

JOINT PUBLIC NOTICE

May 23, 2016

United States Army
Corps of Engineers
New Orleans District
Regulatory Branch
Post Office Box 60267
New Orleans, La. 70160-0267

State of Louisiana
Department of Environmental Quality
Post Office Box 4313
Baton Rouge, La. 70821-4313
Attn: Water Quality Certifications

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Permit Application Number
MVN-2014-01369-MG

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Project Manager
Elizabeth Hill
WQC Application Number
WQC # 151112-03

Interested parties are hereby notified that a permit application and prospectus has been received by the New Orleans District of the U.S. Army Corps of Engineers pursuant to: [X] 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).

LITTLE PRAIRIE RANCH MITIGATION BANK IN VERMILION PARISH

NAME OF APPLICANT: Olivia Rae Farms, LLC c/o KourCo Environmental Services, Inc., Attn: Fred Dunham, 3131 Cameron Street, Lafayette, LA 70506.

LOCATION OF WORK: The 638 acre site is located near Forked Island, Louisiana, in Vermilion Parish, as shown on enclosed drawings (Latitude: 29.810834 N, Longitude: 92.313052 W). The Project is located within the Mermentau River Hydrologic Unit 08080202.

CHARACTER OF WORK: Remove pumps, install culverts degrade existing levees, and modify existing water control structures for the purpose of enhancing and restoring traditional surface hydrology to the site for the construction of a mitigation bank. The proposed restoration will re-establish 311.7 acres of Fresh Marsh and rehabilitate 279.9 acres of Fresh Marsh. In addition to the restoration acreage 31.1 acres of non-mitigation areas are proposed to be included in the conservation servitude for the proposed 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.

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

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.

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 received approval or a waiver of the Coastal Use Permit by the Department of Natural Resources.

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

Martin S. Mayer
Chief, Regulatory Branch

Enclosure

**Prospectus for the
Little Prairie Ranch Mitigation Bank, LLC
Vermilion Parish, Louisiana**

April 2016

SPONSOR

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Aux, LLC
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1.0 INTRODUCTION

Olivia Rae Farms, L.L.C. is pleased to present the following prospectus and site restoration plan for the Little Prairie Ranch Mitigation Bank (Bank) to the Interagency Review Team (IRT) and US Army Corps of Engineers New Orleans District (CEMVN). We are requesting that this Bank be evaluated and approved as the Little Prairie Ranch Mitigation Bank. The purpose of site restoration activities will be the re-establishment, re-habilitation, and rehabilitation of herbaceous wetland (fresh marsh) communities to provide compensation for unavoidable wetland impacts authorized by the issuance of the Coastal Use Permit under the Louisiana Department of Natural Resources Office of Coastal Management (LDNR/OCM) and the Department of the Army (DA) permits under Section 404 of the Clean Water Act of 1972 & Sections 9 and 10 of the Rivers and Harbors Act of 1899.

1.1 SITE LOCATION

The proposed Little Prairie Ranch Mitigation Bank is located in Vermilion Parish, Louisiana in Section 24 of Township 14 South, Range 1 East and Section 19 of Township 14 South, Range 2 East (Figure 1) at Latitude 29° 48' 39" and Longitude 92° 18' 47". The Bank totals approximately 637.98± acres. The Bank is located approximately 3.54 miles south of Forked Island, Louisiana as depicted in Figure 1. Figure 2 depicts the location of the proposed Bank south of Forked Island in Vermilion Parish.

