JOINT PUBLIC NOTICE

December 16, 2019

United States Army
Corps of Engineers
New Orleans District
Regulatory Branch
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Permit Application Number
MVN-2017-00925-MD

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Department of Environmental Quality
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Project Manager
Elizabeth Hill
WQC Application Number
WQC # 191208-01

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).

Application has also been made to the Louisiana Department of Environmental Quality, for a Water Quality Certification (WQC) in accordance with statutory authority contained in Louisiana Revised Statutes of 1950, Title 30, Chapter 11, Part IV, Section 2074 A(3) and provisions of Section 401 of the Clean Water Act (P.L.95-17).

PLAUCHÉ MITIGATION BANK IN AVOYELLES PARISH

NAME OF APPLICANT: Warren Plauché; Care of: Coastal Environments, Inc.; Attention: Ed Fike; 1260 Main Street; Baton Rouge, Louisiana 70802.

LOCATION OF WORK: The 145.8-acre site is located approximately 0.6 miles north of Plaucheville, Louisiana, in Avoyelles Parish as shown on the attached drawings (Latitude: 30.975128° N, Longitude:–91.986064° W). The Project is located within the Bayou Teche Watershed, Hydrologic Unit 08080102.

CHARACTER OF WORK: Approximately 142 acres of the site currently consist of open fallow agricultural land that was last farmed in 2018. Soybeans have most recently been the predominant crop and vegetative cover on the proposed bank site, as well as on adjacent and nearby agricultural lands. Proposed activities include excavation and removal or abandonment of five existing culverts, plugging/backfilling existing agricultural drainage ditches, excavation of a new ditch, land grading and leveling, ripping and backfilling of trenches for planting bare-rooted seedlings, and control of invasive species. Approximately 138.7 acres of the site will be planted with bottomland hardwood seedlings, and 0.9 acres of existing bottomland hardwood forest will be preserved under the subject conservation servitude. All work is being done for the purpose of constructing a wetland mitigation bank.

The comment period for the Department of the Army Permit and the Louisiana Department of Environmental Quality WQC will close **30 days** from the date of this joint 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 and/or this WQC request and must be mailed so as to be received before or by the last day of the comment period. Letters concerning the Corps of Engineers permit application must reference the applicant's name and the Permit Application Number, and be mailed to the Corps of Engineers at the address above, ATTENTION: REGULATORY BRANCH. Similar letters concerning the Water Quality Certification must reference the applicant's name and the WQC Application Number and be mailed to the Louisiana Department of Environmental Quality at the address above.

The application for this proposed project is on file with the Louisiana Department of Environmental Quality and may be examined during weekdays between 8:00 a.m. and 4:30 p.m. Copies may be obtained upon payment of costs of reproduction.

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.

The New Orleans District is unaware of properties listed on the National Register of Historic Places near the proposed work. The possibility exists that the proposed work may damage or destroy presently unknown archeological, scientific, prehistorical, historical sites, or data. Issuance of this public notice solicits input from the State Archeologist and State Historic Preservation Officer regarding potential impacts to cultural resources. After receipt of comments from this public notice the Corps will evaluate potential impacts and consult with the State Historic Preservation Officer and Native American Tribes in accordance with Section 106 of the national Historic Preservation Act, as appropriate.

Our initial finding is that the proposed work would neither affect any species listed as endangered, nor affect any habitat designated as critical to the survival and recovery of any endangered species listed by the U.S. Department of Commerce.

Utilizing Standard Local Operating Procedures for Endangered Species in Louisiana (SLOPES), dated October 22, 2014, between the U.S. Army Corps of Engineers, New Orleans and U.S. Fish and Wildlife Service, Ecological Services Office, the Corps has determined that the proposed activity would have no effect on any species listed as threatened or endangered by the U.S. Department of the Interior.

This notice initiates the Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. The applicant's proposal would result in the destruction or alteration of N/A acre(s) 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 Department of Environmental Quality, before a permit is issued.

Any person may request, 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.

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

for

Martin S. Mayer
Chief, Regulatory Branch

Enclosure

Prospectus for the Proposed Plauche´ Mitigation Bank MVN-2017-00925-1-SR

Avoyelles Parish, Louisiana

March 8, 2019

Sponsor:
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Agent:
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1. Introduction

This prospectus was prepared in support of the proposed Plauche´ Mitigation Bank (PMB). Coastal Environments, Inc. (CEI) submitted the draft prospectus to the U. S. Army Corps of Engineers, New Orleans District (CEMVN), who in turn distributed it the Interagency Review Team (IRT) in the early summer of 2017. The mostly positive feedback for the draft prospectus from the IRT helped determine that the PMB is a feasible project. Information not included in the draft prospectus, including a Jurisdictional Determination (JD) from the CEMVN, a Section 404 permit application, revised maps (Figures 1 – 9), five new appendices (Appendices B – F) and additional supporting information, are contained herein.

The footprint of the PMB contains a total of approximately 145.8 acres (ac), consisting of 139.6 ac of mitigation credit ac and 6.2 ac of non-mitigation credit ac. Dr. Warren Plauche´, landowner and Mitigation Bank Sponsor (Sponsor), has proposed to re-establish a portion of the lower agricultural lands, totaling approximately 138.7 ac, into a bottomland hardwood forest and preserve parts of two existing mature bottomland hardwood habitats that contain a total of 0.9 ac.

The project also features the afforestation of four tracts, adjacent to the PMB that are owned by Dr. Plauche´ that are identified as Non-Bank Areas A through D, that will add forested buffer to the bank. Other additional contiguous tracts of cleared agricultural land and containing hydric soils currently owned by others may be acquired in the future and included as Phase II of the PMB.

The purpose of the afforestation project is to create a mitigation bank that will provide available compensatory wetland mitigation credits for projects which impact bottomland hardwood wetlands. Restoring forest habitat is also a preferable use of the land compared to leasing it for crop and/or livestock production.

1.1 Site Location

The proposed mitigation bank site, consisting of a large irregular-shaped tract, lies north of LA HWY 107 and west of LA HWY 1181, approximately 0.6 miles north of where the two highways intersect in the village of Plaucheville in Avoyelles Parish, LA. This small unincorporated community is approximately 22.3 miles (through Bunkie, LA) east of Exit 53 on Interstate 49 (Figure 1). The PMB lies south of the Plaucheville–Cottonport Drainage Canal (locally known as "the canal" and also identified as L-19) which was initially dredged to facilitate regional drainage; but its name is misleading because it flows in a westerly direction from the Cottonport area through Plaucheville (Plauche´ per. comm. 2019). Additional information regarding the drainage canal is included in Sections 3.1.1 and 4.2 of this document.

More formally described, the PMB is located in Sections 8 and 17, T-1-S, R-5-E. The approximate center of the PMB is located at latitude 30.975128 and longitude -91.986064 Decimal Degrees (Figures 1 and 2).

The PMB is located in the upper Bayou Teche Basin (Hydrologic Unit Code [HUC] 08080102) of the Lower Mississippi River Alluvial Plain, but not in Louisiana's Coastal Zone nor within the boundaries of the Coastal Wetlands Conservation Plan.

This tract is currently designated as an agricultural unit by the U. S. Department of Agriculture (USDA), Farm Service Agency; however, the farming lease agreement expired on December 31, 2018, and was not, nor will be, renewed. A copy of said lease agreement is included in Appendix A. The creation of the proposed mitigation bank would allow the landowner to restore the original bottomland hardwood habitat to the property that has been farmed for the past six or so years and, before that, used as pastureland since the middle portion of the last century.

The tract does not contain any oil, gas or product pipelines, active or former oil or gas wells, former well locations or electrical ROW servitudes. The one single-circuit aerial electrical line that traverses the PMB will remain within the bank as non-credit and non-planted acreage with a width of 40 ft. As the mitigation plan is currently proposed, the existing north-south unimproved access road and east-west powerline corridor will provide access to/through the PMB. A small strip of out acreage has been withheld for a possible secondary access road that may, at some point, be added south of, and adjacent to, the bank's southeastern boundary. The strip abuts the extreme southwestern portion of Non-Bank Area C.

2. Project Goals and Objectives

The proposed mitigation bank objectives are to re-establish, preserve and provide long-term protection to approximately 139.6 ac of bottomland hardwood habitat in the upper Bayou Teche Basin of the Lower Mississippi Alluvial Plain. Agricultural areas that were in soybean production will be restored into functioning forested wetlands by slight hydrologic and topographic modifications and the planting of mixed bottomland hardwood tree seedlings. The restoration of native forest habitat on this tract will enhance the wetland value of the re-established and adjacent bottomland hardwood communities by increasing the contiguous acreage. The goal of the bank is to convert the existing agricultural land into a productive forested wetland that will complement the current vegetation and hydrology of forested land that bounds the Plaucheville-Cottonport Drainage Canal including the adjacent CRP areas to the northwest and north.

During the last seven years when the property was leased for agricultural use, the Sponsor experienced runoff and airborne contamination from aerial and surface herbicide/ insecticide applications. The runoff affected the trees, lawns and adjacent waterways adjacent and near the leased farm tract (Plauche' per. comm. 2017). By not extending the farm lease and restoring the previously farmed area to a bottomland hardwood forest, the wetland acreage would provide habitat for wildlife as well as provide a number of well-documented wetland functions and values such as flood storage and filtration/attenuation services. The potential for an increase of biodiversity is also an objective with the additional wildlife habitat that will be re-established. Hard mast plants will produce food for small and large mammals as well as a wide variety of avian species including Neotropical migratory birds.

3. Ecological Suitability of the Site/Baseline Conditions

The proposed mitigation bank is adjacent to approximately 465+ ac of forestlands which consist of bottomland hardwoods (Figure 6). The adjacent forest includes two USDA, Natural Resource Conservation Service's (NRCS) Conservation Reserve Program (CRP) designated tracts which are located to the northwest and north of the PMB. Because the two CRP tracts and two non-CRP forested wetland tracts to the north and north have similar topography and share the same soil type as the PMB, the physical site and soil characteristics are comparable. In support of the preceding statement, the CRP located north of the tract, just east of the PMB northern preservation tract, was included in the wetland delineation investigation as Data Plot 3. Consisting of an overstory of mature sugarberry (*Celtis laevigata*), green ash (*Fraxinus pennsylvanica*), bitter pecan (*Carya aquatica*) and water oak (*Quercus nigra*); a sapling stratum of the same tree species, less and except, water oak and with hydric soil and hydrology, the data plot as well as surrounding habitat were determined to be wetlands.

With the hydrological and vegetative modifications to the existing agricultural land put into effect, the proposed mitigation bank should after a short period of time exhibit the same/similar wetland characteristics of the surrounding bottomland hardwood forest. In addition, the property connects to several forested drainage corridors running to the southwest and northeast that connect to Bayou Choupique which has forested riparian banks along LA HWYS 107 and 1184 and to additional non-CRP, existing forested areas to the west, south and north.

Existing crawfish and fish ponds, located in the northeast portion of the property, north of the Plaucheville-Cottonport Drainage Canal, are not part of the proposed bank. The crawfish pond, initially proposed to be converted into a cypress forest as part of the PMB, will instead be planted with fewer cypress trees and continued to be managed for crawfish and waterfowl production. Both ponds were determined by the CEMVN to contain non-jurisdictional features (Appendix E). Even though the two ponds and four other cited outparcels, owned by the

Sponsor, will not be formal components of the PMB, all will add buffer and habitat diversity to the bank site.

3.1 Land Use

3.1.1 Historical Land Use the logging history

Historically, the location of the proposed mitigation bank was an overflow area or floodplain of the Mississippi and Red Rivers prior to the creation of guide levees after the Great Mississippi River Flood of 1927. The flood waters of these rivers along with the Atchafalaya historically deposited sediment in the region when the natural levees were overtopped during high water events. The project area was wooded before it was cleared in the 1940s and 1950s (Plauche´ per. comm. 2017). After the land was cleared, it was used to produce cattle for decades until it was utilized for hay production between 2005 and 2012 (Plauche´ per comm. 2019). Soybeans were the sole crop produced during the time a farming lease was in effect from 2012 to 2018 (Plauche´ per. comm. 2017). Prior to being converted to agricultural land, the project area was likely used for market and recreational hunting, possibly trapping and the harvest of forest products; however, the Sponsor had no information on the logging history of the property. The bank location was likely comprised of tree species similar to the surrounding forested CRP and non-CRP areas.

Review of the 1952 USDA aerial photograph indicates that all of the western portion of the property, south of Plaucheville-Cottonport Drainage Canal and the portion of the bank west of the PMB access road were wooded in what appeared to be small timber. All of the property east of the road was cleared and in pasture. Both sides of the PMB were cleared and in pasture by 1965. Both photos clearly depict the Plaucheville-Cottonport Drainage Canal and its extended network of linear drainage laterals.

