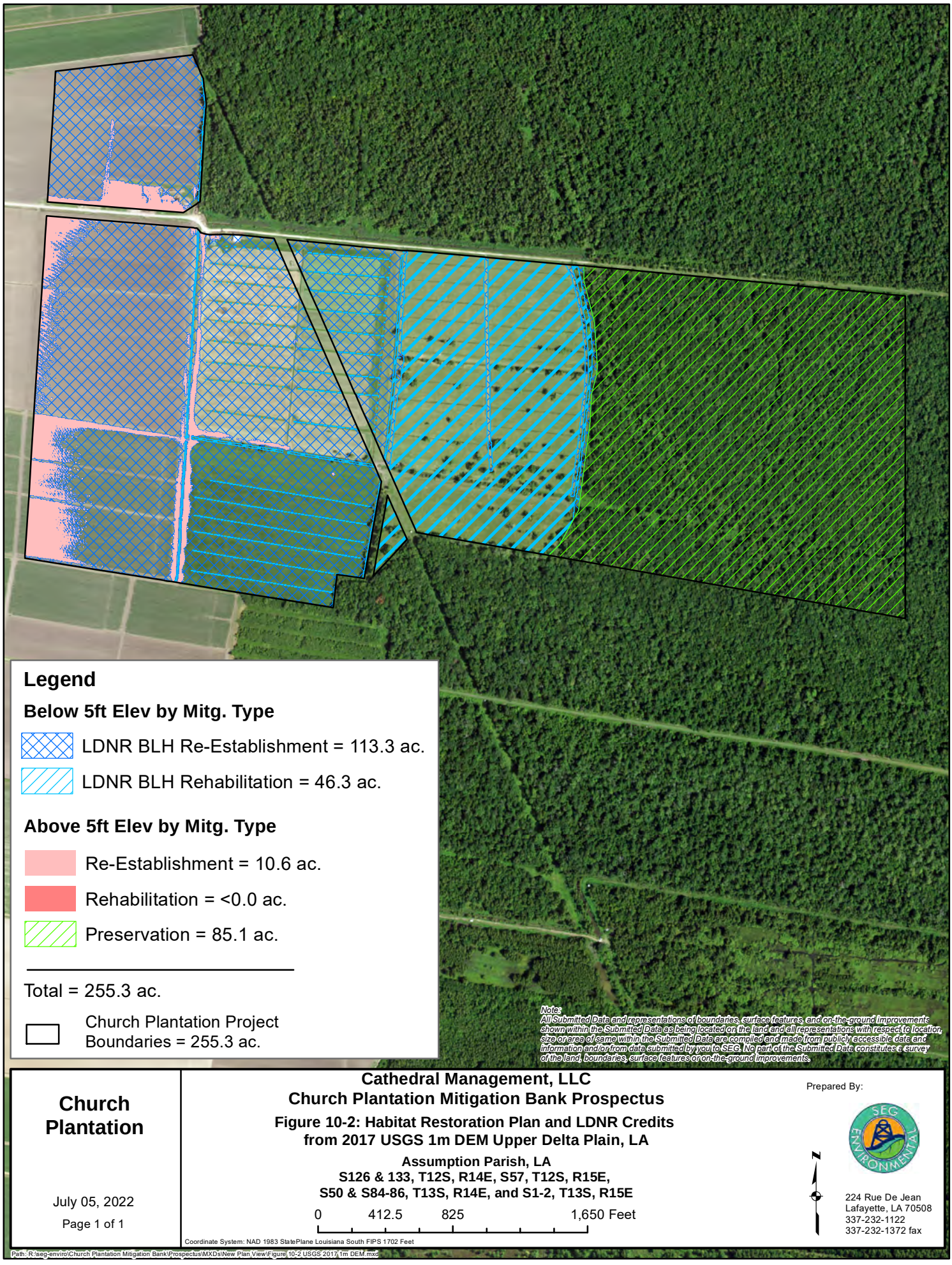
0 412.5 825 1,650 Feet

Coordinate System: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet

Path: R:\seg-enviro\Church Plantation Mitigation Bank\Prospectus\MXDs\New Plan View\Figure 10-1 3m NED Lidar.mxd

Prepared By:

224 Rue De Jean
Lafayette, LA 70508
337-232-1122
337-232-1372 fax



Church Plantation

July 05, 2022

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Cathedral Management, LLC
Church Plantation Mitigation Bank Prospectus

Figure 10-2: Habitat Restoration Plan and LDNR Credits from 2017 USGS 1m DEM Upper Delta Plain, LA

Assumption Parish, LA
S126 & 133, T12S, R14E, S57, T12S, R15E, S50 & S84-86, T13S, R14E, and S1-2, T13S, R15E

0 412.5 825 1,650 Feet

Coordinate System: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet

Path: R:\seg-enviro\Church Plantation Mitigation Bank\Prospectus\MXDs\New Plan View\Figure 10-2 USGS 2017 1m DEM.mxd

Prepared By:

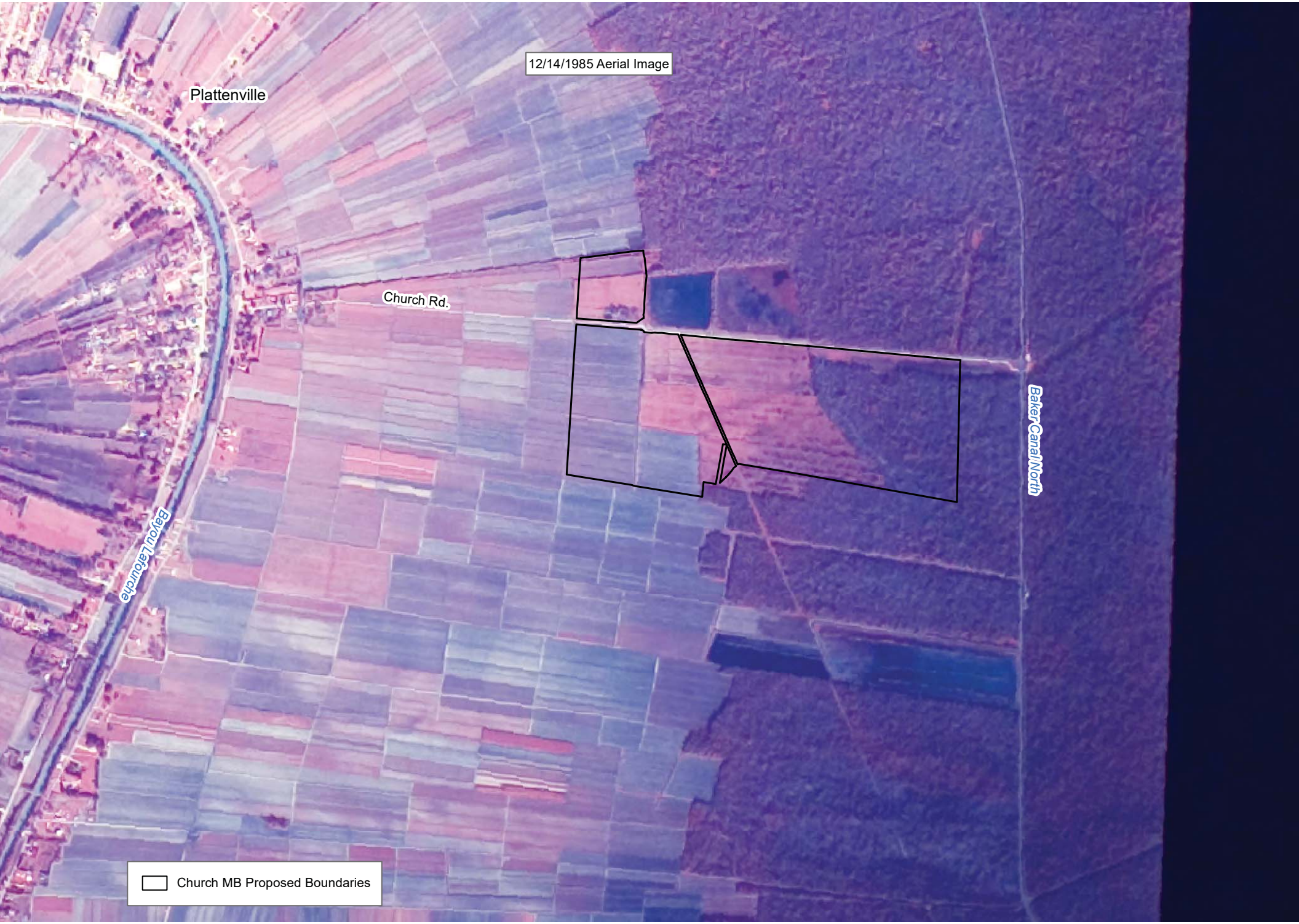
224 Rue De Jean
Lafayette, LA 70508
337-232-1122
337-232-1372 fax