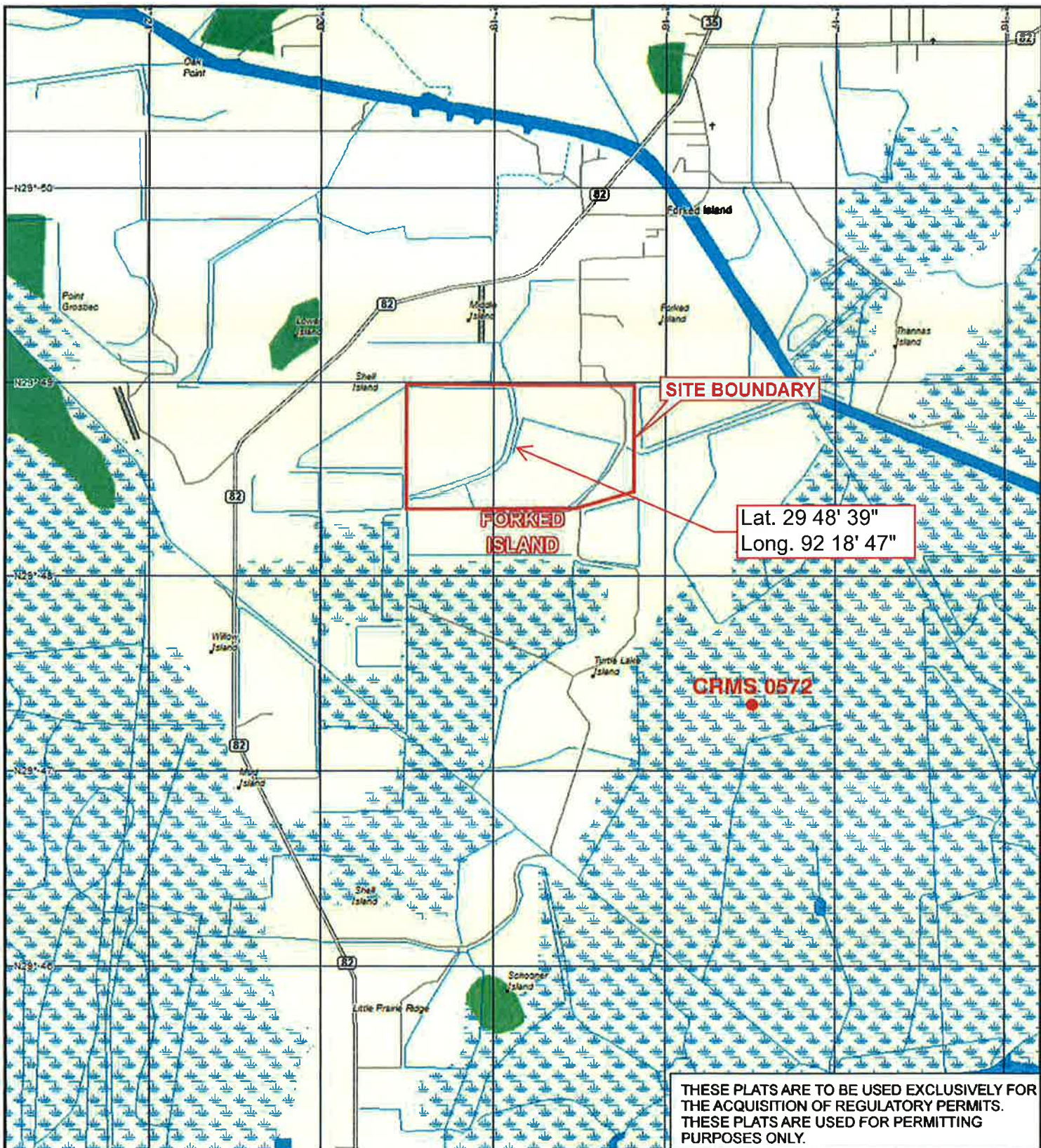
2.0 PROJECT GOALS AND OBJECTIVES

The specific goals are the re-establishment and rehabilitation of herbaceous wetland (fresh marsh) communities to provide compensation for unavoidable wetland impacts.

The objectives of the Bank are the following:

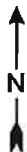
- Improve fresh marsh resources
- Improve fresh marsh functions and values
- Improve fresh marsh of the greater Vermilion watershed through the re-establishment and rehabilitation of herbaceous (fresh marsh) ecological systems
- Provide free exchange of water regime to fastlands
- Provide for increase nutrient cycling
- Provide for increase flood storage
- Provide for increase water quality

Restoration and rehabilitation of this site will specifically provide for 1) the restoration of impacted habitat types within the HUC 08080202 watershed, 2) provide high-quality habitat for wetland dependent wildlife and wildlife requiring herbaceous ecosystems, 3) improved wildlife dispersion



Lat. 29 48' 39"
Long. 92 18' 47"

THESE PLATS ARE TO BE USED EXCLUSIVELY FOR THE ACQUISITION OF REGULATORY PERMITS. THESE PLATS ARE USED FOR PERMITTING PURPOSES ONLY.