Queries with the Louisiana Department of Natural Resources (LDNR) Strategic Online Resources Online System (SONRIS) resulted in the identification of one oil and gas well in the general vicinity of the PMB, but it is located to the southeast of the PMB on the opposite side of LA HWY 1181 in Sec. 17, T-1-S, T-5-E. The well was drilled and plugged and abandoned in 1948. No wells have been drilled in either Sec. 8 or Sec. 17, T-1-S, R-5-E, since that date.

3.1.2 Existing/Current Land Use

Approximately 142 ac (and 139.6 ac of the mitigation-credit portion of the PMB) currently consists of open fallow agricultural land that was last farmed in 2018. Located in two small areas within the boundaries of the property and proposed bank, the remainder of the credit portion of the bank includes 0.9 ac of existing mature bottomland hardwood trees. An existing unimproved road with a south to north alignment provides access to, and through, the PMB. A small aerial

distribution line conveys electricity in an east-west direction from LA HWY 1184 to the access road, where it turns and proceeds along the road, leaving the bank site and crossing the Plaucheville-Cottonport Drainage Canal. The Sponsor currently uses the western portion of the PMB for recreational dove hunting each fall (Plauche´ per. comm. 2017). The proposed mitigation bank is adjacent to approximately 465+ ac of forestlands consisting of bottomland hardwoods (Figure 6). This forested area includes the two previously identified CRP tracts which are located to the northwest and north of the PMB. In addition, the adjacent properties connect to several forested drainage corridors running to the southwest and northeast that connect to Bayou Choupique which has forested riparian banks along LA HWYS 107 and 1184 and to additional non-CRP forested areas to the west, south and north.

Soybeans have most recently been the predominant crop and vegetative cover on the PMB and adjacent and nearby agricultural lands. One small crawfish and one small fish pond, both owned by the Sponsor, are located north of the Plaucheville-Cottonport Drainage Canal. Crawfish were produced commercially on a small scale for a year or so, but that practice was terminated several years ago (Plauche´ per. comm. 2019). Both ponds are used recreationally by the Sponsor, his family and invited guests at the current time as well as into the foreseeable future (Plauche´ per. comm. 2019). Current hydrology consists of naturally-contoured drainage into a series of drainage ditches and culverts that direct drainage in northerly and western directions into the Plaucheville-Cottonport Drainage Canal.

Surrounding land and use around the PMB includes: (1) agriculture - crops and livestock; (2) forests – conservation, private recreation and typical bottomland hardwood wetland functions including water and air attenuation, flood storage and wildlife diversity, habitat and forage and (3) further to the east and south, the Village of Plaucheville, consisting mostly of single-family residences that are interspersed with two schools, church, fire department and a few businesses (Google Earth, 2019).

3.2 Soils

Based on USDA NRCS published data, all of the soils within the PMB, as currently proposed, were initially found to consist of Moreland clay, 0 to 1 percent slopes, rarely flooded (Moreland rfl) (USDA, NRCS 2017 and 2019a and Latanier clay soils, 0 to 1 percent slopes, rarely flooded (Latanier rfl). Moreland comprises +/- 90 percent of the PMB's soil while Latanier makes up +/- 10 percent of the bank's soils (Figure 7). Both clay soils' water table lowers to the soils' lower limits of 0 to 2 ft in depth during the same time of the year (USDA, NRCS 2017). Moreland rfl and Latanier rfl are depicted as being non-hydric in the *Custom Soil Resource Report for Avoyelles Parish, LA Plauche Mitigation Bank* as non-hydric soils (USDA, NRCS 2017, 2019a).

Because the two soils were initially understood to be "rarely flooded" (USDA 2017 and 2019a) in 2017, further inquiries were made to determine if these soils were suitable as potential hydric soils for the proposed bank. Mark Laborde, NRCS Avoyelles Parish Service Center, and Rosie Schwamenfeld, CEMVN Lafayette Office, were interviewed about both soils. Mr. Laborde and Ms. Schwamenfeld explained that the Moreland and Latanier soils were "problematic" soils and fell under the 4W designation which are wetland soils. During the site visit, several soil samples were dug on the property to look at the chroma which found the majority of the soils to be 7.5YR4/4 from red parent material. In separate discussions, the agency representatives mentioned that this chroma is a hydric soil designation. Because the soils have hydric soil chroma and topographic and hydrologic modifications are proposed, the soils on the proposed bank would become further hydric, comparable to the adjacent wetland area soils.

At some point, both of these soils were reclassified Moreland clay, 0 to 1 percent slopes, frequently flooded (ffl) and Latanier clay soils, 0 to 1 percent slopes, occasionally flooded (ofl) (USDA, NRCS 2019b).

According to the Sponsor, the soils on the property are generally saturated, especially along the center and southern portions of the property, with periodic episodes of surface inundation after heavy rain events throughout the year (Plauche' per. comm. 2017). In support of the landowner's observations, the two soils (Moreland ffl and Latanier ofl) that comprise the agricultural land within the bank are saturated at the surface from December to April.

A map of the project and adjacent area soils is depicted in Figure 7 and a copy of the *Custom Soil Resource Report for Avoyelles Parish, LA Plauche Mitigation Bank* is included in Appendix B (USDA, NRCS 2019a). The renaming of the two soils would seemingly indicate the acknowledgment of wetter soil conditions.

Please note that the Hydric Ratings on Moreland ffl and Latanier ofl soils are included in the Excerpted Soil Data Access (SDA) Hydric Soils List, Avoyelles Parish, LA (Appendix B) (USDA, NRCS 2019b). The Hydric Rating (percentage of the component of the map unit) of each of these newly designated soils is 87 and 90, respectively (USDA, NRCS 2019b).

3.3 Hydrology

3.3.1 Contributing Watershed

The proposed PMB is physically located in the northeastern portion of the Bayou Teche Watershed (Hydrologic Unit Code [HUC] 08080102; 2,210 sq mi). The Bayou Teche along with a second watershed, the Vermilion (HUC 08080103; 1,760 sq mi) comprise the Vermilion-Teche Watershed Basin (Figure 9). The

Vermilion-Teche Basin is one of the eight watershed basins that the CEMVN has designated for the use of establishment and sale of mitigation credits.

3.3.2 Historical Hydrology and Drainage Patterns

The natural setting of the proposed PMB and surrounding lands lacked the topography and natural drainage features that likely prohibited much of it from being cleared during the same time other lands were being cleared for agricultural use (Plauche´ per. comm. 2019). The Plaucheville-Cottonport Drainage Canal was initially dredged for the purpose of improving drainage of the Cottonport area (Plauche´ per. comm. 2019). Said canal drains into Bayou Choupique, which in turn terminates at its confluence with the Bayou Des Glaises Diversion Channel. The diversion channel was created as the result of the construction of the West Floodway Protection Levee of the Atchafalaya Floodway.

Review of historic aerial photographs (USDA, 1941, 1951, 1959 and 1968) and quadrangle maps (USGS, 1968 and War Department, 1935, 1940, 1955 and 1970) indicates that the waterway has been maintained since 1941, possibly earlier. Spoil material, related to maintenance dredging of the Plaucheville-Cottonport Drainage Canal, is clearly visible on both sides of the waterway in the 1941 and 1951 photographs. By 1951, laterals have been dredged along the drainage canal including several that are located within the PMB. The spoil bank on the south side of the drainage canal is much wider by 1959 and depicts either a well-maintained spoil bank or recent maintenance.

Poor drainage on the proposed bank site is further evidenced by the large number of ditches excavated on the property when it was used as pasture in the late 90s and early 00s as documented in Google Earth aerial imagery. Most of these ditches have since filled in naturally (Plauche´ per. comm. 2019). According to later Google Earth imagery, the current unimproved, north-south access road that provides a travel route through the PMB and associated parallel ditch, located south of said road's crossing location and to be backfilled for conversion to bank credit acreage, were installed after May of 2012. This measure was put into effect as a means of relocating the previously existing road, located further to the east, that at that time provided similar, but angled access through the property. The access road was relocated by the Sponsor for the purpose of making the tract easier for the new leaseholder to farm.

3.3.3 Existing/Current Hydrology and Drainage Patterns

Depending on location on the property, surface water flows through the PMB to the northwest, north and west by way of natural low areas; some of which were ditched to facilitate better drainage into the Plaucheville-Cottonport Drainage Canal. There are five existing outlets through the spoil bank on the south side of

the canal that accommodate drainage from the PMB and adjacent lands. All of these outlets would remain open.

Backwater flooding of the existing drainage ditches and low areas allow for water to accumulate in the mid portion of the property. This condition was documented through photographs taken by a drone and included in Appendix C. The ditches accommodate rising water levels during extreme high-water events and eventually drain the property after several hours (Plauche´ per. comm. 2017). The average annual precipitation for the area is 58.74 inches. The Mississippi River Alluvial Aquifer, a source of groundwater for Avoyelles Parish, underlies the proposed mitigation bank.

Currently, the proposed mitigation area drains through a series of ditches and culverts that were installed for the purpose of improving drainage to enhance agricultural productivity. These drainage improvements collect and direct water into three active and two remnant ditches that cross the northern boundary of the PMB wherein drainage is routed into the Plaucheville-Cottonport Drainage Canal via five outlets. Figures 3 and 5 illustrate existing topography, ditches and drainage at the site. Figure 4 shows the effects of the proposed measures which include land leveling and restoring existing ditches to surrounding elevations.

3.3.4 Jurisdictional Wetlands

The CEMVN Issued the Jurisdictional Determination (JD) on a 203-ac portion of land, owned by the Sponsor on November 19, 2018, a copy of which is included in Appendix D. The JD included the proposed mitigation bank site and nearby crawfish and fish ponds, the former of which was an initial component of the proposed bank.

Approximately 2.23 ac of emergent wetlands, identified in the JD, were associated with the low areas and remnant natural drains and the ditches that were constructed in them to further effect drainage.

The crawfish pond was withdrawn from the proposed bank and along with the fish pond were determined to be non-jurisdictional features. The independently planned enlargement of the fish pond will be the source of all additional fill material required to complete the PMB.

3.4 Vegetation

3.4.1 Historical Plant Community

It is reasonable to assume that the stands of timber that occupied the PMB during the past few centuries were similar in species and composition as existing timberlands adjacent to the PMB. Larger bottomland hardwood trees immediately adjacent to, and west of, the northern portion of the west side of the

proposed bank include the following species: American elm (*Ulmus americana*), water oak, nutall oak (*Quercus texcana*), honey locust (*Gleditsia triacanthos*), green ash, sugarberry, bitter pecan and sweetgum (*Liquidambar styraciflua*).

3.4.2 Existing Plant Community

When the wetland delineation was conducted in 2017, the cleared portion of the proposed bank was planted in soybeans (*Glycine max*). Other species of emergent vegetation observed include: barnyard grass (*Echinochioa crus-galli*), pyramid flower (*Melochia pyramidata*), flatsedge sharpscale (*Cyperus oxylepis*), muhly grass hairawn (*Muhlenbergia capillaris*), browntop millet (*Urochloa ramosa*), rattlebox (*Sesbania drummundi*), crabgrass (*Digiteria sanguinalis*), vacey grass (*Paspalum capillaris*), dog fennel (*Eupatorium capillifolium*), Brazilian vervain (*Verbenia brasiliensis*), Carolina Ponyfoot (*Dichondra carolinensis*), smell melon (*Cucumis melo*), dallisgrass (*Paspalum dilatatum*), Virginia buttonweed (*Diodia virginiana*), sensitive plant (*Mimosa pudica*) and dwarf palmetto (*sabal minor*).

The northern preservation area contains an overstory of mature sugarberry, green ash, bitter pecan, water oak and, less/except water oak, the understory consists of the previously cited species.

The southern preservation area was added after the wetland delineation fieldwork had been completed and the shapefiles of the property boundaries were made available by the surveyor. The small strip contains heavy timber and hydric soils. We propose to include it as part of the bank at the current time with the understanding that as with the remainder of the bank, its mitigation potential cannot be accredited until it is confirmed as a wetland through a JD and approved by the IRT.

If both or either of the preservation areas are determined to be non-wetlands, they will remain within the bank as non-credit habitat.