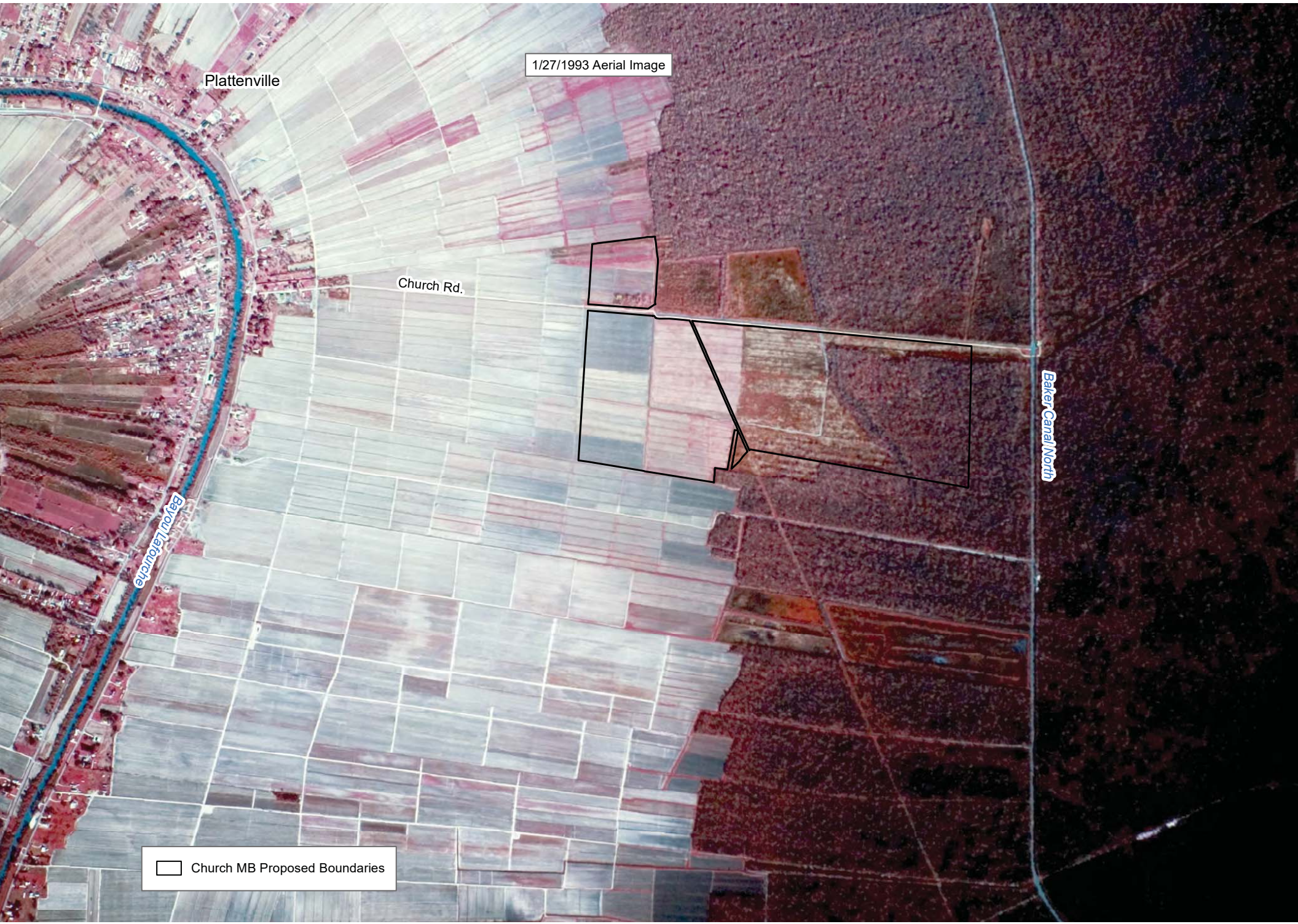
ATTACHMENT B
Historical Aerial Imagery


5/11/1952 Aerial Image
Plattenville
Church Rd.
Baker Canal North
Bayou Lafourche
Church MB Proposed Boundaries


4/29/1961 Aerial Image
Plattenville
Church Rd.
Bayou Lafourche
Baker Canal North
4-29-61
Church MB Proposed Boundaries
USGS


3/17/1972 Aerial Image
Plattenville
Church Rd.
Bayou Lafourche
Baker Canal North
Church MB Proposed Boundaries


12/14/1985 Aerial Image
Plattenville
Church Rd.
Bayou Lafourche
Baker Canal North
Church MB Proposed Boundaries


1/27/1993 Aerial Image
Plattenville
Church Rd.
Bayou Lafourche
Baker Canal North
Church MB Proposed Boundaries

ATTACHMENT C
Preliminary Jurisdictional Determination and Bank Wetlands and Non-wetlands

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

October 25, 2021

Regulatory Division
Jurisdiction and Enforcement Branch

Paul Chadwick
SEG Environmental, LLC
224 Rue De Jean
Lafayette, LA 70508

Dear Mr. Chadwick:

Reference is made to your request, on behalf of Cathedral Management, LLC, for a U.S. Army Corps of Engineers' (Corps) jurisdictional determination on property located in Sections 126 and 133, Townships 12, 13, and 15 South, Range 14 and 15 East, Assumption Parish, Louisiana (enclosed map). Specifically, this property is identified as a ±265.1 acre site east of LA 308 located near Paincourtville.

Based on review of recent maps, aerial photography, soils data, and the delineation report provided with your request, we have determined that part of the property contains wetlands and non-wetland waters that may be subject to Corps' jurisdiction. The approximate limits of the wetlands and non-wetland waters are designated in red and blue, respectively, on the map. A Department of the Army (DA) permit under Section 404 of the Clean Water Act will be required prior to the deposition or redistribution of dredged or fill material into waters of the U.S.

The delineation included herein has been conducted to identify the location and extent of the aquatic resource boundaries and/or the jurisdictional status of aquatic resources for purposes of the Clean Water Act for the particular site identified in this request. This delineation and/or jurisdictional determination may not be valid for the Wetland Conservation Provisions of the Food Security Act of 1985, as amended. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should discuss the applicability of a certified wetland determination with the local USDA service center, prior to starting work.

Please be advised that this property 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 and your client 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 only valid for the identified project or individual(s) only and is not to be used for decision-making by any other individual or entity.

Should there be any questions concerning these matters, please contact Mr. Jon Barmore at (504) 862-1704 and reference our Account No. MVN-2021-00667-SG. If you have specific questions regarding the permit process or permit applications, please contact our Central Evaluation Branch at (504) 862-1581.

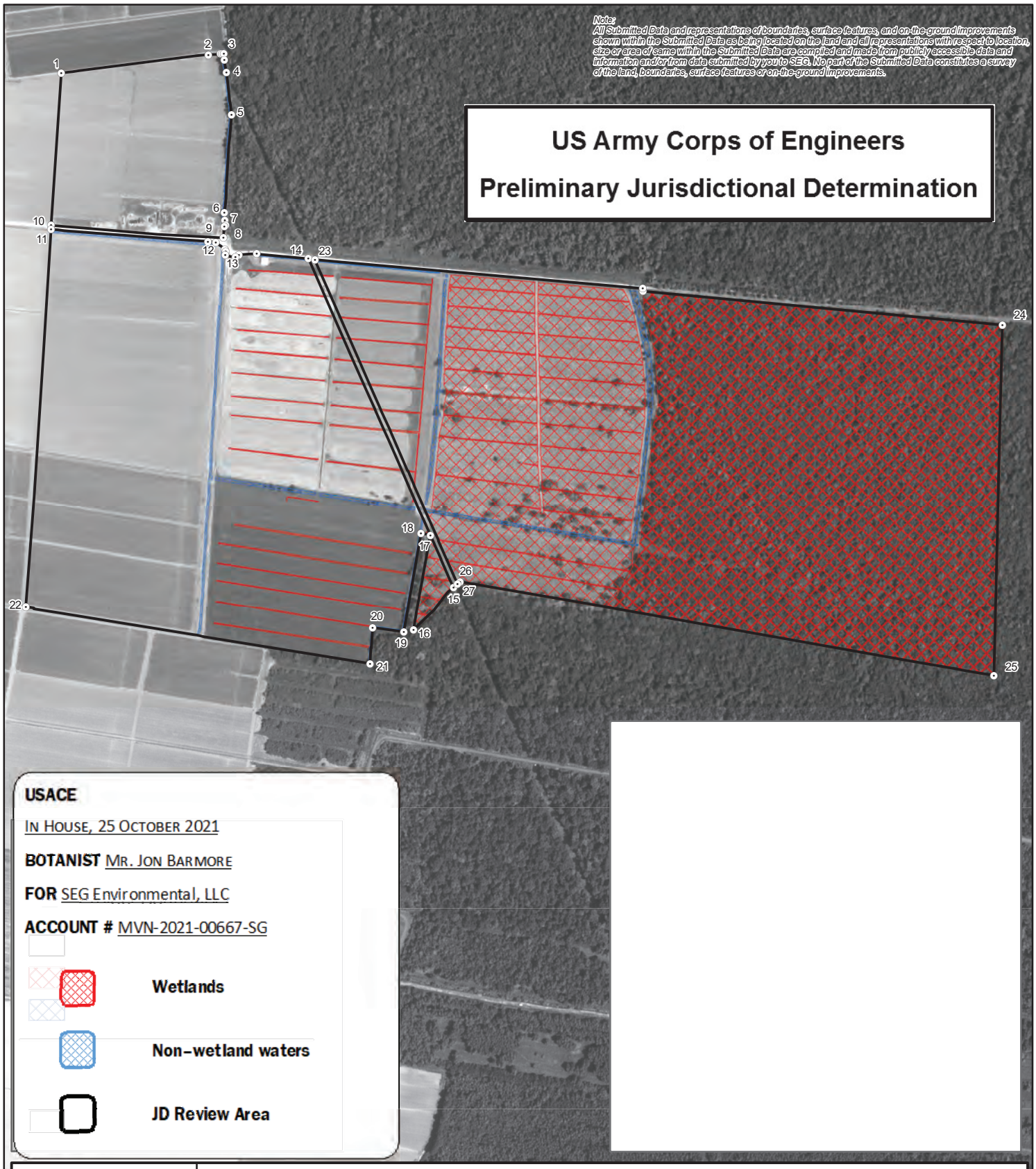
Sincerely,

Brad Guarisco

Digitally signed by Brad Guarisco
Date: 2021.10.25 16:20:49 -05'00'

for Martin S. Mayer
Chief, Regulatory Division

Enclosures



CPMB

October 13, 2021

Cathedral Management, LLC
Church Plantation Wetland Delineation

Attachment E: Wetland Delineation Results Map

Assumption Parish, LA
S126 & 133, T12S, R14E, S57, T12S, R15E,
S50 & S84-86, T13S, R14E, and S1-2, T13S, R15E