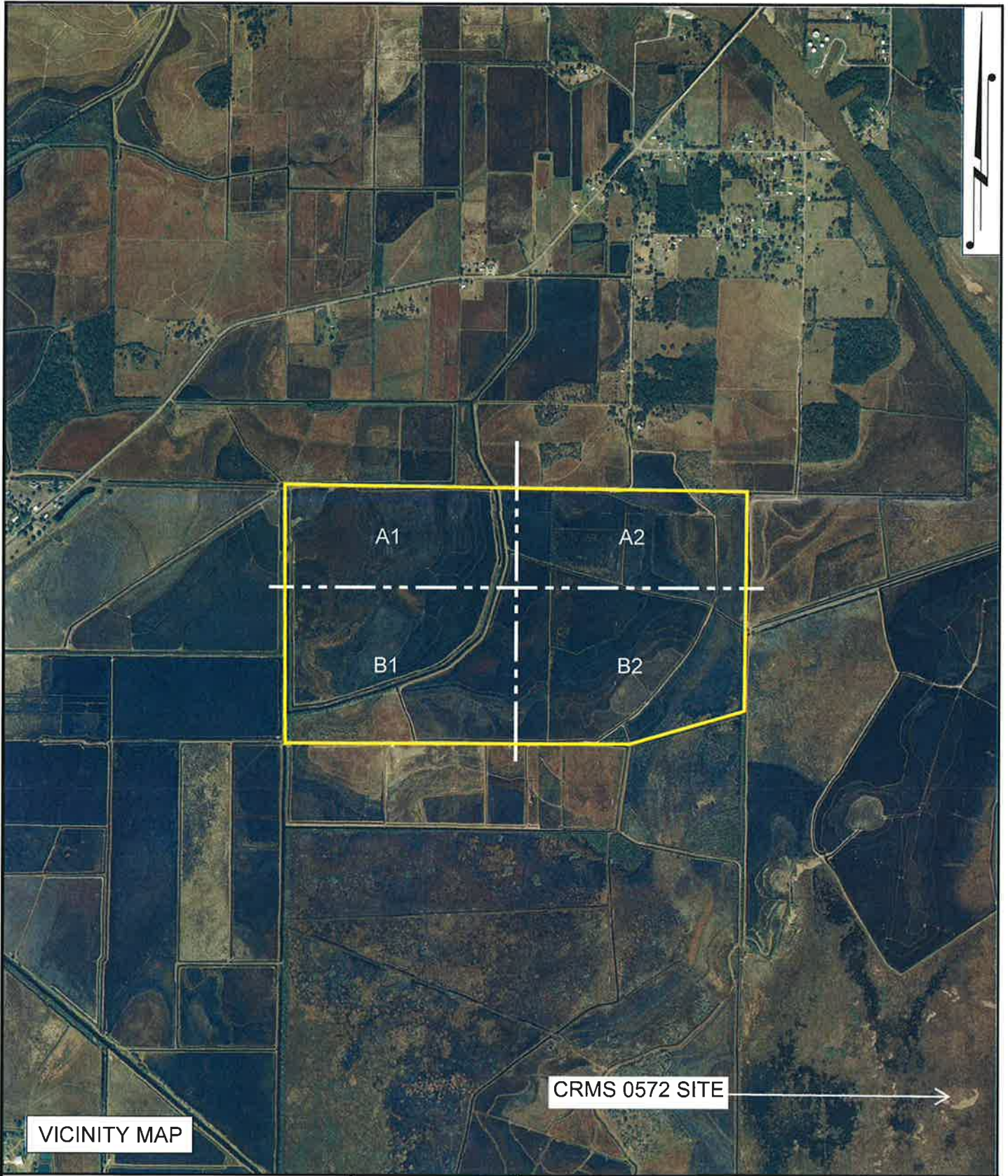


Scale
0 3000 ft

Forked Island (LA) Topo Quad
Vermilion Parish, LA



Project: Little Prairie Ranch Vermilion Parish, LA Forked Island (LA) Topo Quad		
FIGURE: 1		
Date: 06/04/2014	Project No.: 12848-01	
Drawn By: MKM		
Figure Title: VICINITY MAP	Sheet No.: 1 of	



VICINITY MAP

CRMS 0572 SITE →

THESE PLATS ARE TO BE USED EXCLUSIVELY FOR THE ACQUISITION OF REGULATORY PERMITS. THESE PLATS ARE USED FOR PERMITTING PURPOSES ONLY

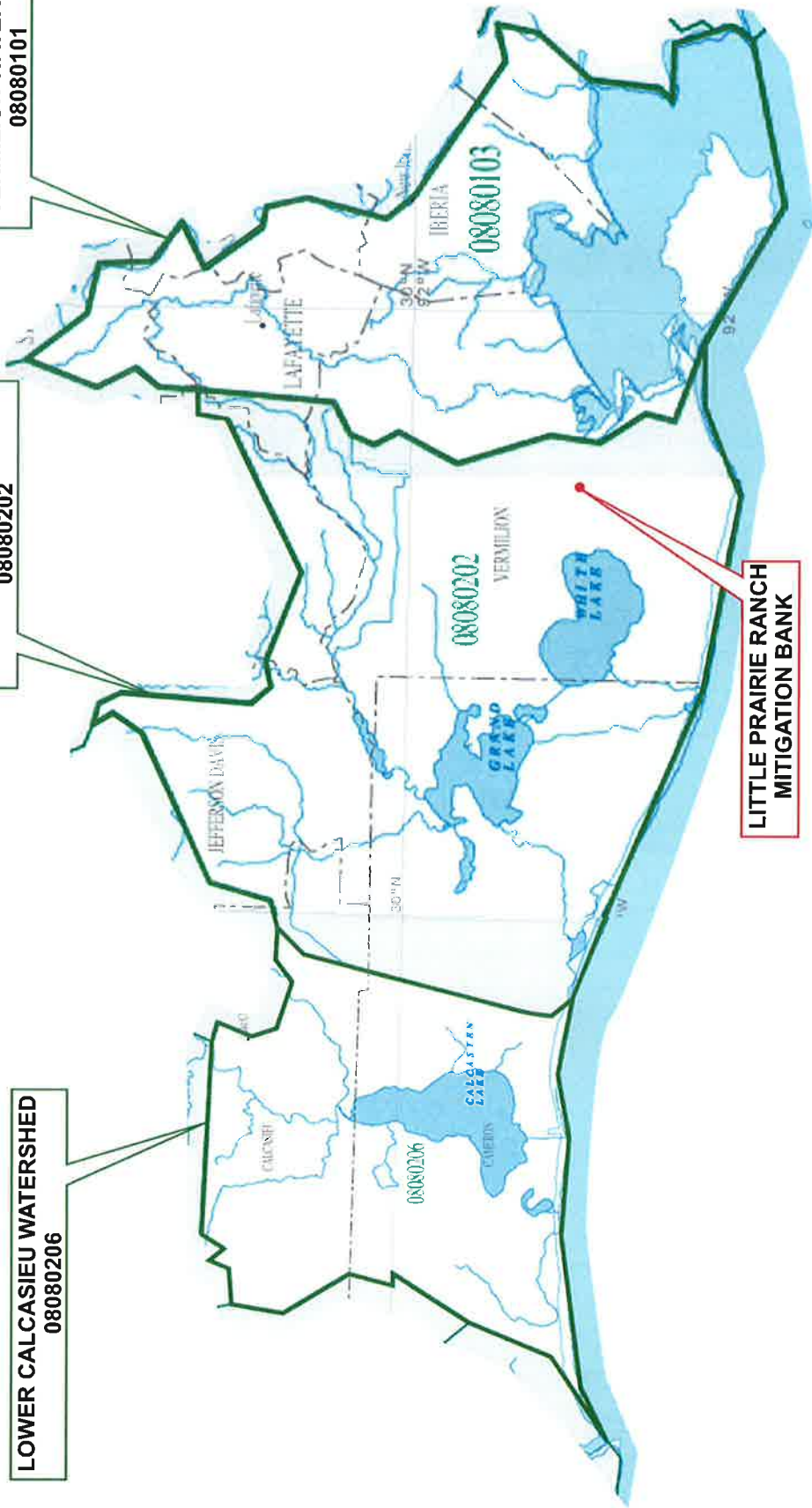


VICINITY MAP
 LITTLE PRAIRIE RANCH
 2010 AERIAL PHOTOGRAPH
 VERMILION PARISH, LOUISIANA
 FIGURE 2

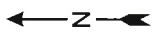
VERMILION WATERSHED
08080101

MERMENTAU WATERSHED
08080202

LOWER CALCASIEU WATERSHED
08080206



LITTLE PRAIRIE RANCH
MITIGATION BANK



THIS IMAGE WAS PROVIDED BY THE USGS
<http://water.usgs.gov/wsc/cat/08080202.html>



Project: Little Prairie Ranch
Vermilion Parish

Date: 04/09/2014
Project No.: 12848-01

Drawn By: MKM

Figure Title: Service Area
Figure No.: 3

and genetic diversity, and 4) restoration of natural water flow, levels, and fluctuations.