3.5 General Need for the Project in this Area

With increased pressure for larger agricultural production in this area and additional residential and industrial (e.g., pipelines) developments in rural areas, more bottomland hardwood systems are being cleared and developed. This area is located within the Lower Mississippi Alluvial Plain which historically experienced the greatest systematic loss of bottomland hardwood habitat in the entire United States (MacDonald et al. 1979, Stanturf et al. 2000). With the addition of the large levee system that separates rivers from their natural tributaries and associated floodplains, the natural seasonal flooding of the Mississippi, Atchafalaya and Red Rivers continues to be restricted. This has brought about drastic changes in regional and local hydrological cycles with reduced floodwater retention, substantial land use change from forested areas to

agriculture and significant loss of critical wildlife and fish habitat (Stanturf and Gardiner 2000).

Bottomland hardwood forests within the Lower Mississippi Alluvial Plain must be restored to help with flooding, attenuation of water and air quality and increased wildlife habitat. Bottomland hardwood forests are also recognized as providing: (1) the conservation of water quality, flooding reduction and natural stream recharge; (2) natural habitat and forage for native wildlife and fisheries species and (3) highly dynamic habitat resulting from aquatic deposition of particulates, nutrients and dissolved organic material (LDWF 2005). The reforestation of agricultural areas provides multiple benefits including, but are not limited to, increasing: (1) biological diversity, (2) habitat for game and non-game mammals and birds, (3) protection of aquatic resources and water quality, (4) carbon sequestration and (5) aesthetics (Stanturf and Gardiner 2000). By converting open agricultural land to bottomland hardwood forests, a positive financial, environmental, and recreational area will be obtained (Stanturf and Gardiner 2000).

Through the creation of the bank, the landowner will increase the wetland acreage, enhance local wetland functions and values, remove the harmful farming practices of point source herbicide and insecticide pollution to adjacent wildlands and waterways, and increase the potential for biological diversity of the adjacent 465-plus acres of forested areas, bottomland hardwood forest and the adjacent CRP areas by increasing its contiguous acreage. The bank will create a conservation servitude that would prevent any future development and repurposing of land in this area which would continue protection and enhancement io the two existing WRP tracts. The landowner's farming lease with Mr. Bryce Taylor expired on December 31, 2018, and will not be renewed. A copy of the lease on the subject property is included in Appendix A.

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).

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

By filling most of the ditches, removing or abandoning culverts in place and chopping, disking and leveling an unimproved farm road, natural hydrology will be largely restored. The proposed action will essentially convert a fairly efficient drainage regime into a less effective one. A map showing the potential restoration of onsite drainages is included as Figure 4 and cross-sectional drawings of the existing agricultural land, ditches and land elevations, pre- and post-construction are included as Figures 8-A through 8-F.

The topographic relief between Bayou Choupique Ridge and the Plaucheville-Cottonport Drainage Canal currently facilitates drainage in northwesterly, northerly and westerly directions through the PMB (Figures 8-D, 8-E and 8-F). No temporary or long-term active structural management requirements are needed to assure hydrologic and/or vegetative restoration. Because eliminating all of the ditches that traverse the PMB could adversely affect existing drainage for a few residential dwellings and lands along the north side of LA HWY 107, a measure is being proposed to reroute a portion of the current drainage regime through the PMB. Specifically, replacement of the southern portion of the ditch that parallels the east side of the PMB access road with the westward extension of the short existing length of east-west ditch to the existing south-north ditch should adequately accommodate the drainage (Plauche´ per. comm. 2019).

Restoring the agricultural fields to bottomland hardwood forest will require a relatively small amount of dirt work to be conducted on the property. Because the property was farmed for soybeans, there are no existing/remnant agricultural rows and furrows in the cultivated areas. The land is somewhat flat and interspersed with several areas that are slightly lower in elevation than the remainder of the PMB; most of which were previously ditched. With exceptions to the westernmost ditch and northern portion of the ditch that parallels the bank's access road, the remainder of the existing ditches within the bank will be backfilled. This process will be initiated with the disking of slightly elevated spoil banks that were placed adjacent to the new ditches during initially excavation. The disked material will be pushed into the ditches and tamped down with a backhoe bucket. Earthen material, sourced from the single new ditch that will be excavated along the southern boundary on the west side of the PMB, will be used as backfill. Earthen material needed to complete the backfilling of the ditches will be sourced from the enlargement of the non-jurisdictional fish pond (Figure 2). Sufficient fill material will be emplaced and tamped down in the ditches, bringing their elevations up to surrounding ground elevations.

One slightly elevated field road, approximately one ft higher than the adjacent field and located inside and outside of the PMB along the north boundary on the west side of the proposed bank, would be chopped, disked and graded. Of the eight existing culverts located within the bank, three (C2, C3 and C5) would remain as they are required to accommodate drainage. The remainder of the

culverts (C1, C4, C6, C7 and C8) would either be removed or abandoned in place (Figure 2).

Of the three culverts to remain, two (C3 and C5) are made of fiberglass construction. Because C1 is made of fiberglass and will no longer be needed at its current location, it will be used to replace C2 which is a corrugated metal culvert.

Regarding the use, integrity and duration of culverts constructed of fiberglass, an inquiry was made to Marc Rogers, a recently retired civil engineer. Mr. Rogers said that fiberglass culverts would be durable over a longer time period than either corrugated metal or PVC culverts. He did not know the length of time the culverts would last, but said that fiberglass would last longer than either metal or plastic culverts. After further discussion, he opined that fiberglass culverts could be expected to last a minimum of 100 years and possibly much longer. Mr. Rogers compared the culverts to a 1969 25-ft fiberglass fishing boat that he once owned. Fifty years old, it remains structurally sound and in good condition.

The existing access road that traverses the PMB will remain as non-credit bank acreage. Limestone or comparable aggregate will be added to a top width of +/- 15 ft, the length of the roadway.

Equipment to be used for the abovementioned activities include trackhoe(s), dozer(s), farm tractor(s), and dumptrucks.

4.1.2 Vegetative Work

The plant community to be established is that of a bottomland hardwood forest. All of the cleared land within the PMB to be planted with bottomland hardwood tree seedlings would be chopped and disked. Prior to the re-vegetation of the proposed mitigation bank, v-shaped shallow trenches will be ripped in the soil to ensure each seedling will have maximum likelihood of root establishment and initial survival. Ripping will also ensure the correct distances between each row of planted trees.

Depending on availability, the site will be planted with a minimum of eight species or up to eleven different tree species including: overcup oak (*Quercus lyrata*), bitter pecan (*Carya aquatica*), native pecan (*Carya illinoensis*), Western Mayhaw (*Crataegus opaca*), swamp chestnut oak (*Quercus michauxii*), willow oak (*Quercus phellos*), water oak (*Quercus nigra*), nutall oak (*Quercus nutallii*), green ash (*Fraxinus pennsylvanica*), common persimmon (*Diospyros virginiana*), and red mulberry (*Morus rubra*). These species are commonly found in bottomland hardwood forests in the project area which exhibit similar edaphic and hydrologic traits as those planned for the proposed mitigation area. Initial plans will include 70% hard-mast seedlings and 30% soft mast from this list. If availability of seedlings dictates more than a 5% discrepancy from said schedule the CEMVN will be requested to approve this deviation.

The various species of seedlings will be planted on 9-ft centers, for an initial stand density of at least 538 seedlings per acre and the trenches backfilled. The lower areas within the bank will be planted with species that are more flood tolerant. Fertilizer will be applied to the seedlings after the first growing season in an attempt to minimize weed competition during this time. Because the area has been maintained in agriculture, it is presumed the fertility of the soil will be sufficient for seedling survival during this first year. Noxious weeds will be controlled by both mechanical and chemical methods throughout the life of the project, as necessary.

4.2 Technical Feasibility

The proposed bank will be greatly enhanced by the existence of hydric soils throughout the entire project area. In addition, the technical feasibility of converting these marginal farmlands back to bottomland hardwood forested habitat would seem to be strengthened by the fact that the property has at times been difficult and other times impossible to farm effectively due to excessively wet conditions (Plauche´ per. comm. 2017). The existence of adjacent forested wetlands as discussed in Section 3 of this report also provides assurance that a successful conversion of the land can be made.

The preparatory earthwork needed to restore elevations to pre-farming conditions is further facilitated because there are no rows and furrows that need to be leveled. All of the recent farming has been conducted on a flat ground surface. In addition, because the fields contain no existing undesirable woody vegetation, none needs to be removed. Once the project area has had some time to settle after primary site preparation measures have been completed, an experienced grading and excavation contractor will prepare/rip the planting rows and deliver and sow the tree seedlings. The Sponsor has engaged James Reed with Boeuf Built, LLC, a local grading and excavation company, to conduct the work on the property upon notice to proceed.

4.3 Current Site Risks

Recreational uses by locals could be a cause of concern. Trespassers may want to use the mitigation bank for the hunting of various mammals. All-terrain vehicles used by trespassers could cause ruts, impact hydrology and/or damage the tree seedlings that have been planted. Although Louisiana trespassing laws prohibit any person from entering property, owned by another, without express, legal, or implied authorization, signs will be posted to notify any potential trespassers of the intent of the property in hopes of deterring trespass and any damage to the land. An access gate is located at the eastern portion of the site along LA HWY 1181. A barbed-wire fence, to be constructed along the southern boundary of the bank site or Non-Bank Area D, will include a chain, cable or gate at the bank's access road entry point. Locking the access gates to the property would keep most trespassers out. Because the Sponsor and his son live on different sides of the proposed mitigation bank, they will be able to manage the

property directly and monitor and gain an understanding of the extent and effects of trespassing.

Because the drainage feature appeared to be maintained, inquiries for additional information were made to the USDA NRCS's Avoyelles Parish Service Center and Avoyelles Parish Police Jury. CEI emailed a map of the subject waterway to the NRCS who responded that none of their maps depicted any names for the waterway and "the police jury probably did work years ago because there is a spoil bank (Laborde 2017)." Information provided in emails by Kevin Bordelon, Civil Works Director, Avoyelles Parish Police Jury, dated March 23 and 24, 2017, indicated that the parish has jurisdiction over the channel Plaucheville-Cottonport Drainage Canal as well as 100 ft on both sides of the banks. Mr. Bordelon indicated that maintenance work usually does not require the use of more than one bank (access of excavator and deposition of spoil material) and if drainage work is ever required the parish always follows best management practices for storm water pollution and erosion control (2017b comm.). Whether a recorded drainage servitude for the Plauche´ reach of the Plaucheville-Cottonport Drainage Canal exists or not is seemingly moot because the parish claims jurisdiction of a drainage servitude through LRS 38:113 (Appendix F).

There are no other servitudes, liens, leases, encumbrances and/or agreements that affect the Plauche´ tract.

All of the cleared land that comprises the proposed mitigation bank is zoned Agriculture. The Avoyelles Parish Zoning Ordinances were reviewed on the parish website. It was discovered that the parish's zoning ordinance does not include a wooded/forested zoning designation and no zoning request is required to legally convert agricultural lands into woodlands.

4.4 Long-Term Sustainability of the Site

Once constructed, the PMB will have no structural features that must be actively managed on a daily, weekly, monthly or seasonal basis. It is anticipated that the bank's access road will need additional aggregate fill added to it on an as needed basis, but it will continue to be operated as a private road. The three existing fiberglass culverts may or may not need replacement within the next 100 years, but would likely, at some point in the future need to be replaced.

The property is located a relative distance from Louisiana's coastal waters, ensuring that salt water intrusion will not likely eliminate the inland plant species as might not be the case for a similar bank located within the state's coastal zone.

5. Proposed Service Area

The PMB would provide mitigation credits for projects located in the non-coastal portion of the Vermilion-Teche Watershed Basin which is comprised of the Bayou Teche (HUC 08080102) and Vermilion (HUC 08080103) Watersheds. It is also considered a secondary service area for the Atchafalaya Watershed (HUC 08080101) when credits in that watershed are not available for sale (Figure 9). Dependent on the availability of compensatory wetland mitigation credits from other banks and possibly other factors, the CEMVN will ultimately determine which wetland permit applicants in need of credits will be directed to the PMB.

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: Plauche´ Mitigation Bank
P. O. Box 86
Plaucheville, LA 71362
DrWarrenPlauche@gmail.com
318-305-7000

Agent: Ed Fike
Coastal Environments, Inc.
1260 Main Street
Baton Rouge, LA 70802
efike@coastalenv.com
225-383-7455 ext. 128

Landowner: Dr. Warren Plauche´
P. O. Box 86
Plaucheville, LA 71362
DrWarrenPlauche@gmail.com
318-305-7000

6.2 Qualifications of the Sponsor

The PMB has been a functioning cattle pasture and agriculture field for over 70 years in Avoyelles Parish. The southernmost portion of the PMB has been in the Plauche´ family since the 1930s. Dr. Plauche´ is known for practicing conservation and stewardship of the land. Because the landowner was concerned about past intrusive farming practices from the seemingly careless application of pesticides/herbicides and the area being problematic for farming activities due to excessively wet conditions, Dr. Plauche´ proposes to transform

the proposed mitigation project area into a functioning forested wetland habitat containing vegetation commonly associated with bottomland hardwood forests to aid in biological diversity, habitat for game and non-game mammals and birds, protection of aquatic resources and water quality and aesthetics for the area. This is consistent with current and past conservation-oriented practices conducted by the landowner.