0 412.5 825 1,650 Feet

Coordinate System: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet

Path: R:\seg-enviro\Church Plantation Mitigation Bank\Wetland Delineation\MXDs\Attachment E Church Plantation Wetlands Map pg6_BW.mxd

Prepared By:

224 Rue De Jean
Lafayette, LA 70508
337-232-1122
337-232-1372 fax

PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD: 10/25/2021

B. NAME AND ADDRESS OF PERSON REQUESTING PJD:

Mr. Paul Chadwick
SEG Environmental, LLC
224 Rue De Jean
Lafayette, LA 70508

C. DISTRICT OFFICE, FILE NAME, AND NUMBER: MVN-2021-00667-SG

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:
(USE THE TABLE BELOW TO DOCUMENT MULTIPLE AQUATIC RESOURCES AND/OR AQUATIC RESOURCES AT DIFFERENT SITES)

State: Louisiana County/parish/borough: Assumption City:

Center coordinates of site (lat/long in degree decimal format):

Lat.: 29.978 ° Long.: -90.995 °

Universal Transverse Mercator:

Name of nearest waterbody: Baker Canal North

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☒ Office (Desk) Determination. Date: 10/18/2021

☐ Field Determination. Date(s):

TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH "MAY BE" SUBJECT TO REGULATORY JURISDICTION.

Site number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)
1	29.978	-90.995	±134.4 ac	wetlands	Sec 404
1	29.978	-90.995	±3.1 ac	non-wetland waters	Sec 404

SUPPORTING DATA. Data reviewed for PJD (check all that apply)

Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items:

☒ Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:
Map: _____.

☒ Data sheets prepared/submitted by or on behalf of the PJD requestor.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report. Rationale: _____.

☐ Data sheets prepared by the Corps: _____.

☐ Corps navigable waters' study: _____.

☒ U.S. Geological Survey Hydrologic Atlas: _____.
☐ USGS NHD data.
☒ USGS 8 and 12 digit HUC maps.

☒ U.S. Geological Survey map(s). Cite scale & quad name: 1:24,000 Madewood.

☒ Natural Resources Conservation Service Soil Survey. Citation: web soil survey.

☐ National wetlands inventory map(s). Cite name: _____.

☐ State/local wetland inventory map(s): _____.

☐ FEMA/FIRM maps: _____.

☐ 100-year Floodplain Elevation is: ____. (National Geodetic Vertical Datum of 1929)

☒ Photographs: ☒ Aerial (Name & Date): 1956,1961,1970,1979,1985,1998,2006,2015,2019.
or ☒ Other (Name & Date): 1998,2004,2005 CIR.

☐ Previous determination(s). File no. and date of response letter: _____.

☒ Other information (please specify): LiDAR.

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

Jon Barmore Digitally signed by Jon Barmore Date: 2021.10.25 11:14:28 -05'00'

Signature and date of Regulatory staff member completing PJD

Signature and date of person requesting PJD (REQUIRED, unless obtaining the signature is impracticable)[1]

[1] Districts may establish timeframes for requestor to return signed PJD forms. If the requestor does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.

1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.

2) In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD, which does not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant's acceptance of the use of the PJD; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there *"may be"* waters of the U.S. and/or that there *"may be"* navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: SEG Environmental, LLC	File Number: MVN-2021-00667-SG	Date: 10/25/2021
Attached is:		See Section below
☐	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
☐	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
☐	PERMIT DENIAL	C
☐	APPROVED JURISDICTIONAL DETERMINATION	D
☑	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/appeals.aspx or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

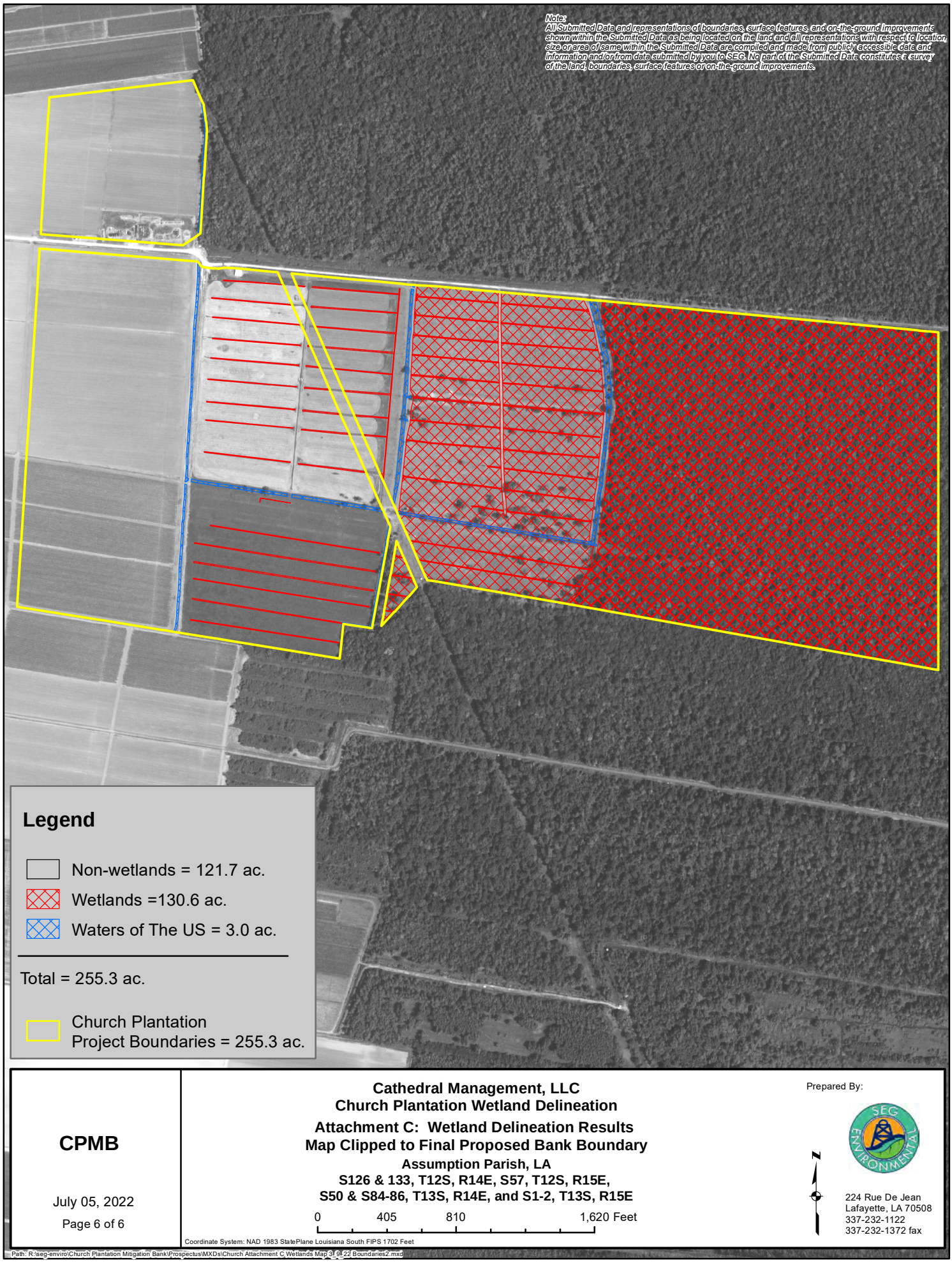
Brad Guarisco
Chief, Surveillance & Enforcement Section
U.S. Army Corps of Engineers
7400 Leake Avenue
New Orleans, LA 70118
504-862-2274

If you only have questions regarding the appeal process you may also contact:

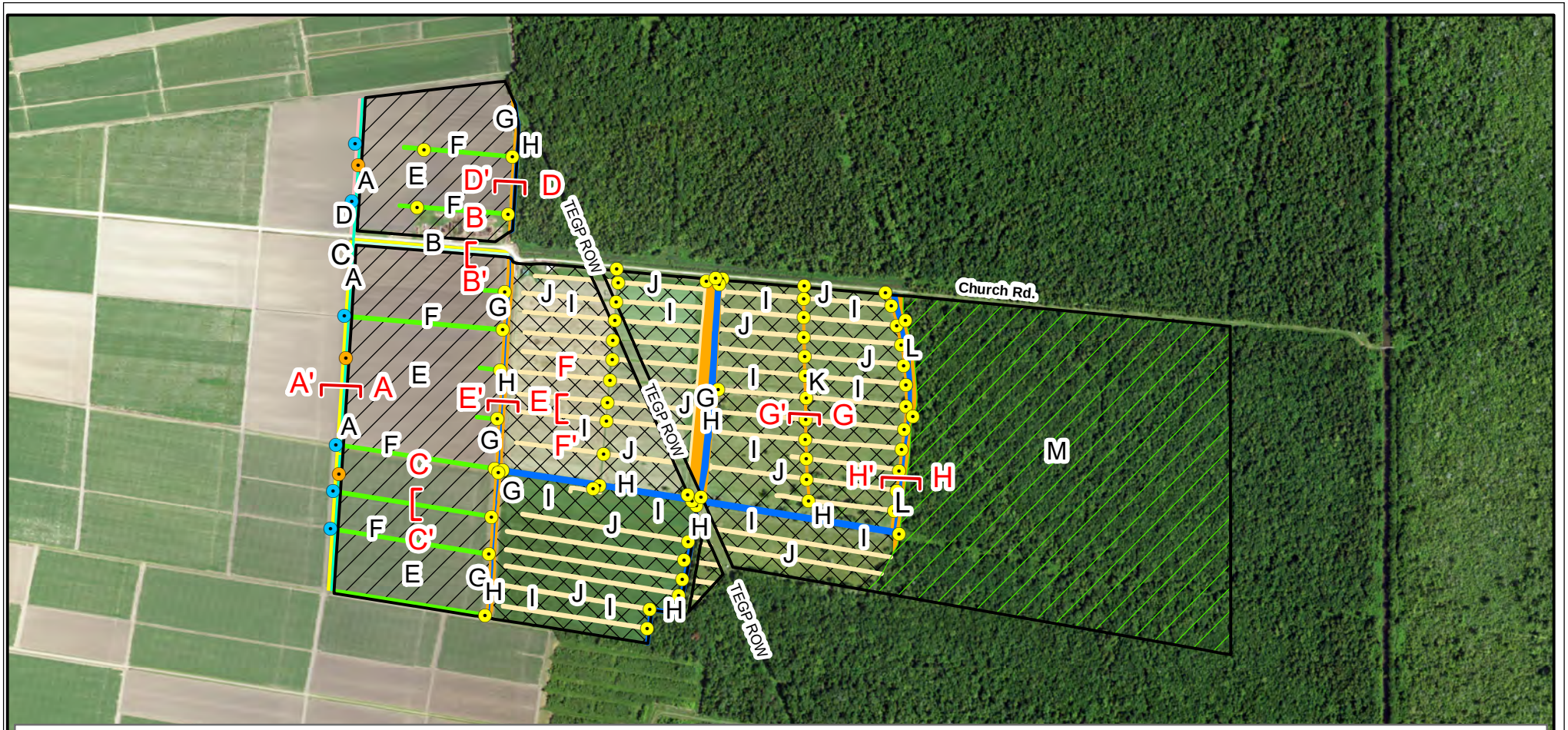
Administrative Appeals Review Officer
Mississippi Valley Division
P.O. Box 80 (1400 Walnut Street)
Vicksburg, MS 39181-0080
601-634-5820 FAX: 601-634-5816

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

	Date:	Telephone number:
_____ Signature of appellant or agent.		


Note:
All Submitted Data and representations of boundaries, surface features, and on-the-ground improvements shown within the Submitted Data as being located on the land and all representations with respect to location, size or area of same within the Submitted Data are compiled and made from publicly accessible data and information and/or from data submitted by you to SEG. No part of the Submitted Data constitutes a survey of the land, boundaries, surface features or on-the-ground improvements.
Legend
Non-wetlands = 121.7 ac.
Wetlands =130.6 ac.
Waters of The US = 3.0 ac.
Total = 255.3 ac.
Church Plantation
Project Boundaries = 255.3 ac.
Cathedral Management, LLC
Church Plantation Wetland Delineation
Attachment C: Wetland Delineation Results
Map Clipped to Final Proposed Bank Boundary
Assumption Parish, LA
S126 & 133, T12S, R14E, S57, T12S, R15E,
S50 & S84-86, T13S, R14E, and S1-2, T13S, R15E
0
405
810
1,620 Feet
Coordinate System: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet
Path: R:\seg-enviro\Church Plantation Mitigation Bank\Prospectus\MXDs\Church Attachment C Wetlands Map 3_9_22 Boundaries2.mxd
CPMB
July 05, 2022
Page 6 of 6
Prepared By:
SEG ENVIRONMENTAL
N
224 Rue De Jean
Lafayette, LA 70508
337-232-1122
337-232-1372 fax

ATTACHMENT D
Plan View Drawings



Hydrologic Modifications

- Culverts to be removed (68)
- Bank Access Ditch Crossing 4' Dia. x 15' L Culverts (3)
- 8-10" Dia. Culvert Under Headland to Drain Ag. to the W into New Ditch
- A — New Drainage Ditch to Construct to Route Ag. Drainage Around the Bank (Cross Sec. A)
- B — Existing Drainage to Enlarge (Cross Sec. B)
- C — Existing Headland to Enlarge (Cross Sec. A)
- D — New Headland to Construct
- E — North and South Cane Fields
- F — Ag. Surface Drains to Fill With In-Situ Cane Field Material (Cross Section C)
- G — Headlands to Level (Cross Sec. E)
- H — Main Ag. Drains to Fill Wt In-Situ Headland, Cane Field, & Pasture Material (Cross Sec. E)
- I — East and West Pastures to Level
- J — Ag. Surface Drains to Fill Wt. In-Situ Pasture Material (Cross Sec. F)
- K — Headland Material to be Used to Fill Adjacent Pasture Drains (Cross Sec. G)
- L — Eastern Main Ag. Drain to Fill With In-Situ Headland, Pasture, & Levee Material (Cross Sec. H)
- M — Existing BLH Forest Preservation

Church Plantation

Church Plantation Project Boundaries = 255.3 ac.

June 09, 2022

Cathedral Management, LLC
Church Plantation Mitigation Bank Prospectus

Figure 9-1: Plan View
Hydrologic Restoration Drawings

Assumption Parish, LA
S126 & 133, T12S, R14E, S57, T12S, R15E,
S50 & S84-86, T13S, R14E, and S1-2, T13S, R15E

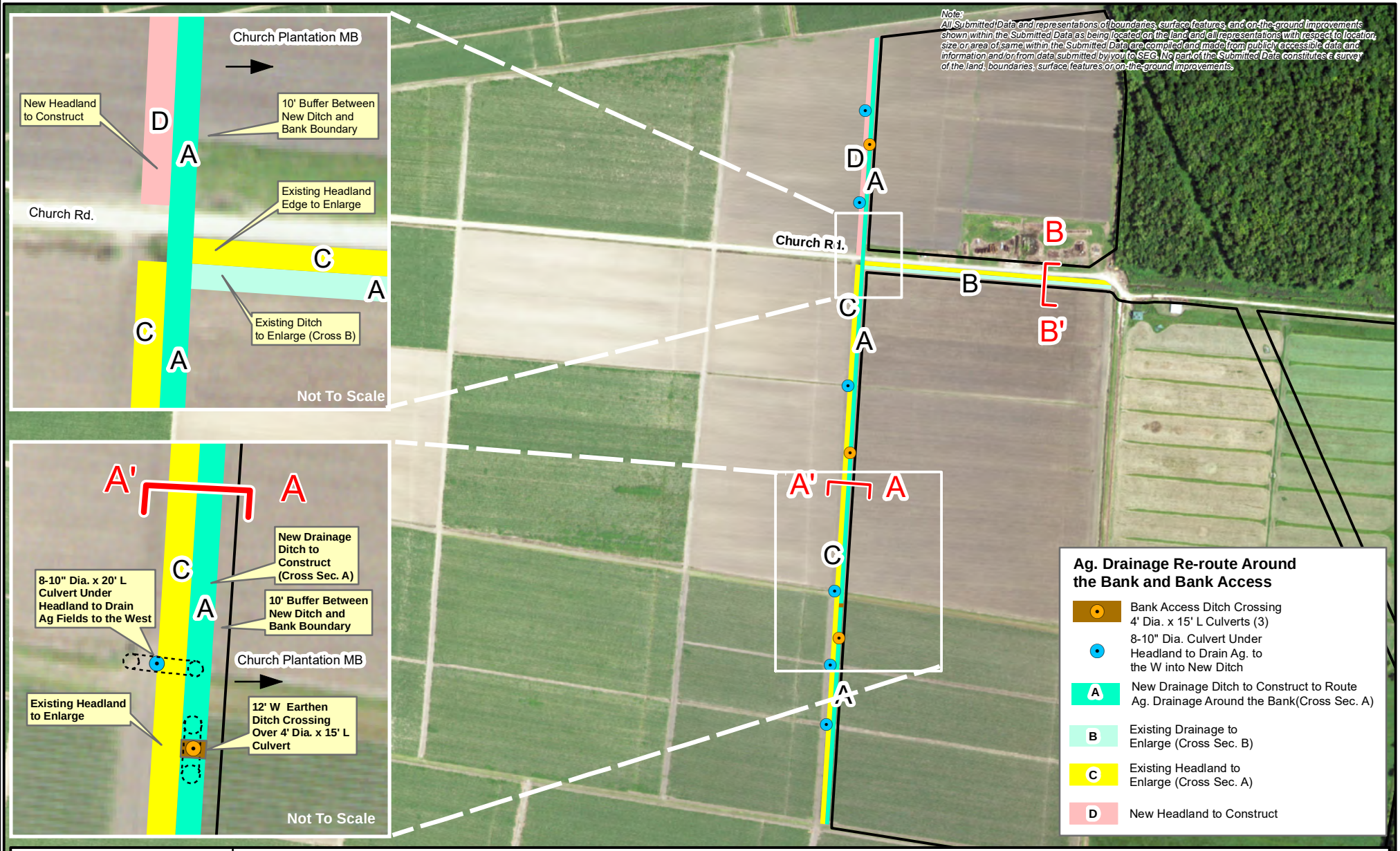
0 470 940 1,880 Feet

Coordinate System: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet

Prepared By:

224 Rue De Jean
Lafayette, LA 70508
337-232-1122
337-232-1372 fax

Path: R:\seg-enviro\Church Plantation Mitigation Bank\Prospectus\MXDs\New Plan View\Plan View Figure 9_1 Landscape.mxd



Church Plantation

Church Plantation Project Boundaries = 255.3 ac.

June 09, 2022

Page 1 of 1

Cathedral Management, LLC
Church Plantation Mitigation Bank Prospectus

Figure 9-2: Plan View
Hydrologic Restoration Drawings

Assumption Parish, LA
S126 & 133, T12S, R14E, S57, T12S, R15E,
S50 & S84-86, T13S, R14E, and S1-2, T13S, R15E

0 265 530 1,060 Feet

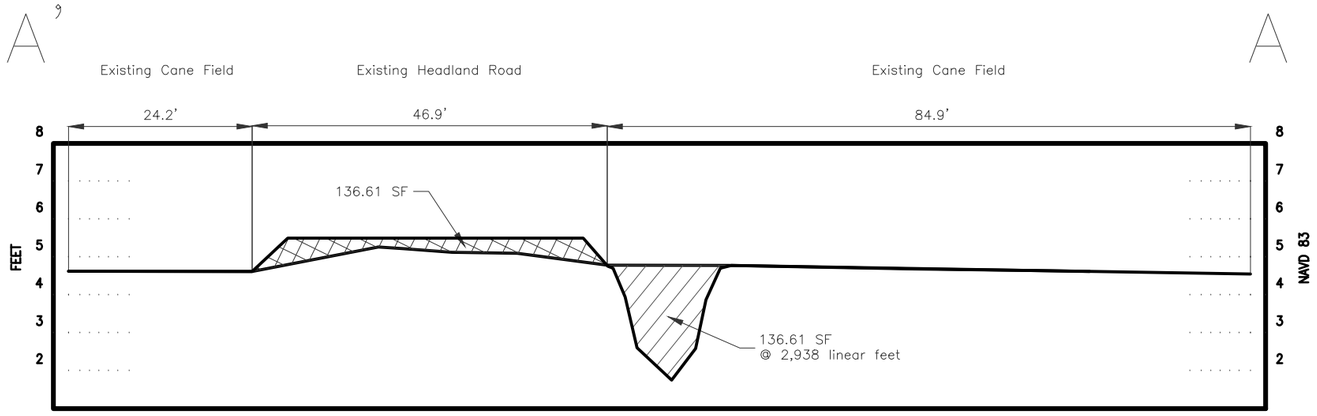
Coordinate System: NAD 1983 StatePlane Louisiana South FIPS 1702 Feet

Prepared By:

224 Rue De Jean
Lafayette, LA 70508
337-232-1122
337-232-1372 fax

Path: R:\seg-enviro\Church Plantation Mitigation Bank\Prospectus\MXDs\New Plan View\Plan View Figure 9_2 New Ag Ditch.mxd

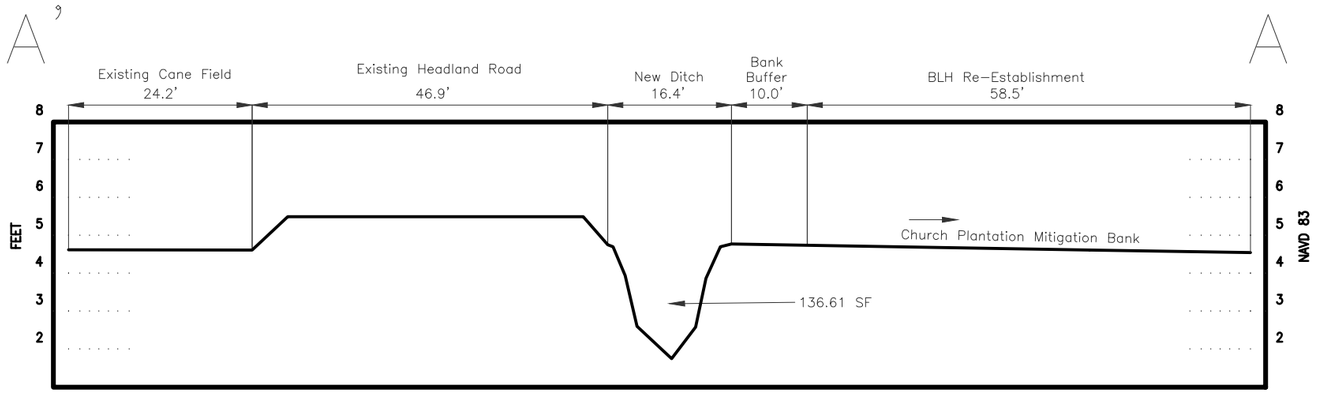
PRE–CONSTRUCTION SECTION



PROPOSED CUT
14,865 Cu. Yds.

PROPOSED FILL
14,865 Cu. Yds.

POST–CONSTRUCTION SECTION



N

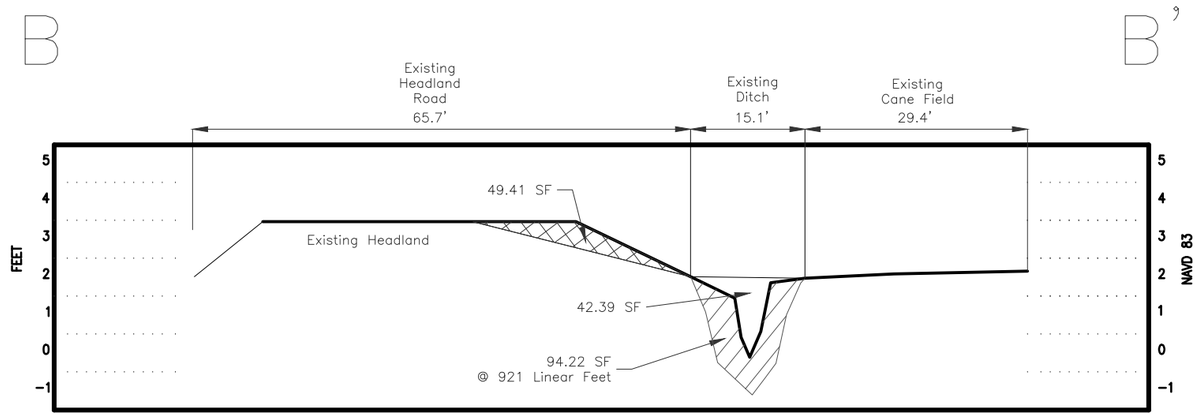
Slope

Basis of Elevations:
The elevations shown hereon are based on the "North American Vertical Datum
of 1988 – NAVD 88" (Geoid 12b) using GPS C4Gnet–RTN System accessed on August 19, 2021.

FIGURE 9-3
PROFILES NOT TO SCALE

ACADIA
LAND SURVEYING, LLC
ALABAMA • LOUISIANA • MISSISSIPPI • TEXAS
305 EAST 2ND STREET, THIBODAUX, LOUISIANA 70301
Phone • (985) 449-0084 Fax • (985) 449-0085
EMAIL • ACADIA@ACADIALANDSURVEYING.COM

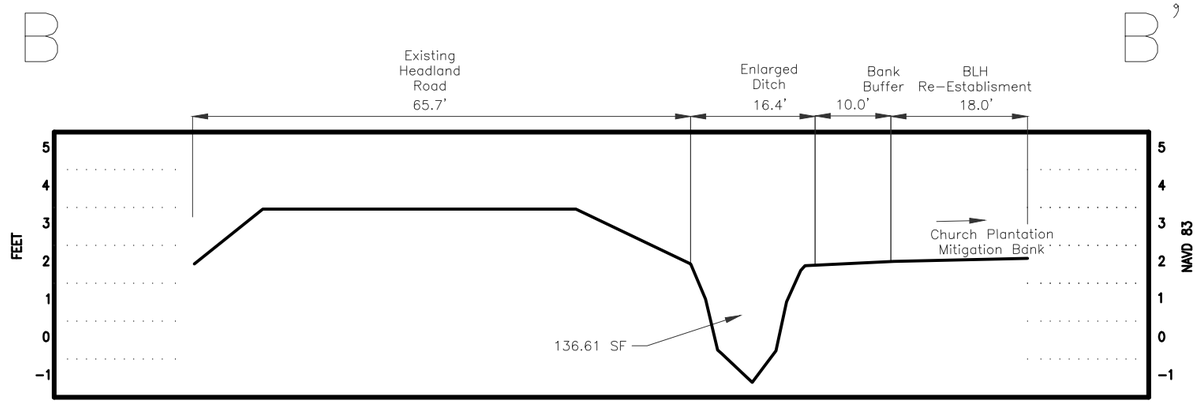
PRE–CONSTRUCTION SECTION



PROPOSED CUT
3,214 Cu. Yds.