3.0 ECOLOGICAL SUITABILITY OF THE SITE

The contributing drainage area of the Bank includes HUC Cataloging Unit 08080202 (Figure 3). The HUC area is from Bayou Teche Watershed in the north, west of the Vermilion Bay, east of Lower Calcasieu Watershed and south to the Gulf of Mexico.

The proposed Bank will contain a total of 591.57± acres of herbaceous wetlands which will be passively managed as a fresh marsh. Figure 2 depicts the outline of the proposed Bank on an aerial photograph. Currently the 591.57 acres does not have a free flowing hydrological connection to other adjacent fresh marshes. Of this acreage, 53 percent is either classed as PC or non-wetland and can be restored to fresh marsh.

3.1 Historical Ecological Characteristics of the Site

Based on the historical aerial photography (see Attachment A) research of surrounding habitat, the Bank area supported bottomland hardwood and herbaceous (fresh marsh) community types with inclusions of coastal prairie community, as defined in the *Natural Communities of Louisiana* and electronically published by the Louisiana Department of Wildlife Fisheries and Louisiana Natural Heritage Program (LNHP). These imperiled bottomland hardwood and herbaceous community types are associations that occur within coastal ecosystems on hydric soils, depressions and small drainages (slashes), and are generally not affected by over Bank flooding.

The area was cleared of selected forested wetlands species and the conversion of the herbaceous areas into agriculture areas at the turn of the 20th century with construction of levees and controlled hydrology. The agriculture activities included the production of rice, corn, soybean, crawfish, and cattle. The use of the area for cattle grazing has been documented as far back as the early 19th century when the area was being settled by individuals from the European countries. The area has been a fastland since the early part of the 20th century.

3.2 Current Ecological Characteristics of the Site

Soils

The soils located within the proposed Bank are Gueydan muck [Gy] (49.3%), Judice silty clay loam [Jd] (8.5%), Kaplan silt loam [Ka] (2.3%), and Midland silty clay loam [Mn] (38.7%). These series are all poorly drained soils. All of these soils were found to be hydric. See Attachment B. These soils within the Bank have been subject to oxidation for extended periods of time by being exposed during agriculture activities since the early 1900's. Some reduction of ground elevations from agriculture activities is expected but cannot be determined due to the lack of elevation data from pre-agricultural time period.

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The Gueydan muck is a poorly drained, very permeable, mineral soil that formed in organic material and fluid clayey alluvium and consolidated as the results of artificial drainage. This soil was formerly fresh water marshes.

The Judice silty clay loam is a poorly drained, very slowly permeable soil with less than 1 percent slope that formed in loamy and clayey alluvium with organic material. These soils are found on flats, in swales and broad depressional areas within the Gulf Coast Prairies. This soil is usually in the same landscape position as Midland soils.

Kaplan silt loam consists of poorly drained and slowly permeable soil that formed in loamy alluvium with organic material. This soil is on low ridges on the Gulf Coast Prairies. This soil is usually in a slight higher landscape position to Judice and Midland soils.

Midland silty clay loam consists of poorly drained and very slowly permeable soil that formed in loamy and clayey alluvium with organic material. This soil is found on broad flats and in slightly concave areas of Gulf Coast Prairies with slope less than one percent. This soil commonly found with Gueydan, Judice and Kaplan soils, but is slightly higher in landscape position than Gueydan soil.

All of these soils have consolidated as a result of artificial drainage and the oxidation of the organic features of these soils. The results of the consolidation can be seen in comparing the LiDAR elevations for each of these soils. In addition each of these soils is known to supporting fresh marsh vegetation.

Surrounding Land Use

The surrounding land use consists of 7,500 ± acres of agriculture property located to the northeast, north, west and southwest. Herbaceous wetlands are located to the east and southeast totaling approximately 6,314 ± acres. Figure 2 depicts an aerial photo layout of the land used within one-half mile of the proposed site.

Existing Drainage

The existing storm drainage flows to small field conveyances and culverts then into larger conveyances which transport storm water into the interior canals. However, most of the time rainfall is absorbed into the soil or retained in lower areas. Culverts and pumps exist in the drainage system to provide for irrigation and drainage for agriculture uses. The proposed Bank area has been irrigated and de-watered with a pump system since the early 20th century for the purpose of agriculture production of crops, crawfish, and cattle. There is no existing free exchange of water to the PC, non-wetlands or existing herbaceous wetlands (fresh marsh) areas except for a fresh marsh and forested wetland area in the southwest corner of the Bank. Therefore the area enclosed by the levees is a fastland.

A series of existing interior canals are used for irrigation or drainage of the areas. The waters in the irrigation canals flow away from the pump, while the drainage canals have waters flowing to the pumps. See Attachment C. A series of interior levees assisted in creating the desired water regime

for the agriculture lands.

Hydrology of the site consists of rainfall and irrigation from existing external canal. The NRCS characterizes this area as receiving a mean annual precipitation ranging from 45-62 inches. The NRCS has classified a significant part of the site as Prior Converted (PC). Wetland hydrology persists in areas claimed as Jurisdictional Wetlands. The confirmed presence of hydric indicators indicates that the site was historically saturated. Historic crop management with major and minor ditching & leveeing altered the entire the site.

Prior to the development of the system of canals, ditches, levees and roads this entire area was dependent on sheet flow and rainfall for the availability of water. There were no natural bayous, waterways, or water conveyances.