6.3 Proposed Long-Term Ownership and Management Representatives

Dr. Plauche´ is both the proposed long-term owner and the party responsible for long-term management. Dr. Plauche´ recognizes proper approval must be obtained from the CEMVN and possibly the IRT before the PMB can apply for and become a corporate structure.

6.4 Site Protection

The owner will encumber the property with a perpetual conservation servitude. The landowner will contract the Land Trust of Louisiana, P. O. Box 1636, Hammond, LA 70404 or another approved third party to be the holder of the conservation servitude.

6.5 Long-Term Strategy

The long-term strategy for the proposed PMB is to fulfill the bank's operational and maintenance requirements by utilizing cost-effective practices/measures that maximize the bank's benefits including wetland productivity. Structural management requirements will be limited to three existing culverts – two associated with the primary access road and one along the northern boundary near the northwest corner of the PMB. The hydrology will be evaluated annually to identify any problem areas where soil moisture is excessive or inadequate and corrective actions will be taken, as required.

The vegetation will be assessed to isolate areas which may exhibit stress or impacts. The Sponsor will re-plant portions of the site when necessary, to ensure the required survivability of the forest and hard mast and soft mast percentages are maintained. Exotic and invasive species will be controlled to ensure the success of the planted and recruited vegetation at the bank. This includes mowing, herbicide application, and the removal of undesirable or invasive species. Responsibilities of the Sponsor such maintenance, monitoring, documenting sales and other paperwork will be handled quickly and efficiently. An adaptive management plan, describing how PMB will address potential and possibly unforeseen future problems, will be developed as part of the formal mitigation work plan.

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Table 1. Acreage Breakdown of Plauche' Mitigation Bank.

CURRENT BASELINE CONDITIONS							
Total All-Inclusive Bank Area (ac)	***Existing Primary Access Road (ac)***	***Existing Wetlands and Other Waters (Ditches) per Jurisdictional Determination (ac)***	***Total Existing Ditches (ac)***	***Existing Public ROW (ac)***	***Existing Private ROW (ac)***		
145.8	2.8	0.5	4	0	0		
PROPOSED MEASURES							
Total Non-Mitigation Credit Lands in Bank (ac)	***Existing Primary Access Road to Remain (ac)***	***Allowance for Existing Aerial Electrical Distribution Line (ac)***	***Existing Ditches to Remain (ac)***	***Existing Ditches to be Filled (ac)***	***New Ditch(es) to be Excavated (ac)***	***Existing Culverts to Remain/to be Replaced/to be Removed or Abandoned in Place (#)***	***Existing Field Road to be Degraded (ac)***
6.2	2.8	2.4	0.6	2.5	0.4	3/0/5	0.6
SUMMARY OF MITIGATION CREDIT ACREAGE							
Total Mitigation Credit Acres in Bank	***Proposed Bank Area to be Preserved for Mitigation Credit Sales***	***Proposed Bank Area to be Restored for Mitigation Credit Sales***					
139.6	0.9	138.7					