PROPOSED FILL
3,214 Cu. Yds.

POST–CONSTRUCTION SECTION



Basis of Elevations:
The elevations shown hereon are based on the "North American Vertical Datum
of 1988 – NAVD 88" (Geoid 12b) using GPS C4Gnet–RTN System accessed on August 19, 2021.

FIGURE 9-3
PROFILES NOT TO SCALE

N Slope

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LAND SURVEYING, LLC
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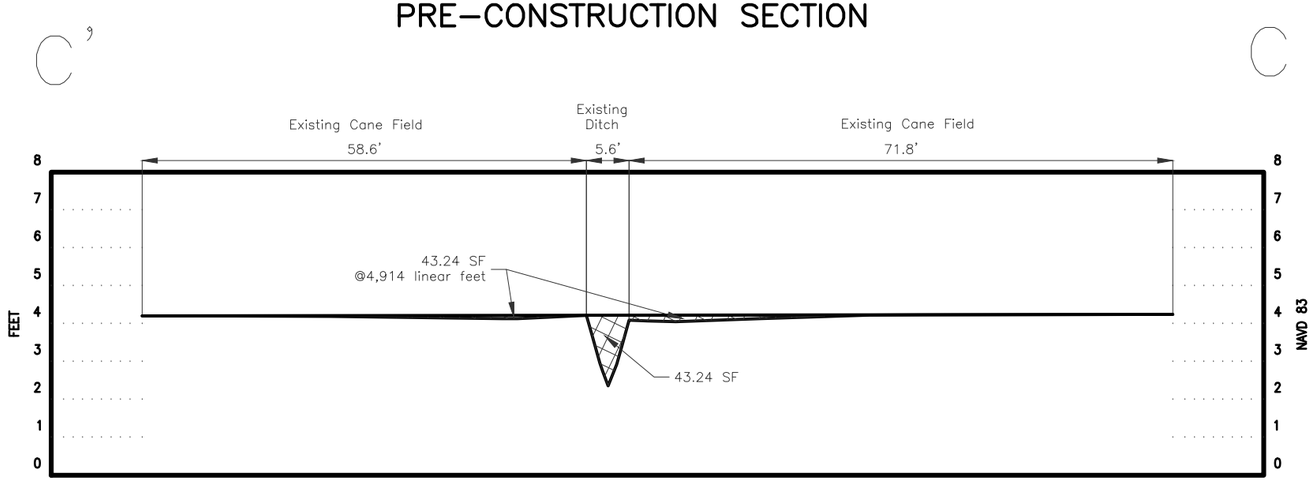
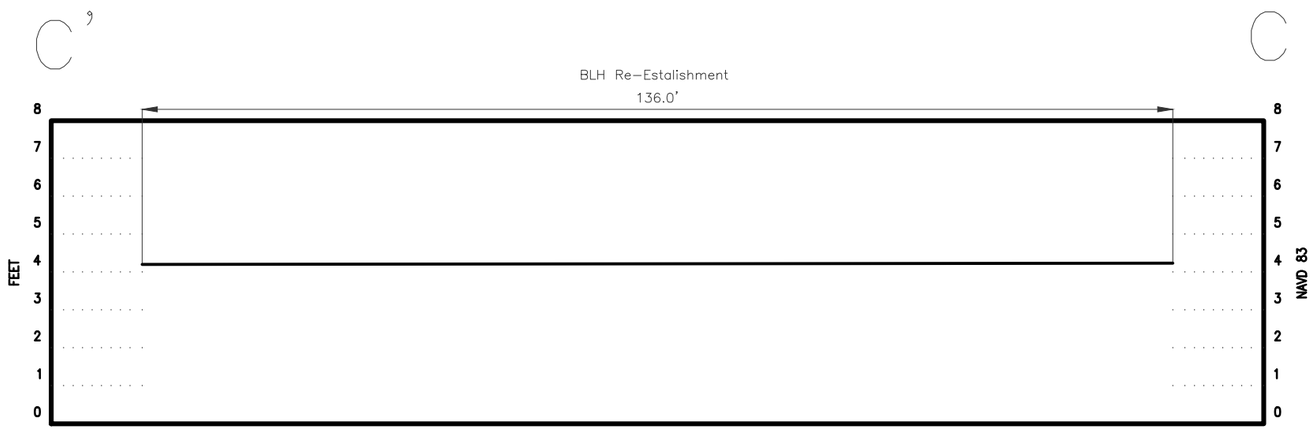
EMAIL • ACADIA@ACADIALANDSURVEYING.COM

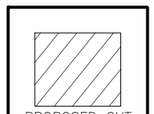
ALS FILE: 2021/21–01–478/21–478s Cross Section Details.DWG

PRE–CONSTRUCTION SECTION



POST–CONSTRUCTION SECTION





Basis of Elevations:
The elevations shown hereon are based on the "North American Vertical Datum
of 1988 – NAVD 88" (Geoid 12b) using GPS C4Gnet–RTN System accessed on August 19, 2021.

FIGURE 9-6
PROFILES NOT TO SCALE

N Slope

ACADIA
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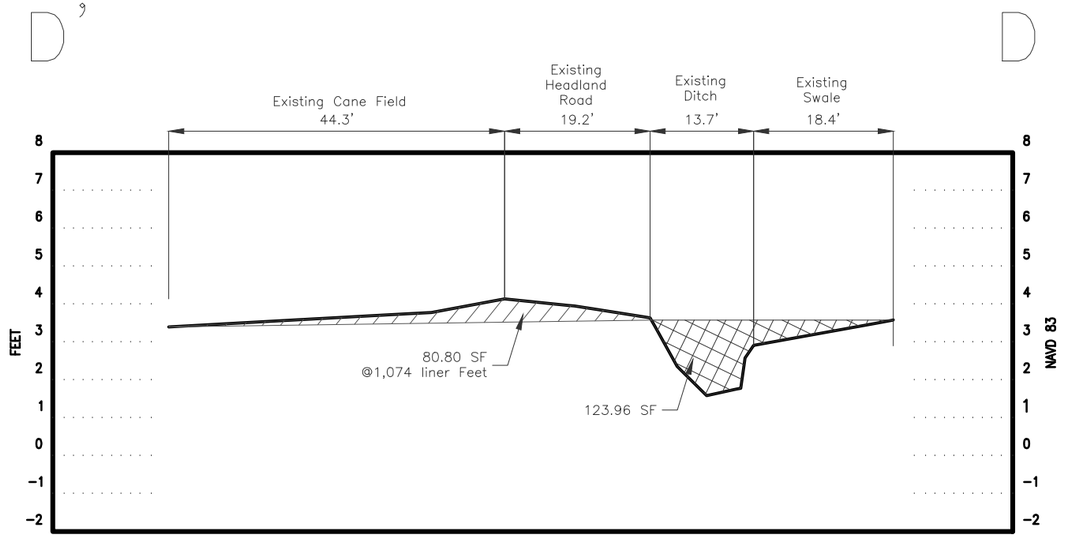
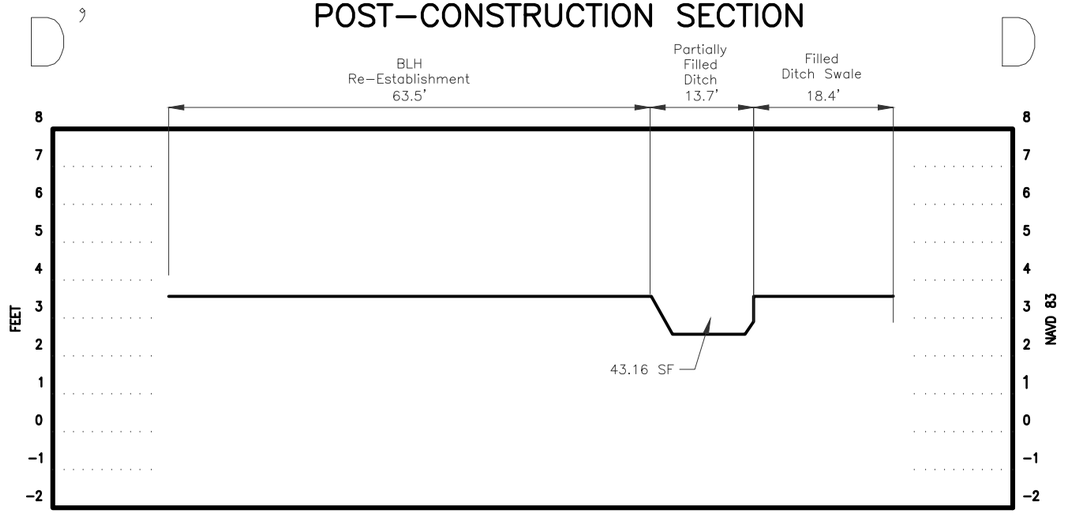
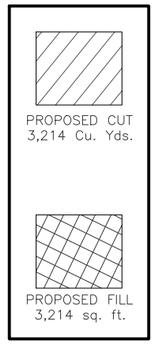
ALS FILE: 2021/21–01–478/21–478s Cross Section Details.DWG

PRE–CONSTRUCTION SECTION



POST–CONSTRUCTION SECTION





Basis of Elevations:
The elevations shown hereon are based on the "North American Vertical Datum
of 1988 – NAVD 88" (Geoid 12b) using GPS C4Gnet–RTN System accessed on August 19, 2021.