3.3 General Need for the Project in this Area

The increased activity for development in the watershed (HUC 08080202) is resulting in the need for high quality mitigation within the watershed to offset unavoidable impacts to several herbaceous wetland (fresh marsh) community types. This Bank will be submitted under Mitigation Bank Agreement and will provide for the restoration and rehabilitation of herbaceous (fresh marsh) species being restored within the proposed Bank area.

Existing Vegetative Communities

The jurisdictional forested wetland areas in the site is dominated by Chinese Tallow (*Triadica sebifera*) with Baccharis (*Baccharis halimifolia*), American elm (*Ulmus americana*), live oak (*Quercus virginiana*), and Hackberry (*Celtis laevigata*) observed as common sub-dominants and associates. The herbaceous area contains Cattails (*Typha* spp.), Sedges (*Carex* & *Cyperus* spp.), Spike rush (*Eleocharis* spp.), Rattlebox (*Sesbania* spp.), Bulltongue arrowhead (*Sagittaria lancifolia*), Millet (*Echinochola crus-galli*), Crowngrass (*Plaspalum* spp.) and Cutgrass (*Zizaniopsis* spp.) as common dominants, sub-dominants and associates.

Existing Wetlands

The initial on-site delineation was performed by Morris P. Hebert, Inc., on behalf of the Sponsor, and the wetland delineation report and supporting maps were submitted to the US New Orleans District (NOD). A wetland delineation report was submitted to the NOD and was approved on December 18, 2013. A copy of the approved USACE Jurisdictional Determination is provided in Attachment D (see sheets 1 through 6).

3.4 Technical Feasibility

There are no known, existing hydrologic disturbances on the site over which the Sponsor does not

have control. The Sponsor does not have control of tidal canals and ditches which has drainage from other lands. The existing Warren Canal and adjoining canals outside the levee system are controlled by the Isle Marrone Drainage District (formerly Drainage District # 13). All other on-site hydrologic conveyances are fully owned and controlled by the landowner.

Based on the information available, the flat topography of the area, and the soil types, the site historically supported herbaceous wetlands (fresh marsh). Depression areas within the site likely maintained wetter herbaceous community types, with longer hydro-period durations prior to ditching. Additionally, standing water on the site historically persisted longer after rainfall events, and slowly dispersed from the south and north across the site. The hydrologic restoration will also increase water storage and hydro-period durations within on-site depressions. The net effect will be increased hydro-period durations able to support the fresh marsh community types and associations proposed for restoration.

4.0 ESTABLISHMENT OF THE MITIGATION BANK

4.1 Site Restoration Plan

The mitigation types proposed will be the re-establishment of herbaceous (fresh marsh) communities. Specified as restoration mitigation, the sponsor proposed to do the following:

1. Re-establish 276.98± acres of herbaceous wetlands (fresh marsh) from prior converted wetlands.
2. Improve 279.89± acres of existing herbaceous wetlands (fresh marsh) of former crawfish areas by rehabilitation with the free exchange of water.
3. Re-establish 1.03 acres of herbaceous wetlands (fresh marsh) from non-wetlands.
4. Re-establish 31.12 acres of herbaceous wetlands (fresh marsh) from roads, levees and drainage ditches/canals.
5. Re-establish 2.55 acres of herbaceous wetlands (fresh marsh) from forest wetlands

Hydrologic Restoration

The three existing stationary pumps, which were used to promote agriculture activities, would be of totally removed from the Bank; likewise the portable irrigation pump will no longer be used in the Bank. The existing fastlands containing fresh marsh, forested wetlands, non-wetlands and prior converted agriculture lands will be connected to the outside water regime via open culverts and removal of all interior levees, canals, and ditches plus the removal of two roads and reduction in size of a third road. All levees will be de-graded except for those along the tidal ditches/canals and in FW # 1 & 3. See Attachment E for locations of proposed culverts and features to be removed. Attachment F shows typical water control structures.

Little Prairie Ranch Mitigation Bank

This free flow of water will allow greater usage of these areas terrestrial and aquatic species which will now have access to additional fresh marsh. The re-establishment of 311.68 ± acres of prior converted wetlands and non-wetland to fresh marsh and the rehabilitation of 279.89 acres of fresh marsh water regime will provide additional wetland acres plus increased habitat for terrestrial and aquatic species. These species will receive the benefit of these improved and additional wetlands for all or part of their life cycle requirements. These measures will facilitate hydrologic restoration of wetlands in the proposed Bank area. Existing canals and ditches from the major and minor drains occur within the property boundary. These water conveyances would be converted back to herbaceous wetlands (fresh marsh) by removing the interior levees, some roads and placing the material back into the conveyances.

Restoration of the tidal exchange is proposed for the existing herbaceous wetlands (fresh marsh), non-wetland and prior converted wetlands through the installation of open culverts in levees and the modification of existing water control structures to being open only plus the removal of interior levees, except levees in FW # 1 & 3 and the removal two roads plus a portion of an existing road. The two existing flap-gated structures in the outer levee would be modified to an open free flowing mode and without the capability of being closed. Additional 36 inch open culverts will be installed in the outer levees with an invert elevation of six inches below marsh level. This elevation was selected to give the full range of normal water level regime which has been recorded for this area.

Vegetative Restoration

The fresh marsh vegetation will be allowed to naturally develop within the prior converted wetlands and non-wetlands since there is a significant existing seed source available adjacent to and within the Bank site.