Figure 1 Vicinity Map

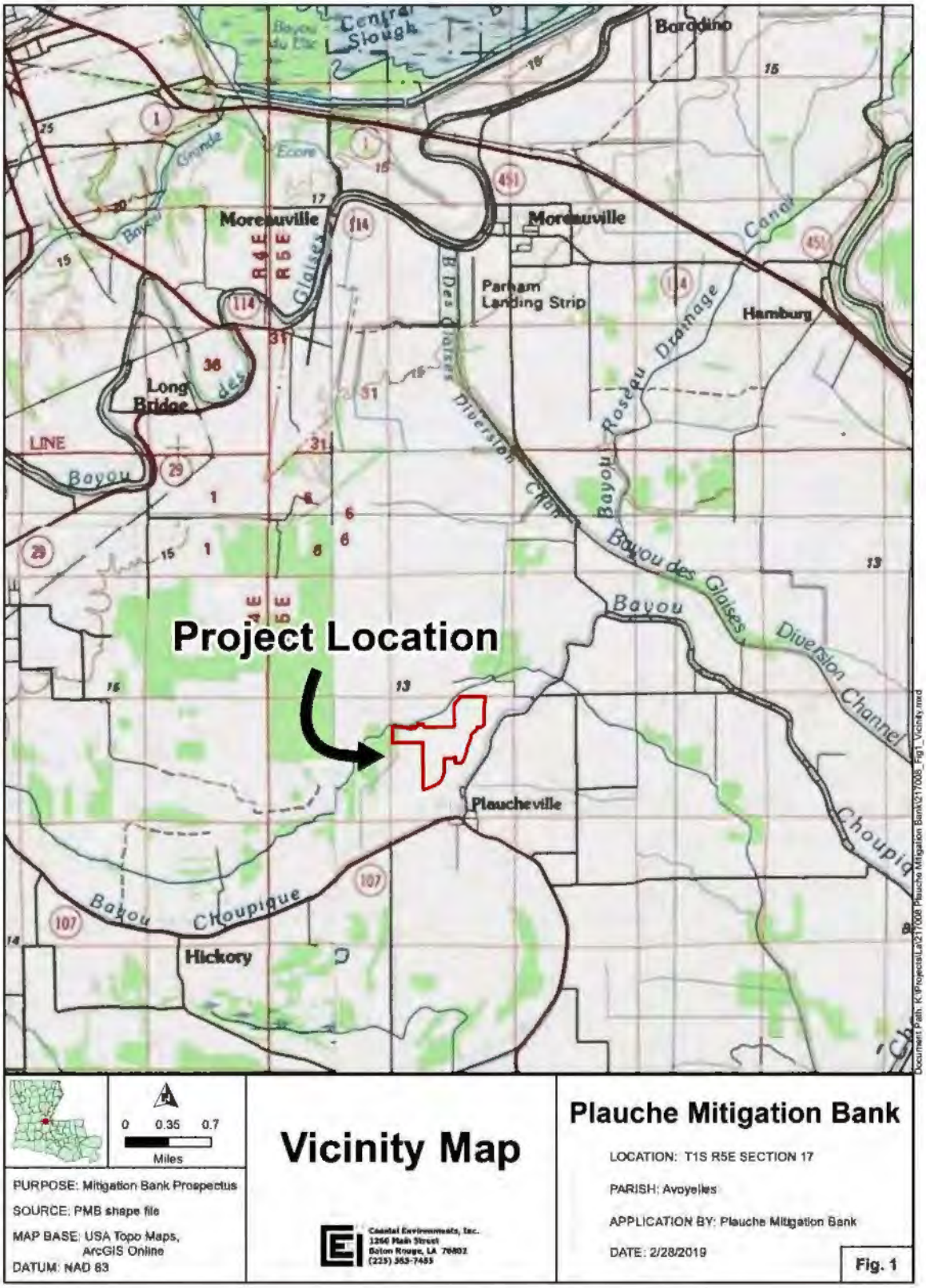


Figure 2 Site Plan Map

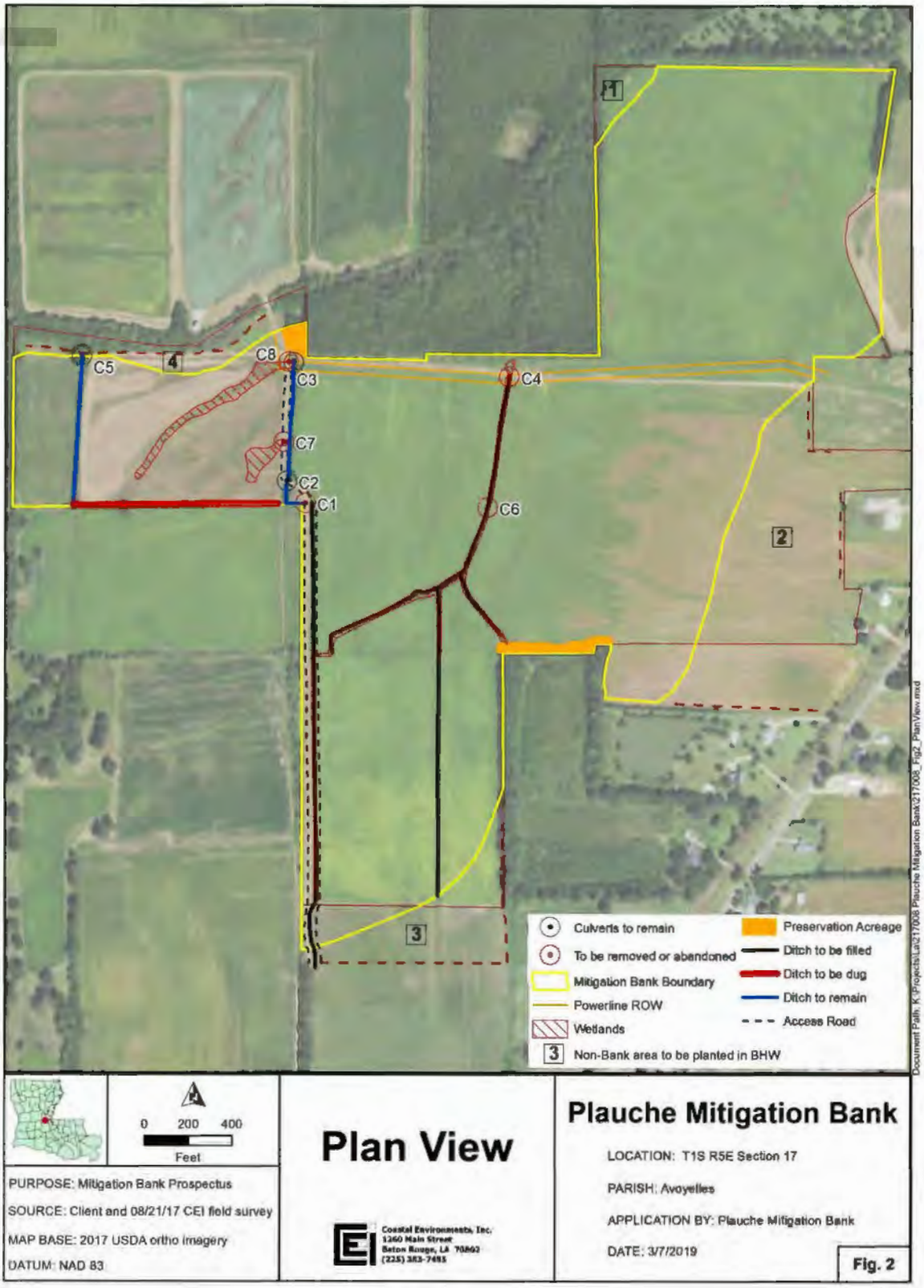


Figure 3 Existing Site Drainage

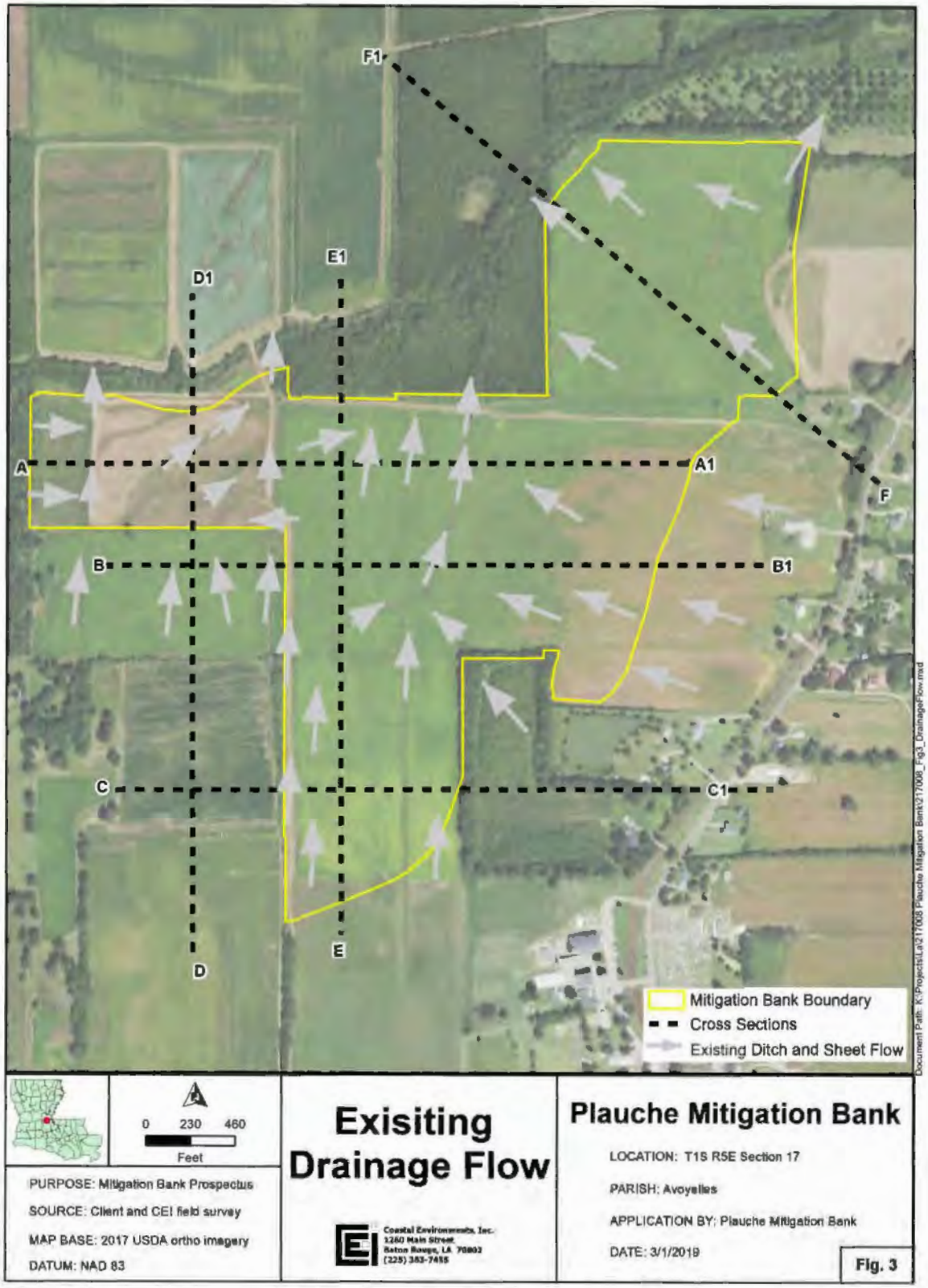


Figure 4 Restoration Plan (Drainage)