FIGURE 9-4
PROFILES NOT TO SCALE

N

Slope

ACADIA
LAND SURVEYING, LLC
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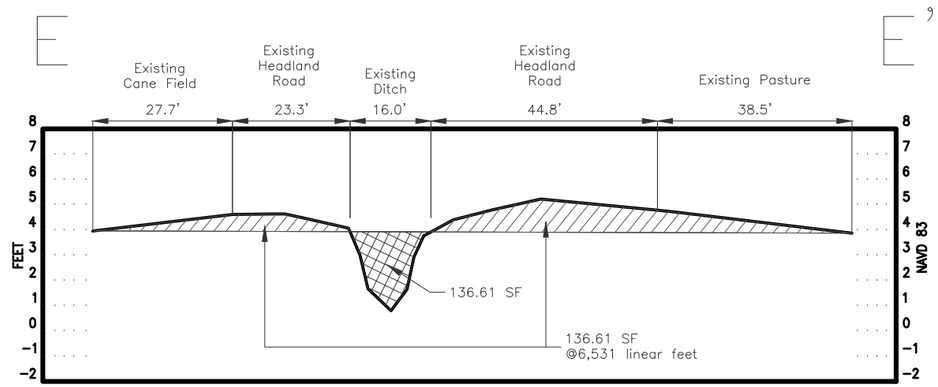
Phone • (985) 449-0094 Fax • (985) 449-0095
EMAIL • ACADIA@ACADIALANDSURVEYING.COM

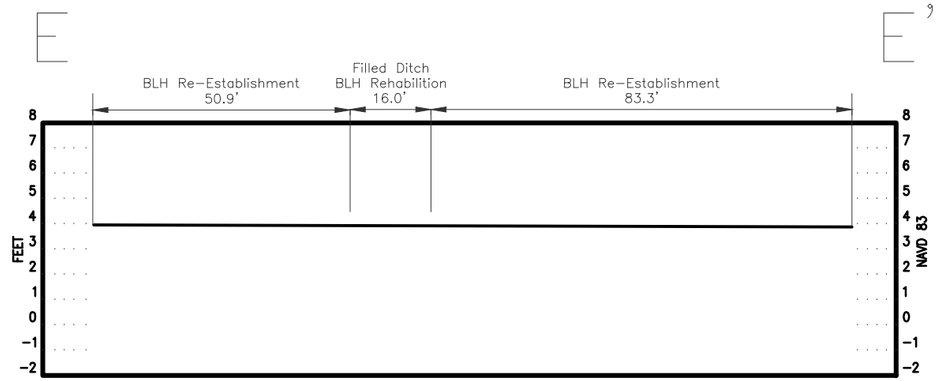
PRE–CONSTRUCTION SECTION



PROPOSED CUT
33,044 Cu. Yds.

PROPOSED FILL
33,044 Cu. Yds.

POST–CONSTRUCTION SECTION



Basis of Elevations:
The elevations shown hereon are based on the "North American Vertical Datum
of 1988 – NAVD 88" (Geoid 12b) using GPS C4Gnet–RTN System accessed on August 19, 2021.

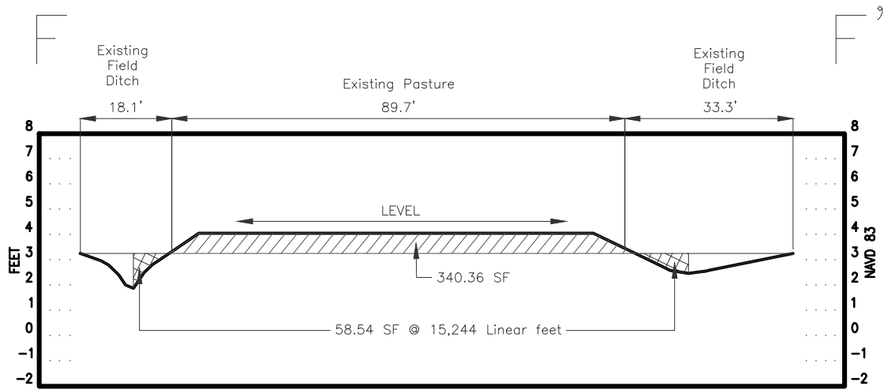
FIGURE 9-5
PROFILES NOT TO SCALE

N

Slope

ACADIA
LAND SURVEYING, LLC
ALABAMA • LOUISIANA • MISSISSIPPI • TEXAS
308 EAST 2ND STREET, THIBODAUX, LOUISIANA 70301
Phone • (985) 449-0084 Fax • (985) 449-0085
EMAIL • ACADIA@ACADIALANDSURVEYING.COM

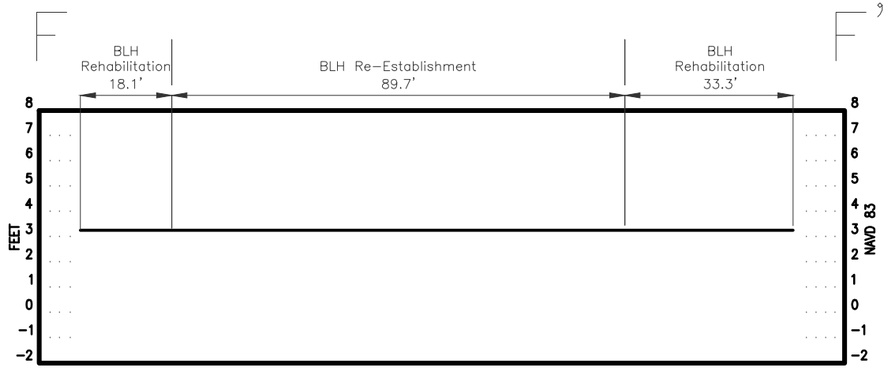
PRE–CONSTRUCTION SECTION



PROPOSED CUT
33,051 Cu. Yds.

PROPOSED FILL
33,051 Cu. Yds.

POST–CONSTRUCTION SECTION



Basis of Elevations:
The elevations shown hereon are based on the "North American Vertical Datum
of 1988 – NAVD 88" (Geoid 12b) using GPS C4Gnet–RTN System accessed on August 19, 2021.

FIGURE 9-7
PROFILES NOT TO SCALE

N Slope

ACADIA
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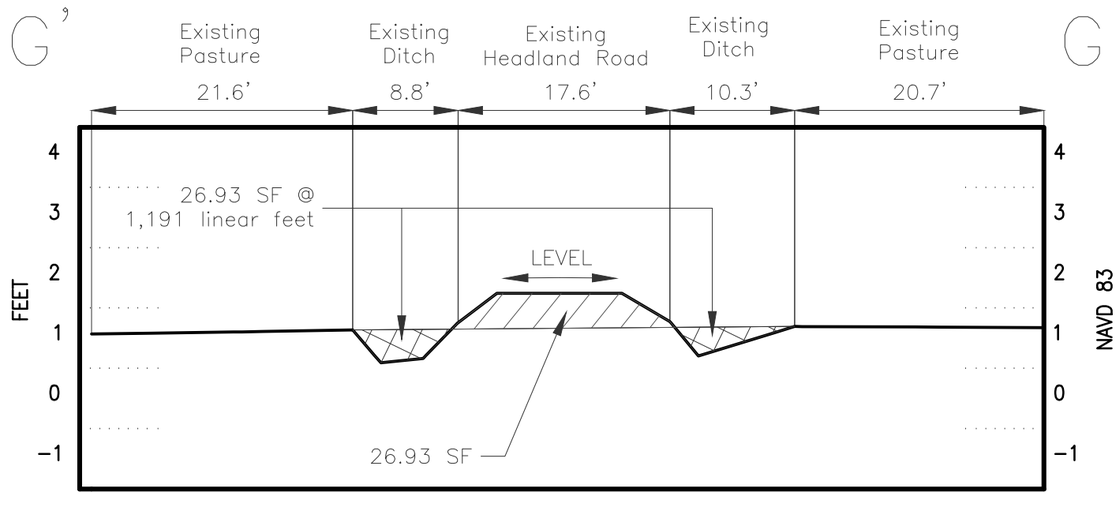
EMAIL • ACADIA@ACADIALANDSURVEYING.COM