Herbaceous areas (formerly PC and non-wetland areas) and existing fresh marsh area will have the same water level regime as the adjacent free flowing fresh marsh areas and Warren Canal. Water levels in the existing and proposed fresh marsh will be dependent on the waters maintained within the White Lake/Grand Lake complex which is regulated by several water control structures for purpose of providing irrigation water for agriculture and navigation purposes. It is expected that the water levels and salinities will be very similar to those recorded for CRMS 0572 site which is located about 8,000 feet southeast of the southeast corner of the proposed Bank. The mean water level at this CRMS site is 1.0 foot with a range from 0.08 feet to 6.81 feet. From October 2013 to March 2015 the minimum water level ranged from 0.03 feet to 0.79 feet with a mean of 0.48 feet. In the same time period, the maximum water level ranged from 1.15 feet to 1.79 feet with a mean of 1.59 feet.

HW #1 and 2 will be connected directly with the tidal ditch with the existing 24 inch culverts modified to be open only and the installation of additional open 36 inch culverts plus the removal of

Little Prairie Ranch Mitigation Bank

interior levees, water control structures and canals/ditches, while HW #3 is connected to the same tidal ditch with existing gaps. The interior levees of HW #3 will be removed. These connections will allow the water to be a free flowing system to allow egress and ingress of tidal waters and aquatic organisms into these isolated wetlands. HW # 4 & 5 plus the PC# 10, 11, 12, 13, 14, 15, 16, 17, and 18 will be connected by the removal of all interior water control structures, levees and canals. The three existing pumps in the Bank area will be removed.

Undesirable dominated herbaceous vegetation (fresh marsh) will be managed by burning, mechanical means, and herbicides to control them not eliminate them. The fresh marsh areas have varying elevations which will result in some fresh marsh areas having water levels with higher water depth than other areas. Attachment G shows the land contours based upon LiDAR data from Louisiana State University. These contour variations will provide for diversified and increased usage by aquatic and terrestrial species. The water areas within the fresh marsh could have submerged aquatic species which will also increase usage by waterfowl, wading birds, and amphibians. Table 1 shows the individual acreages of each of the existing herbaceous wetland areas; likewise Table 2 shows the acreages for existing PC areas.

Table 1: Existing Herbaceous Wetlands (Fresh Marsh) Units

Herbaceous Wetland (HW) #	Acres
1	200.0±
2	46.43±
3	11.87±
4	1.42±
5	20.17±
Total	279.89

Table 2: Existing Prior Converted Wetlands (PC) Units

Prior Converted Wetland (PC) #	Total Acres
10	48.52
11	6.24
12	39.64
13	15.51
14	8.62
15	40.62

Little Prairie Ranch Mitigation Bank

16	29.28
17	68.06
18	20.49
Total	276.98

PC areas were determined by the USDA and confirmed in the JD by the CEMVN. At one time 100 percent of the proposed Bank was classed as PC but has changed as agriculture and marketing trends occurred such as with the introduction of crawfish farming.

There are two non-wetland areas which have hydric soils but lack the hydrology and wetland vegetation. Both of these sites will convert to wetland with the free exchange of water and the removal of existing pumps. One of these non-wetland areas (0.50 acres) is located at the eastern end of PC# 11, while the other one (0.53 acres) is located at the southern end of PC#14.

There is no proposed management of Forested Wetlands # 1 and 3 due to their characteristics. Each of these forested areas is small isolated areas and dominated with Chinese Tallow. FW# 1 is 2.5 acres, while FW# 3 is 1.55 acres. The total acres of these two Forested Wetlands are 4.05. These forested wetland sites are isolated from each other and from other forested areas except for FW#1 which is connected to 7.5 ± acres of forest located outside the boundary of the proposed mitigation and on another landowner's property. This outside forested area is predominately Chinese Tallow and is not controlled by the Bank sponsor. Outside the Bank boundary Chinese Tallow are found in scattered groups on all sides of the Bank.

FW#2 is 2.55 acres which is predominately Chinese Tallow located on top of small interior levees in HW #3. Since these levees will be removed, this wetland forest will be modified to a fresh marsh.

All interior levees in the Bank will be removed, except those in FW # 1 & 3, along with the removal of two road/levees and the reduction in size of a third road/levee. The existing north-south road/levee, which is ±4,290 feet in length and ±50 foot wide, on the eastern side of the Bank area will be removed from the northern property line to the intersection of the east-west road near the southern boundary. The material from the road will be placed in adjacent ditches. A road/levee located within HW#1 which runs parallel to the western, southern, northern and eastern outer levees will be removed and the material placed in the adjacent canal. This road is ± 9,991 feet in length and ±20 foot wide with the material placed in adjacent canal. The east-west road along the southern boundary of the Bank will be reduced in size to ± 15 feet in width. This road is ± 3,275 feet in length and ±40 foot wide.

The access route for third parties and the sponsor will remain in place. This route is the road/levee

Little Prairie Ranch Mitigation Bank

along the western and northern boundary of PC #10, the western boundary of HW # 2, the western and southern boundary of PC #15 and a portion of the southern boundary of PC #17. The third parties using this access route is the drainage district and landlocked landowners having property immediately south of the Bank boundary. Also a short north-south road which starts at the eastern end of the east-west road and runs south to the Bank's southern boundary will remain.

Material from all interior levees to be removed will be placed in the adjacent canals/ditches to restore the wetland elevations and create fresh marsh. With the removal of these interior levees and the filling of their adjacent canals/ditches, sheet flow will occur across the area. A small levee will be built along the northern boundary line in PC #11 to prevent waters from entering the adjacent landowner's property. This levee will be six feet wide by 3 feet high and \pm 1,000 feet in length.

Data and information of other similar areas in south Louisiana with protection levees and water control structures that were changed to allow for free flow of the current natural water regime has shown that the areas have, without planting of wetland vegetation, developed into fresh and/or intermediate marshes. The natural occurrence of wetland vegetation re-establishing in the proposed Bank is also noted by the presence of wetlands in former agriculture lands when water was allowed in them as seen in HW # 1, 2, 3, 4 & 5 and FW # 1, 2 & 3. If the proposed Bank fails to achieve the desired percent of cover at target years, the sponsor will develop a vegetation planting plan for approval by the IRT.