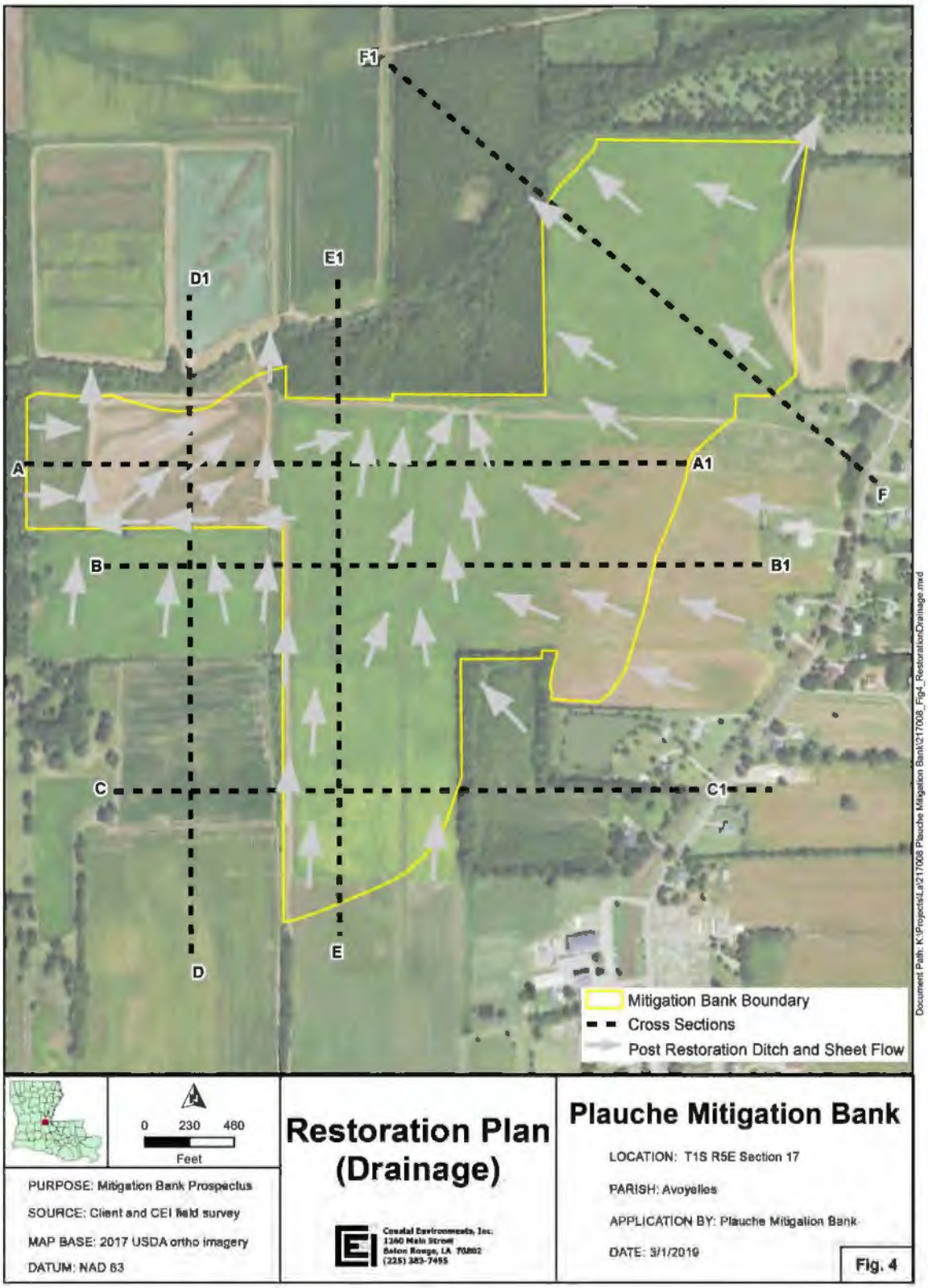


Figure 5 LIDAR Map

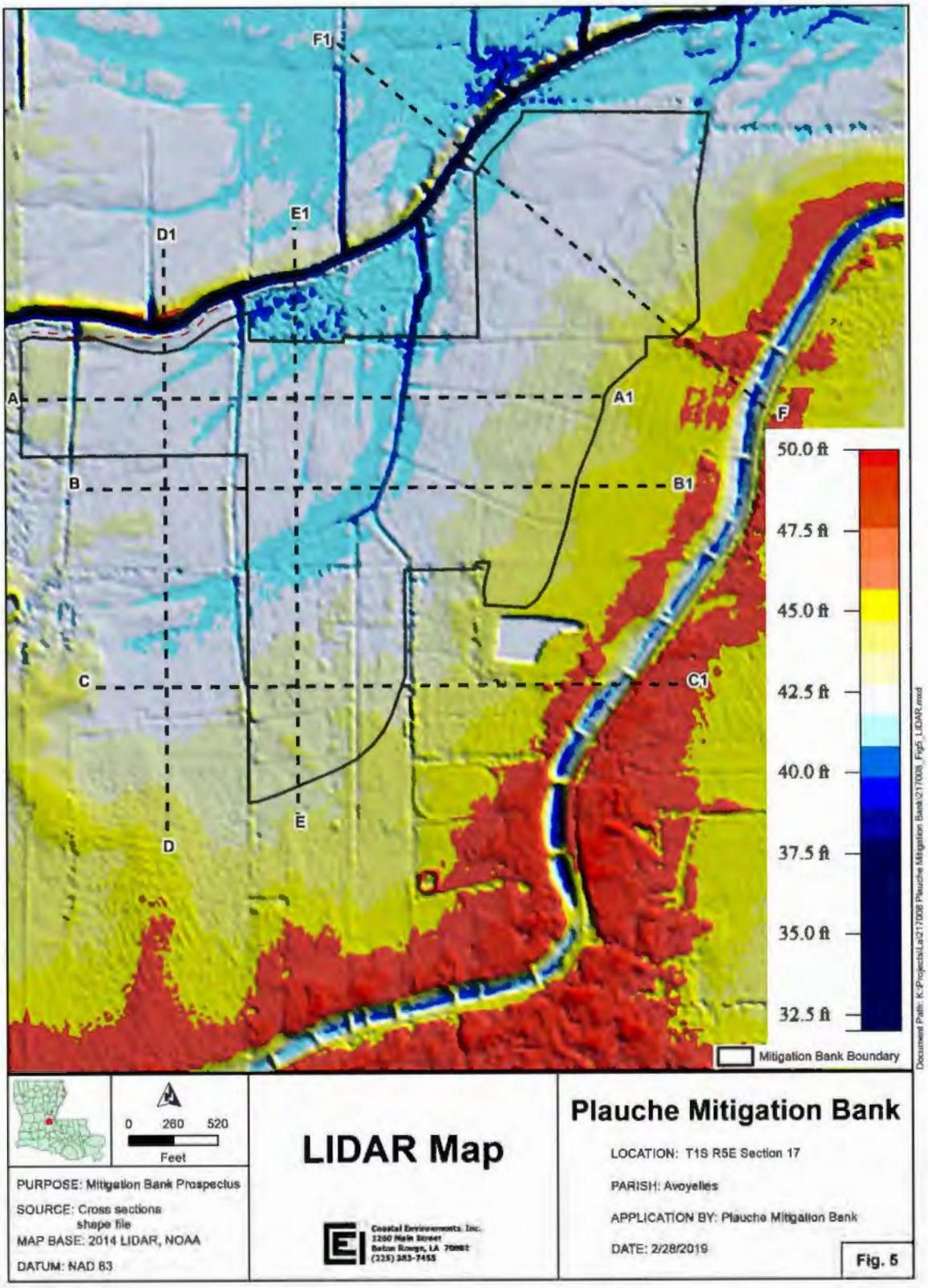


Figure 6 National Wetland Inventory Map

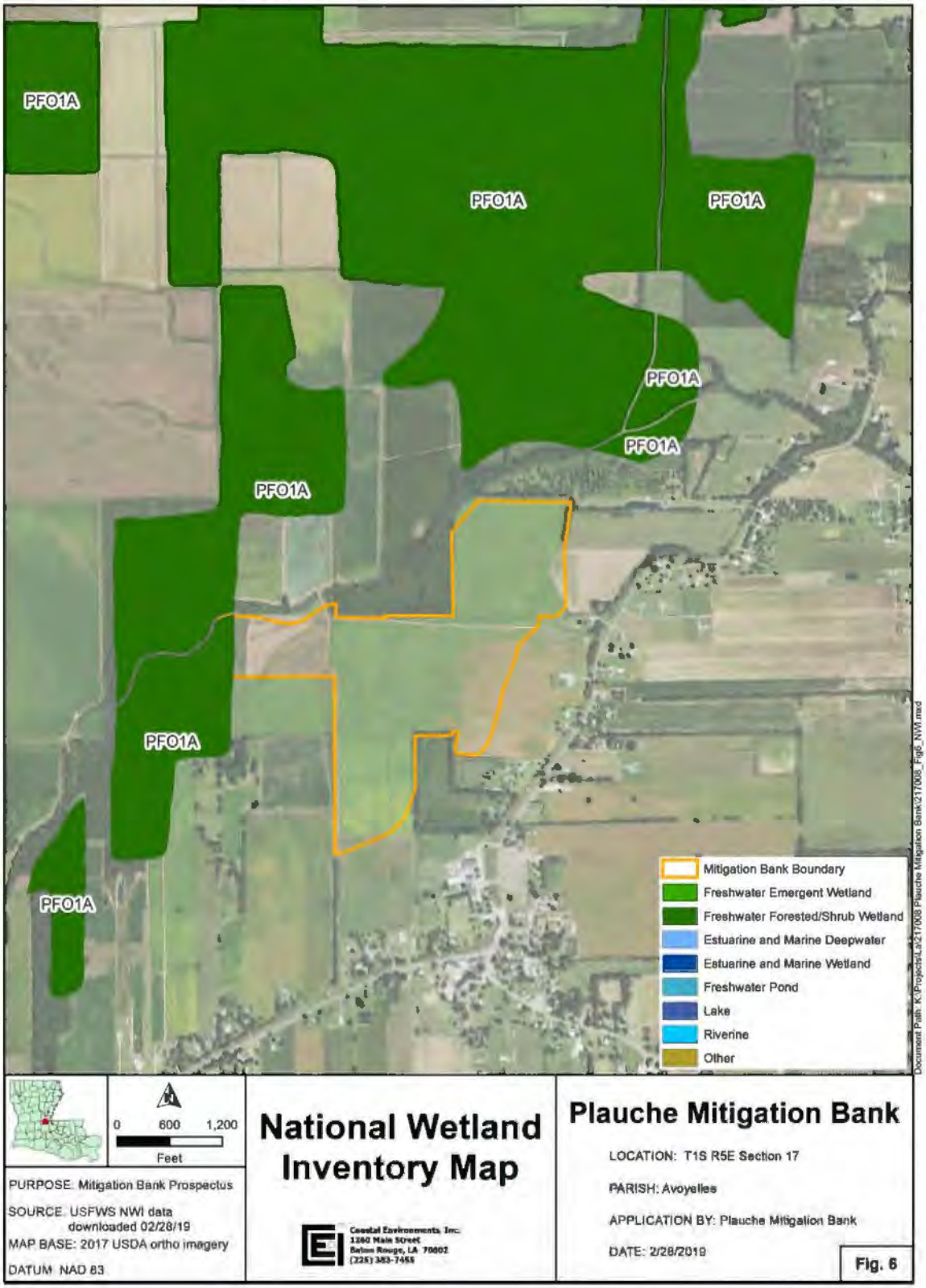


Figure 7 Soil Survey Map

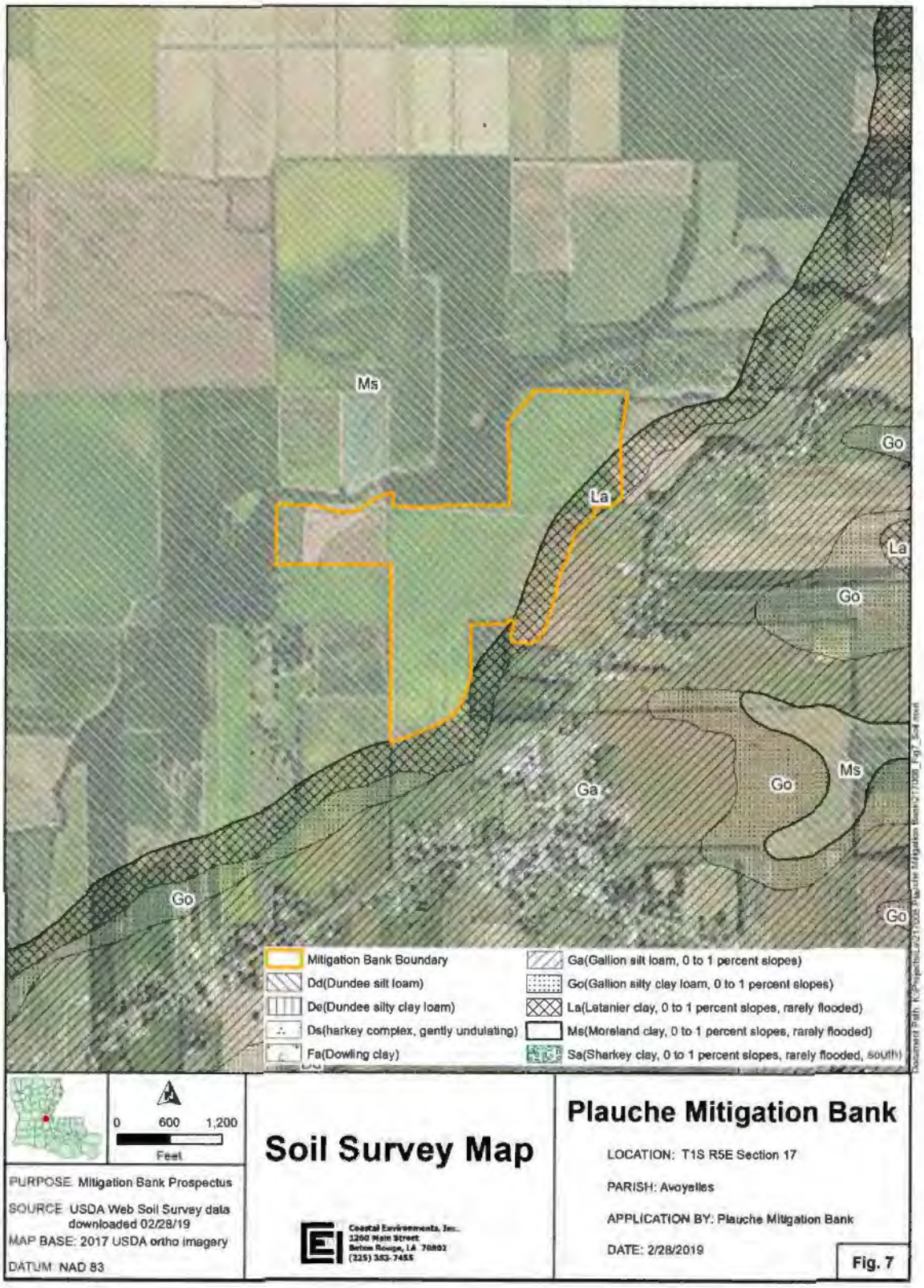


Figure 8-A Cross Section A - A'

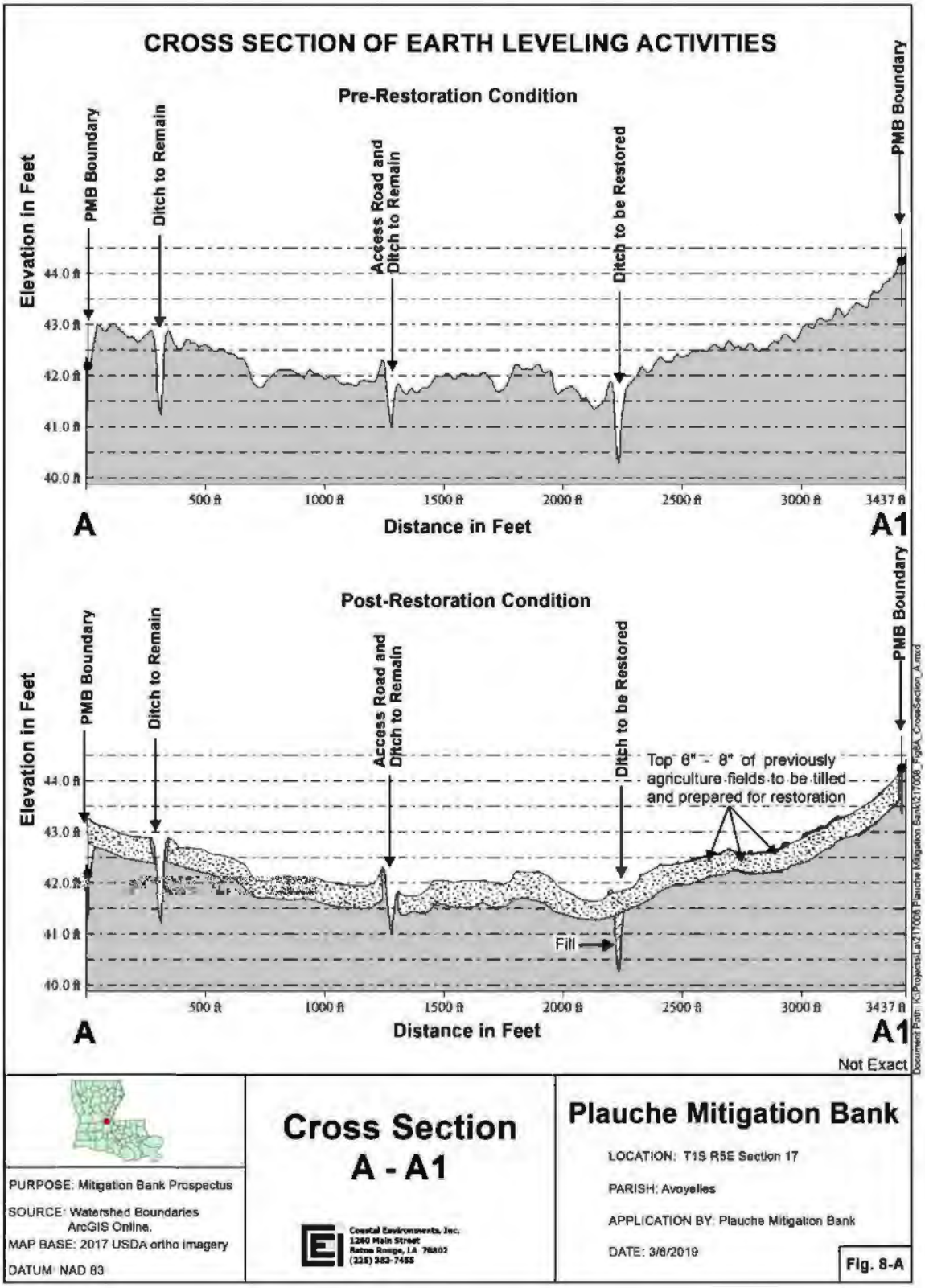


Figure 8-B Cross Section B - B'

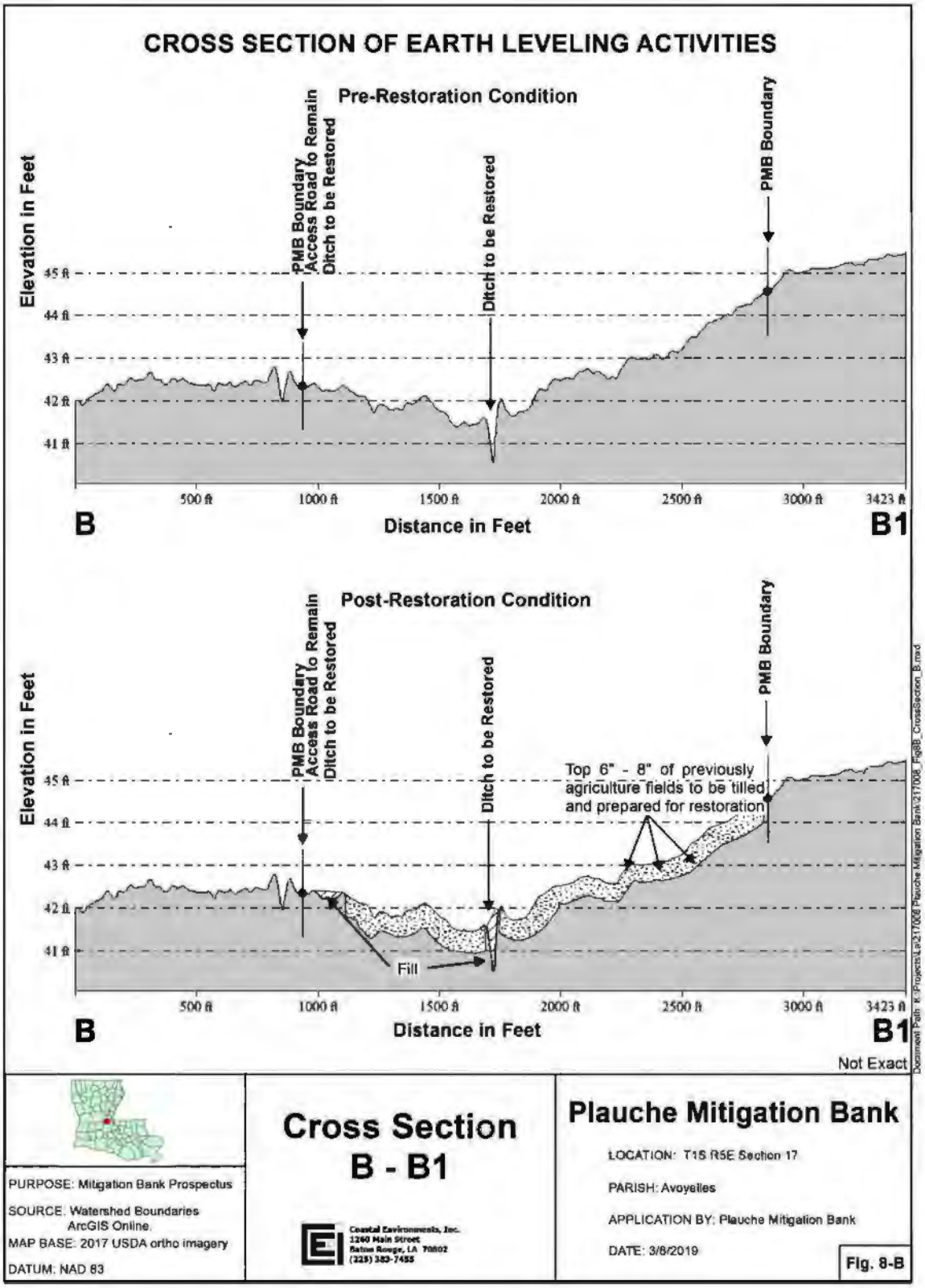


Figure 8-C Cross Section C - C'