PRE–CONSTRUCTION SECTION



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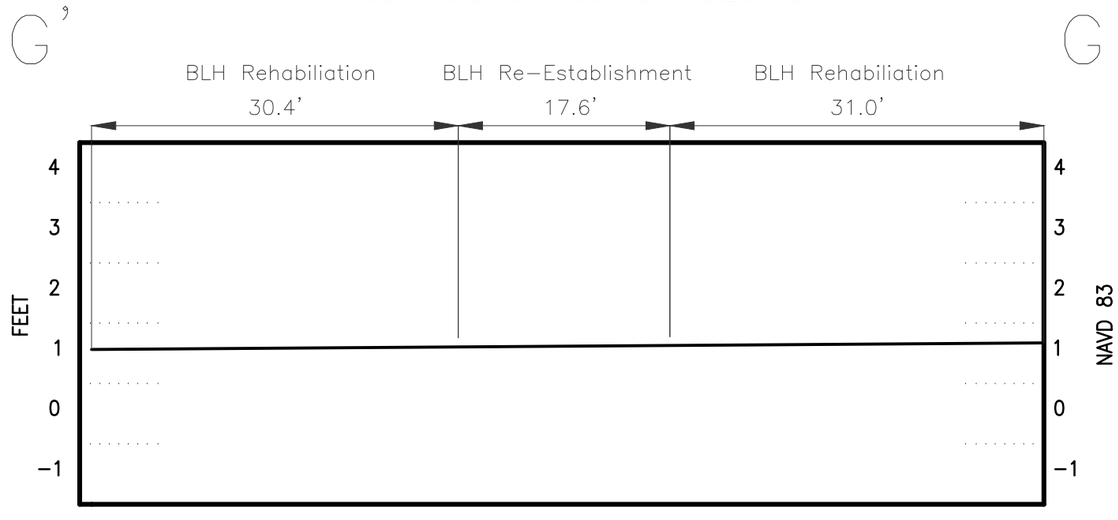

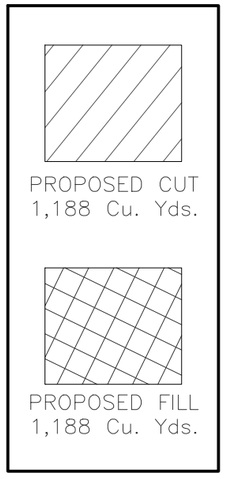

Basis of Elevations:
The elevations shown hereon are based on the "North American Vertical Datum of 1988 – NAVD 88" (Geoid 12b) using GPS C4Gnet–RTN System accessed on August 19, 2021.

FIGURE 9-9
PROFILES NOT TO SCALE

N

Slope

ACADIA
LAND SURVEYING, LLC
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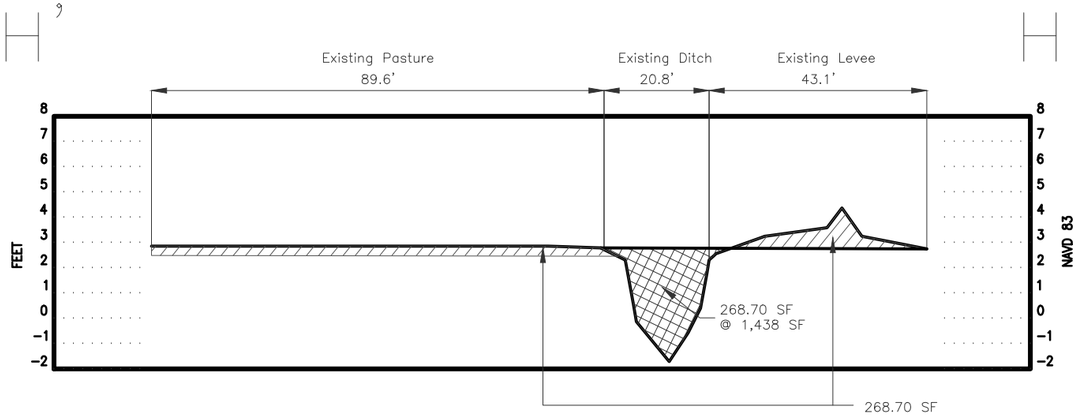
Phone • (985) 449-0094 Fax • (985) 449-0095
EMAIL • ACADIA@ACADIALANDSURVEYING.COM

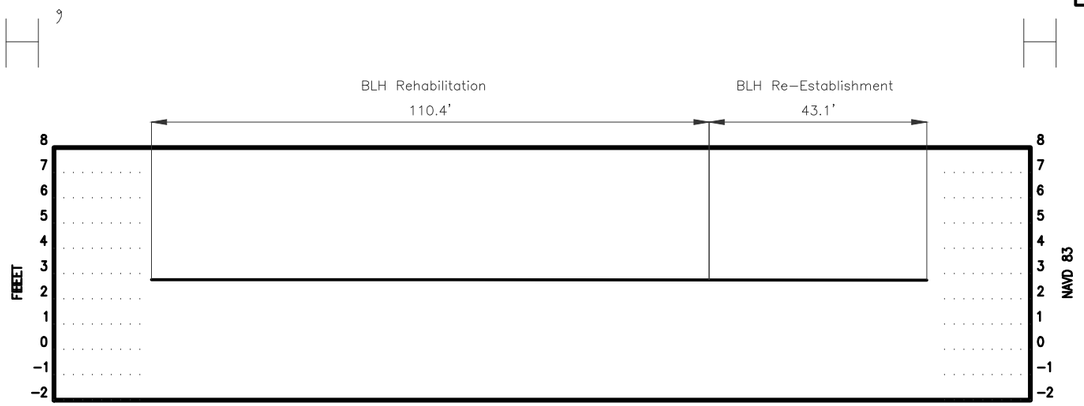
PRE–CONSTRUCTION SECTION



PROPOSED CUT
14,311 Cu. Yds.

PROPOSED FILL
14,311 Cu. Yds.

POST–CONSTRUCTION SECTION



Basis of Elevations:
The elevations shown hereon are based on the "North American Vertical Datum
of 1988 – NAVD 88" (Geoid 12b) using GPS C4Gnet–RTN System accessed on August 19, 2021.

FIGURE 9-10
PROFILES NOT TO SCALE

N

Slope

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ALABAMA • LOUISIANA • MISSISSIPPI • TEXAS
206 EAST 2ND STREET, THIBODAUX, LOUISIANA 70301
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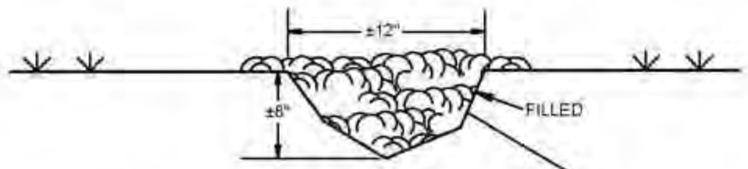
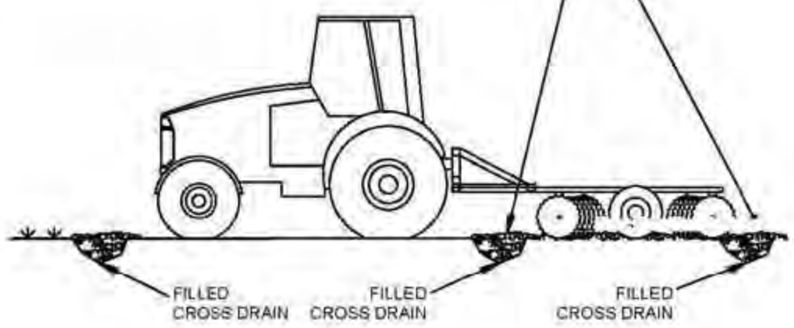
EMAIL • ACADIA@ACADIALANDSURVEYING.COM

ALS FILE: 2021/21–01–478/21–478s Cross Section Details.DWG

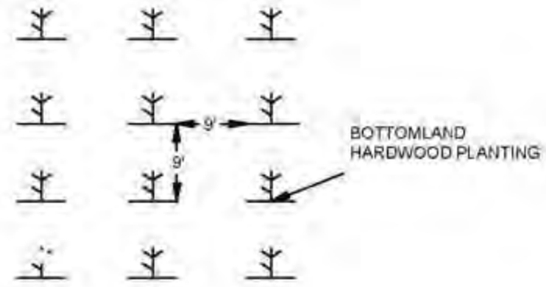
TYPICAL FIELD CROSS DRAIN
NOT TO SCALE



TYPICAL FIELD CROSS DRAIN
NOT TO SCALE



ALL SITES PLANTED ON TYPICAL 9X9 SPACING
NOT TO SCALE



Total Cut Volume: 110,757 CY
Total Fill Volume: 110,757 CY
Total Cut Acreage Non Jurisdictional: 60.5 acres
Total Cut Acreage Jurisdictional: 48.5 acres
Total Cut Acreage: 107.6 acres
Total Fill Acreage Non Jurisdictional: 0.0 acres
Total Fill Acreage Jurisdictional: 7.6 acres
Total Fill Acreage: 7.6 acres

Figure 9-11

Basis of Elevations:
The elevations shown hereon are based on the "North American Vertical Datum of 1988 – NAVD 88" (Geoid 12a) using GPS C4Gnet–RTN System accessed on June 13, 2016.

PROFILES NOT TO SCALE

Note: Permittee shall contact the Louisiana One Call at 1-800-272-3020 forty-eight hours prior to excavation or demolition.

ACADIA
LAND SURVEYING, LLC
LOUISIANA • MISSISSIPPI • TEXAS

ALS FILE: 2015/15-274S/15-274S1(sheet 7).DWG