Table 3 provides a summary of conversion of habitat types, while Table 4 shows the different types of mitigation per wetland habitat.

Table 3: Existing and Proposed Habitat Little Prairie Ranch Mitigation Bank

Existing Habitat/Acres	Proposed Habitat Type	Amount of Change	Acres
Forested Wetlands/6.6	Forested Wetlands	-2.55	4.05 \pm
Forested Wetland	Herbaceous Wetlands (fresh marsh)	+2.55	2.55 \pm
Herbaceous Wetlands(fresh marsh)/279.89	Herbaceous Wetlands (fresh marsh)	0	279.89 \pm
Prior Converted/276.98	Herbaceous Wetlands (fresh marsh)	+276.98	276.98 \pm
Non-wetland/1.03	Herbaceous Wetlands (fresh marsh)	+1.03	1.03 \pm
Roads, canal, & levee/64.10	Roads, canals, ditches & levees	-31.12	29.08 \pm

Little Prairie Ranch Mitigation Bank

Road, canal, & levee	Herbaceous Wetlands (fresh marsh)	+31.12	31.12±
Total			637.98

Table 4: Mitigation Types - Little Prairie Ranch Mitigation Bank

Habitat Type	Re-establishment Acres	Rehabilitation Acres	Total Acres
Herbaceous Wetlands (Fresh Marsh)	311.68	279.89	591.57±

4.2 Current Site Risk

The Site contains 557.90 acres of non-wetland and PC which can continue to be used for agriculture purposes. However with the proposed passive management, this acreage can become wetlands again and provide an increase in available wetlands within coastal Louisiana plus the additional habitat for aquatic and terrestrial species.

A pipeline corridor crosses the very northwest corner of the area in HW#1 and does not affect the passive management of the proposed Bank.

4.3 Long-term Sustainability of the Site

Data from the CRMS site indicates that salinities and water levels are very favorable for fresh marsh development and for sustaining fresh marsh flora and fauna species in the Bank with the free exchange of water regime as the existing fresh marsh outside of the Bank via passive management of water exchange. Should the target percentage of fresh marsh vegetation cover not be achieved by the respective target year, the sponsor will submit a re-vegetation plan to the IRT for approval.

5.0 PROPOSED SERVICE AREA

The proposed primary service area will cover all areas located within Mermentau Watershed Unit 08080202, while the secondary service area will cover the Lower Calcasieu Watershed 08080206 and Vermilion Watershed 08080101, as depicted in Figure 3.

Beyond the area as herein described, the purchase of mitigation credits from the proposed Bank will be determined by the CEMVN and LDNR/OCM on a case by case basis.

6.0 OPERATION OF THE MITIGATION BANK

6.1 Project Representatives

Little Prairie Ranch Mitigation Bank

Sponsor: Little Prairie Ranch Mitigation Bank, L.L.C.
300 Rue Beauregard Suite A
Lafayette, LA 70510
Bart Bellaire
Phone: 337-233-4774

Agent: Horace Thibodaux, Sr. Env. Project Manager
Aux, LLC
aux-la@charter.net
Phone: 985-387-0161

Fred Dunham
KourCo Environmental Services Inc.
3131 Cameron Street
Lafayette, LA 70506
fdunham@kourco.com
Phone: 337-257-6107

Landowner: Olivia Rae Farms, L.L.C.
300 Rue Beauregard Suite A
Lafayette, LA 70510
Bart Bellaire
Phone: 337-233-4774

6.2 Qualifications of the Sponsor

Mr. Bellaire has managed property for over twenty years. He is knowledgeable of the requirements of managing a mitigation Bank, managing wetlands for wildlife resources and the maintaining of wetland resources.

Mr. Thibodaux and Dunham have over eighty years of combined experience with wetlands, wetland mitigation, and mitigation Banks.

6.3 Proposed Long-Term Ownership and Management Representatives

The subject surface property is owned fee simple by Olivia Rae Farms, L.L.C. The mineral rights are shared by Olivia Rae Farms, L.L.C. and a third party who is not a part of this proposal. A pipeline corridor crosses the very northwest corner of the area in HW#1 and does not affect the passive management of the proposed Bank. All project construction, monitoring and management will be conducted by Mr. Bart Bellaire with Little Prairie Ranch Mitigation Bank, L.L.C. (LPRMB).

6.4 Site Protection

Long-term protection will be preferred under the conservation easement agreement. Olivia Rae

Little Prairie Ranch Mitigation Bank

Farms, L.L.C. is proposing to use a Letter of Credit form of financial assurance and maintenance for the short term construction (1 to 15 years) and proposes to use a long term escrow account for the long term financial requirements.

In the event that Little Prairie Ranch Mitigation Bank, L.L.C. or the Long-Term Steward are found to be in non-compliance by the CEMVN or IRT, the responsible party will institute a CEMVN and IRT approved adaptive management plan and submit a written corrective action plan to the CEMVN and IRT for review and approval. The corrective action plan will, at a minimum, identify the cause of the non-compliance, the remedial measures necessary, and a time line for implementing remedial measures to bring the Little Prairie Ranch Mitigation Bank, L.L.C. into compliance. To the extent practicable, the CEMVN and IRT will approve or disapprove the corrective action plan within forty-five (45) days of receipt, provided that sufficient information and acceptable measures are contained within the plan.

In the event that Little Prairie Ranch Mitigation Bank, L.L.C. or the Long-Term Steward is placed in non-compliance and either does not provide the adaptive management plan or does not implement the features of the corrective action plan within the time frame specified by the CEMVN and IRT, all or a portion of the funds in the escrow account will be released to a third party designated by the CEMVN or IRT at the time of default to effect necessary corrections or acquire equivalent ecological value elsewhere.