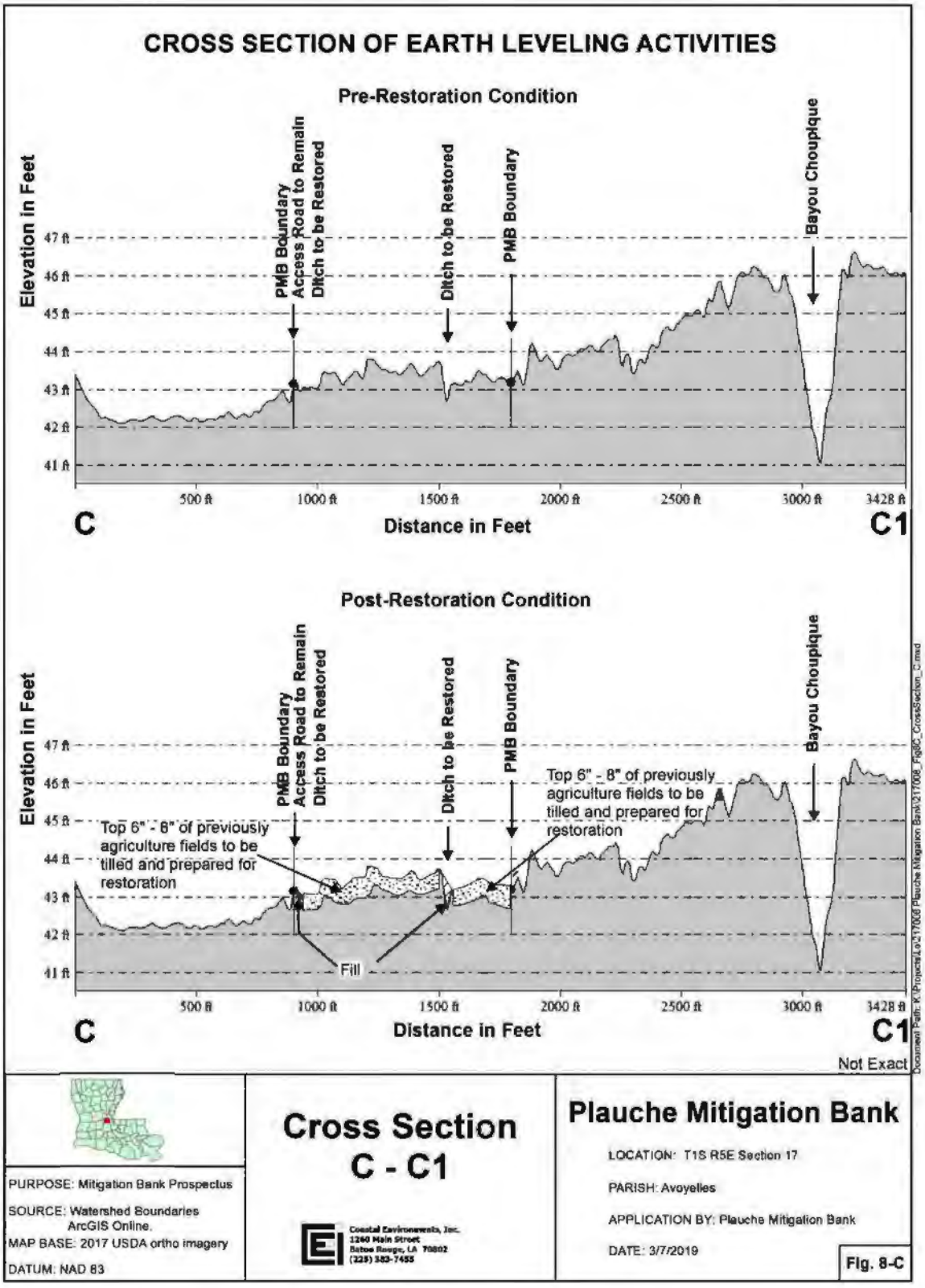


Figure 8-D Cross Section D - D'

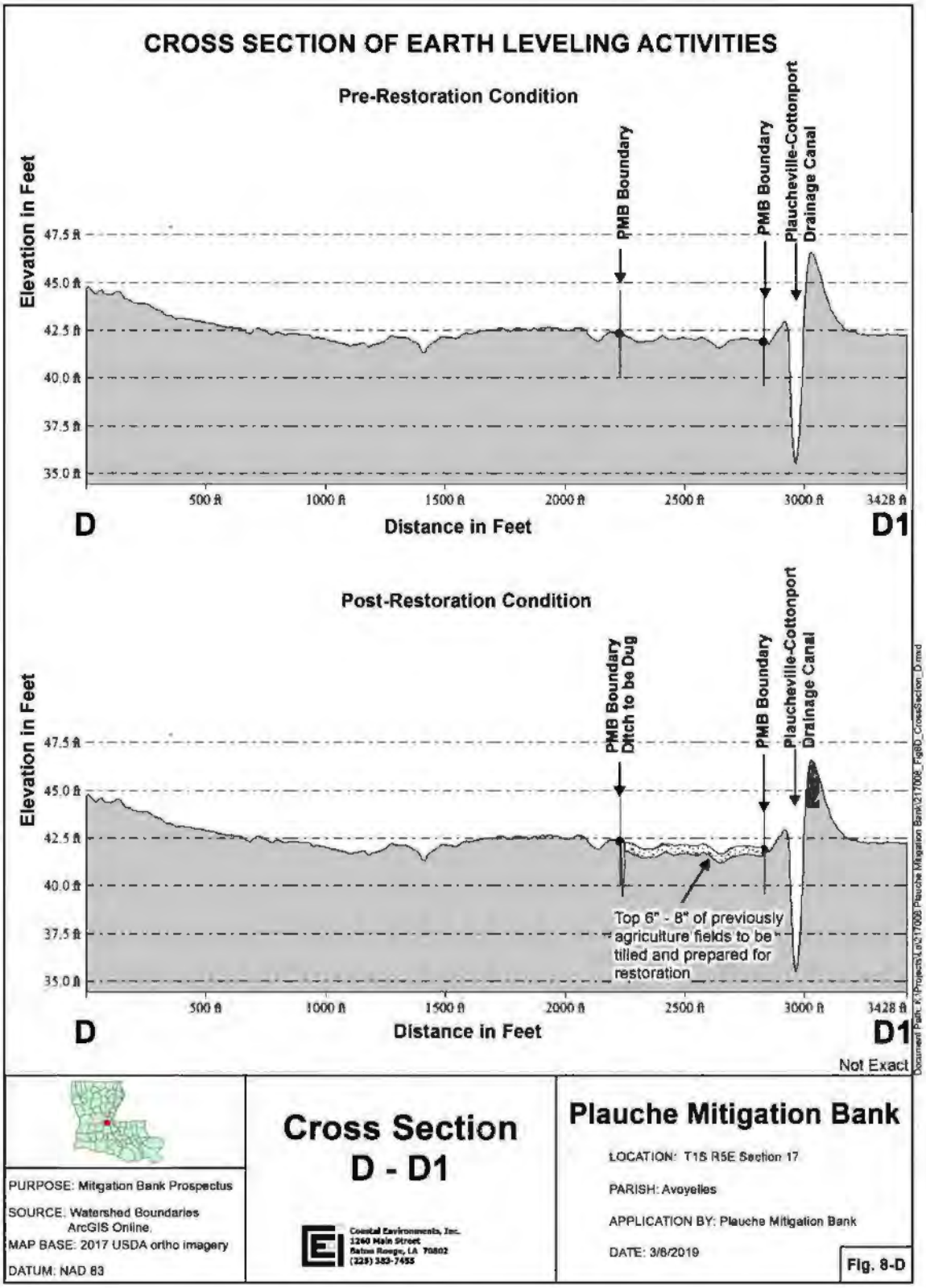


Figure 8-E Cross Section E - E'

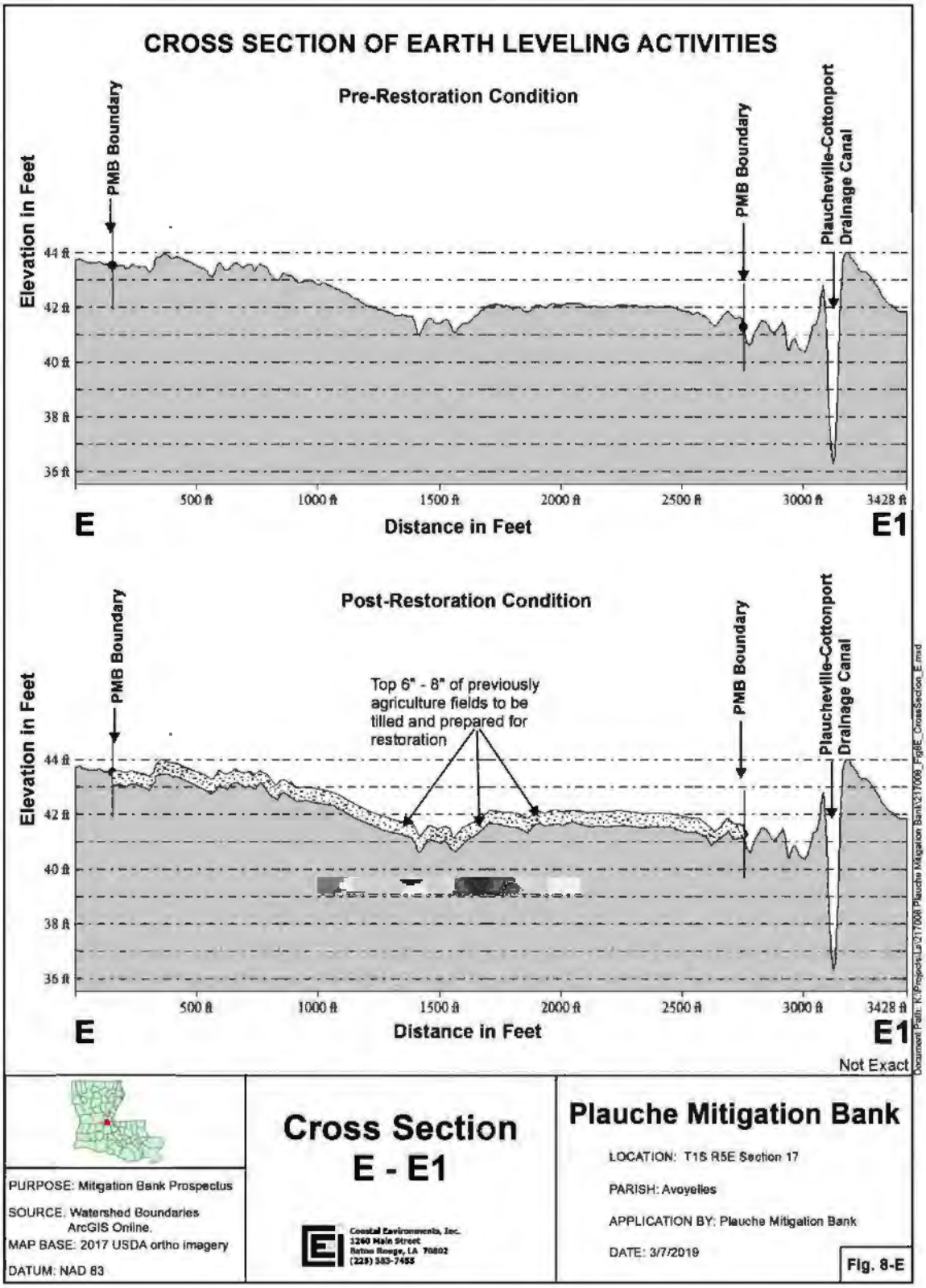


Figure 8-F Cross Section F - F'

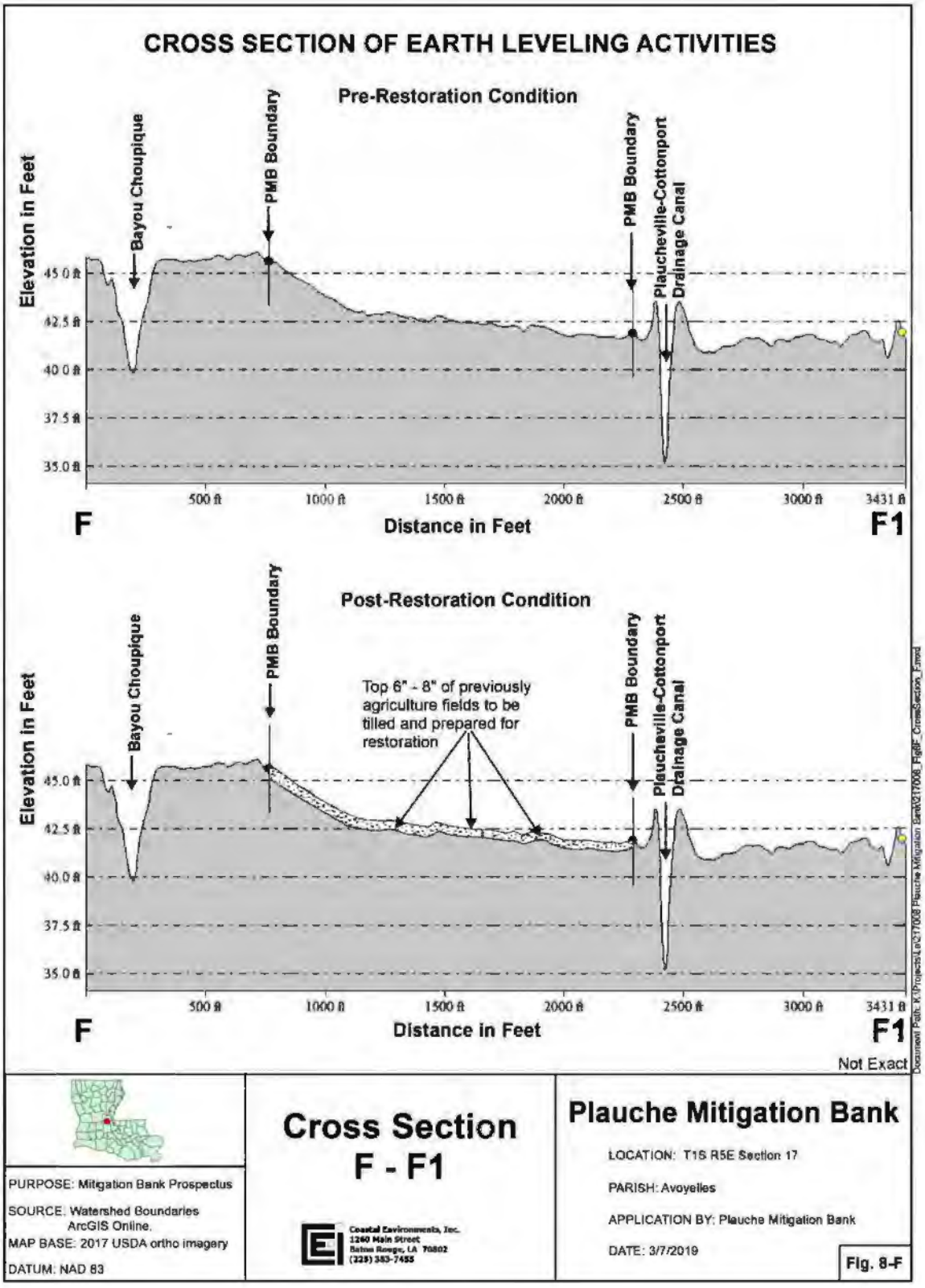
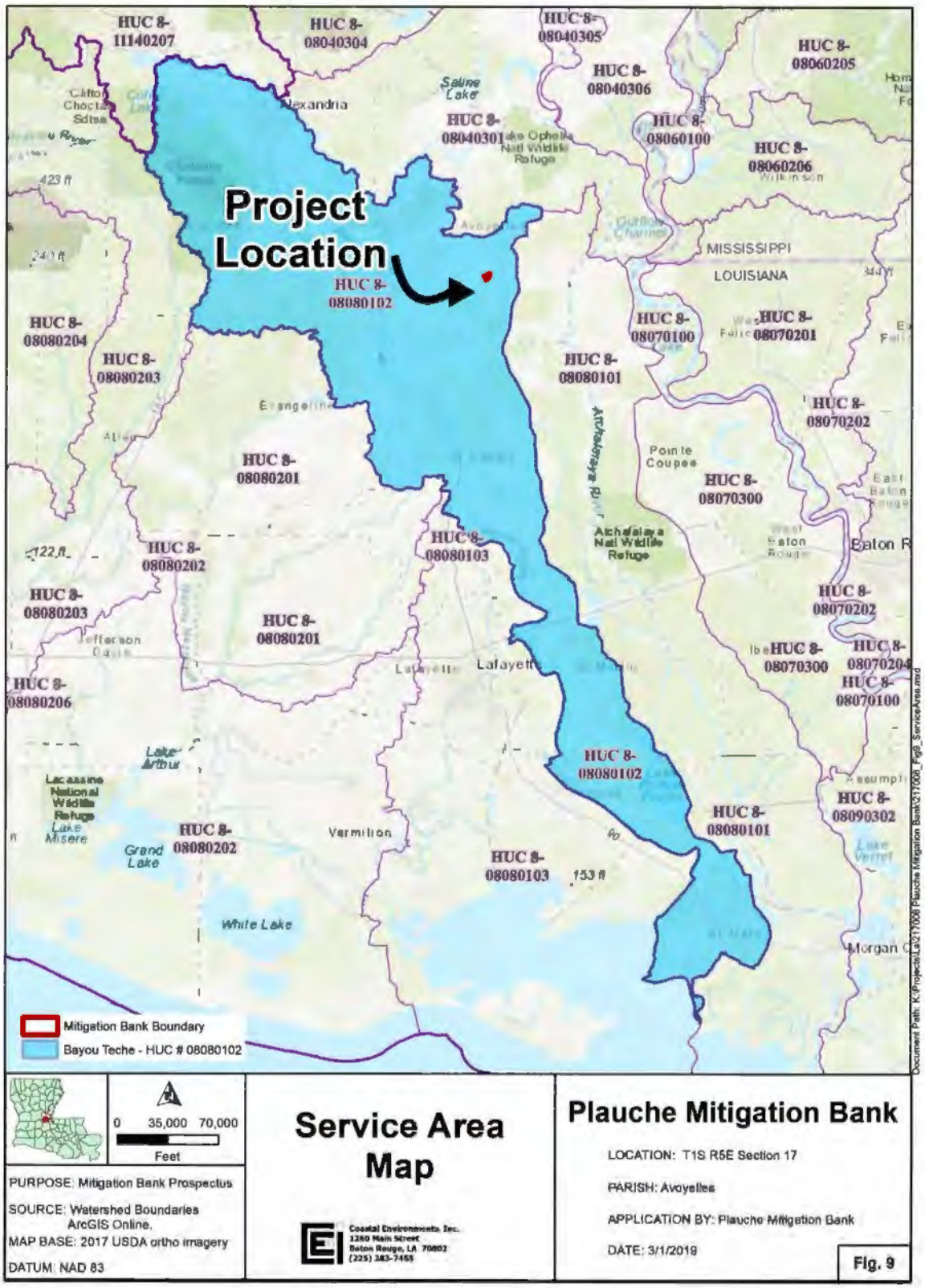


Figure 9 Hydrologic Unit Maps



APPENDIX A
Farming Lease Agreement

A Substantial Amount of Information is Associated with This Appendix and is Available by Request Only

APPENDIX B

Copies of USDA NRCS *Custom Soil Resource Report for Avoyelles Parish, Louisiana Plauche Mitigation Bank* and Excerpted Soil Data Access (SDA) Hydric Soils List, Avoyelles Parish, LA

A Substantial Amount of Information is Associated with This Appendix and is Available by Request Only

APPENDIX C
Drone Aerial Photography

A Substantial Amount of Information is Associated with This Appendix and is Available by Request Only

APPENDIX D

U.S. Army Corps of Engineers
Jurisdictional Determination No. MVN-2017-00925-1-SR

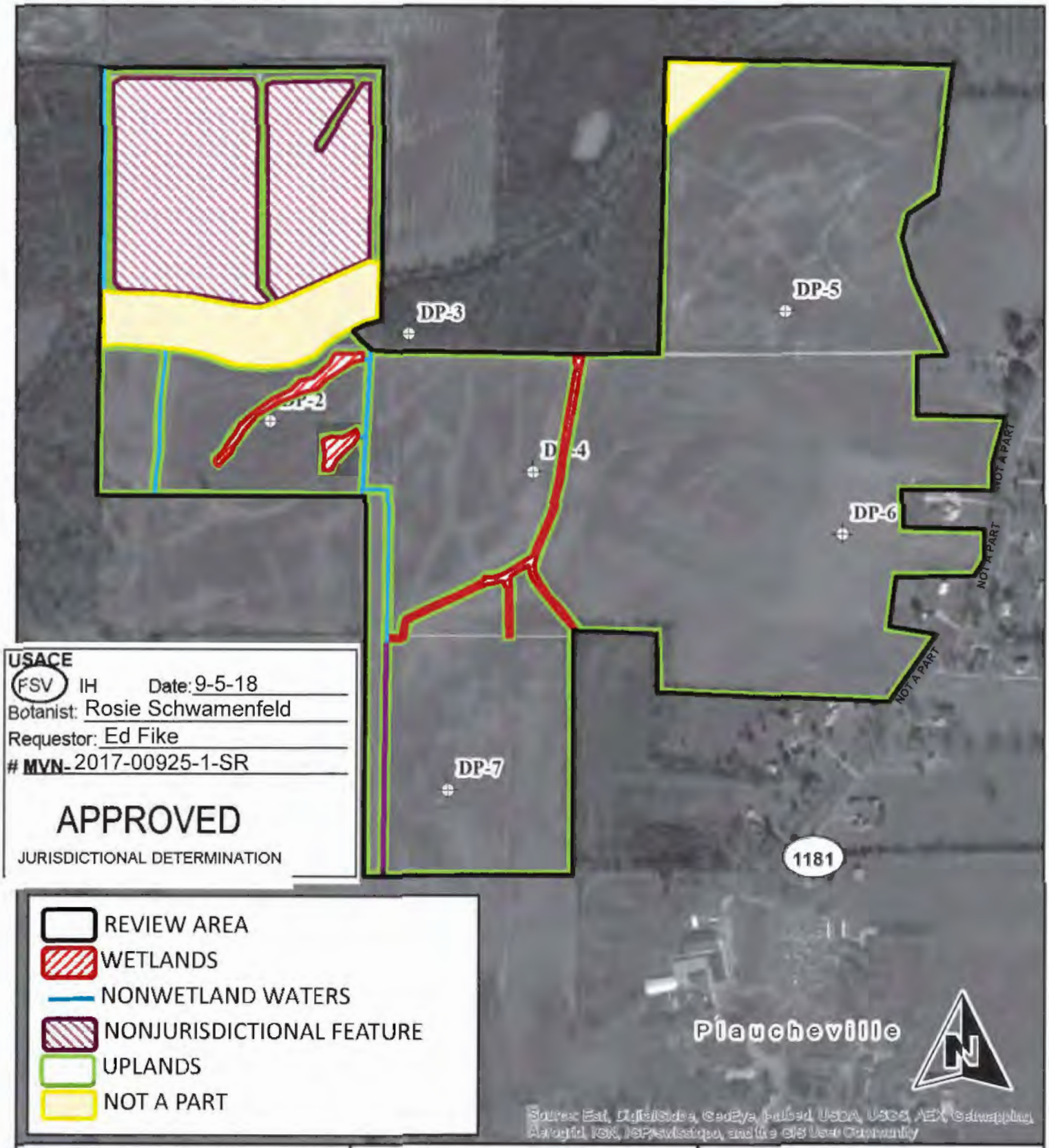


Figure 3

PURPOSE: Mitigation Bank Prospectus
SOURCE: Client Provided Survey & CEI Field Data
MAP BASE: Client Provided Survey & ESRI World Imager
DATUM: NAD83

0 300 600 900 1,200
Feet

DETAILED SITE MAP

Coastal Environments, Inc.
Biloxi, MS.....228-385-5547

Plauche Mitigation Bank Wetland Determination

Report Map for
+/- 203 acre Project

LOCATION: Section 17, T-1-S, R-5-E
PARISH: Avoyelles, LA
APPLICATION BY: Plauche Mitigation Bank
DATE: June 28, 2018

APPENDIX E
U.S. Army Corps of Engineers
Section 404 Permit Application

A Substantial Amount of Information is Associated with This Appendix and is Available by Request Only

APPENDIX F
Drainage Servitude Information

A Substantial Amount of Information is Associated with This Appendix and is Available by Request Only