6.5 LONG TERM STRATEGY

The landowner Olivia Rae Farms, L.L.C., will be the initial designated Long-Term Steward charged with long-term management and maintenance responsibility once the permitted long term success criteria are attained. The Long-Term Steward may be the recipient of the Long-Term Management Fund for use in addressing catastrophic events or land management requirements once all monitoring is completed.

Monitoring Plan

MONITORING REPORTS:

- 1) The Monitoring Report for fresh marsh wetlands shall:
 - a. Identify colonization by volunteer herbaceous species. Results of vegetation survey including visual estimates of percentage (%) overall cover, species diversity, % exotic vegetation, total % “facultative” and total % “upland” species, an estimate of natural re-vegetation, and a qualitative estimate of plant vigor as measured by evidence of reproduction.
 - b. Discuss the general health of the herbaceous species.

- c. Describe the vegetative communities developing within and the overall condition of the Site.
 - d. Describe wildlife usage.
 - e. Summarize the condition of the Restoration and Rehabilitation Areas.
 - f. Identify maintenance activities performed.
- 2) Document measures to control exotic/invasive vegetation colonization/establishment
- 3) Schedule of Monitoring Reports:
- a. Vegetative monitoring and reports shall be completed in the spring (when new growth makes identification practicable) of years 1, 3, 5, 10, 15.
 - b. If Year 1 success criteria is obtained, but all performance criteria have not been met in the 5th year, a Monitoring Report shall be required for each consecutive year until two sequential Annual Reports indicate that all criteria have been successfully satisfied (i.e., that corrective actions were successful).
- c. Reports discussing measures to control exotic/invasive vegetation shall be provided annually until such time as all Initial Success Criteria and Interim Success Criteria have been met and verified by the IRT. The Annual Reports should document items such as degree of exotic/invasive vegetation, method of treatment/control, machinery and/or chemical treatments utilized, timing of treatments/work, effectiveness of previous treatments/work, etc.
- d. Reports will be submitted by December 31st of each monitoring year.
 - e. Monitoring reports shall be provided to CEMVN.

Maintenance Plan

Semi-annual surveying and treatment of nuisance/exotic species and undesirable will be performed by means of mechanical, burning and/or chemical control. Additionally, low-intensity prescribed fires may be conducted to control competing nuisance/exotic herbaceous and woody vegetation and provide an immediate nutrient source. Inspection of all culverts and gaps in the Bank for erosion or instability will also be performed during each annual monitoring event, and repair/stabilization will be conducted as necessary.

7.0 REFERENCES

- Buol, S.W., R.D. Hole, R.J. McCracken and R.J. Southard. 1997. Soil Genesis and Classification, Fourth Edition. Iowa State University Press: Ames, Iowa.
- Louisiana Department of Wildlife and Fisheries, Natural Heritage Program. 2004. *The Natural Communities of Louisiana*. Natural Heritage Program. URL: : <http://www.wlf.louisiana.gov/experience/naturalheritage/naturalcommunities/ncfactsheet.s.cfm>. Accessed June 8, 2009.
- Louisiana Department of Wildlife and Fisheries, Natural Heritage Program. 2008. *Rare, Threatened, & Endangered Species & Natural Communities Tracked by the Louisiana Natural Heritage Program East Baton Rouge Parish - April 2008*. Natural Heritage Program. URL: <http://www.wlf.louisiana.gov/pdfs/experience/naturalheritage/east%20baton%20rouge.pdf>. Accessed June 8, 2009.
- Louisiana Office of Coastal Protection and Restoration and the U.S. Geological Survey. Coastwide Reference Monitoring System (CRMS) CRMS0572. http://lacoast.gov/crms_viewer2/Default.aspx#, Accessed April 21, 2015
- Petrides, G.A. and J. Wehr. 1988. Peterson Field Guide Series, A Field Guide to Eastern Trees: Eastern United States and Canada, including the Midwest. Houghton-Mifflin Company: New York, NY.
- Richardson, J.L. and M.J. Vespraskas. 2001. Wetland Soils: Genesis, Hydrology, Landscapes and Classification. Lewis Publishers: Boca Raton, Florida.
- Natural Resources Conservation Service, 2009. *National Hydric Soils List by State, Louisiana*. U.S. Department of Agriculture, Natural Resources Conservation Service, Soil Survey Staff. URL: <http://soils.usda.gov/use/hydric/lists/state.html>. Accessed June 8, 2009.
- Natural Resources Conservation Service. 2009. *Soil Survey of Vermilion Parish, Louisiana*. U.S. Department of Agriculture, Natural Resources Conservation Service, Soil Survey Staff. URL: http://www.nrcs.usda.gov/internet/FSE_MANUSCRIPTS/louisiana/LA113/vermilion.pdf
- United States Army Corps of Engineers. 1987. *Corps of Engineers Wetland Delineation Manual*. USACE Waterways Experiment Station Technical Report Y-87-1.
- United States Army Corps of Engineers, 2007. *Interim Regional Supplement to the Corps of Engineers Wetland Delineation manual: Atlantic and Gulf Coastal Plain Region*. Ed. J. S Wakeley, R.W. Lichvar, and C.V. Noble. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

Little Prairie Ranch Mitigation Bank

United States Geological Survey. 1986. *Land Use and Land Cover Digital Data from 1:250,000- and 1:100,000- Scale Maps, Data Users Guide 4*. Reston, Virginia.

ATTACHMENT A



1940 Aerial Photo of Proposed Little Prairie Mitigation Bank Area
Mitigation Bank Boundary marked in red

0 ————— 2,000 feet





1964 Aerial Photo Proposed Little Prairie Mitigation Bank

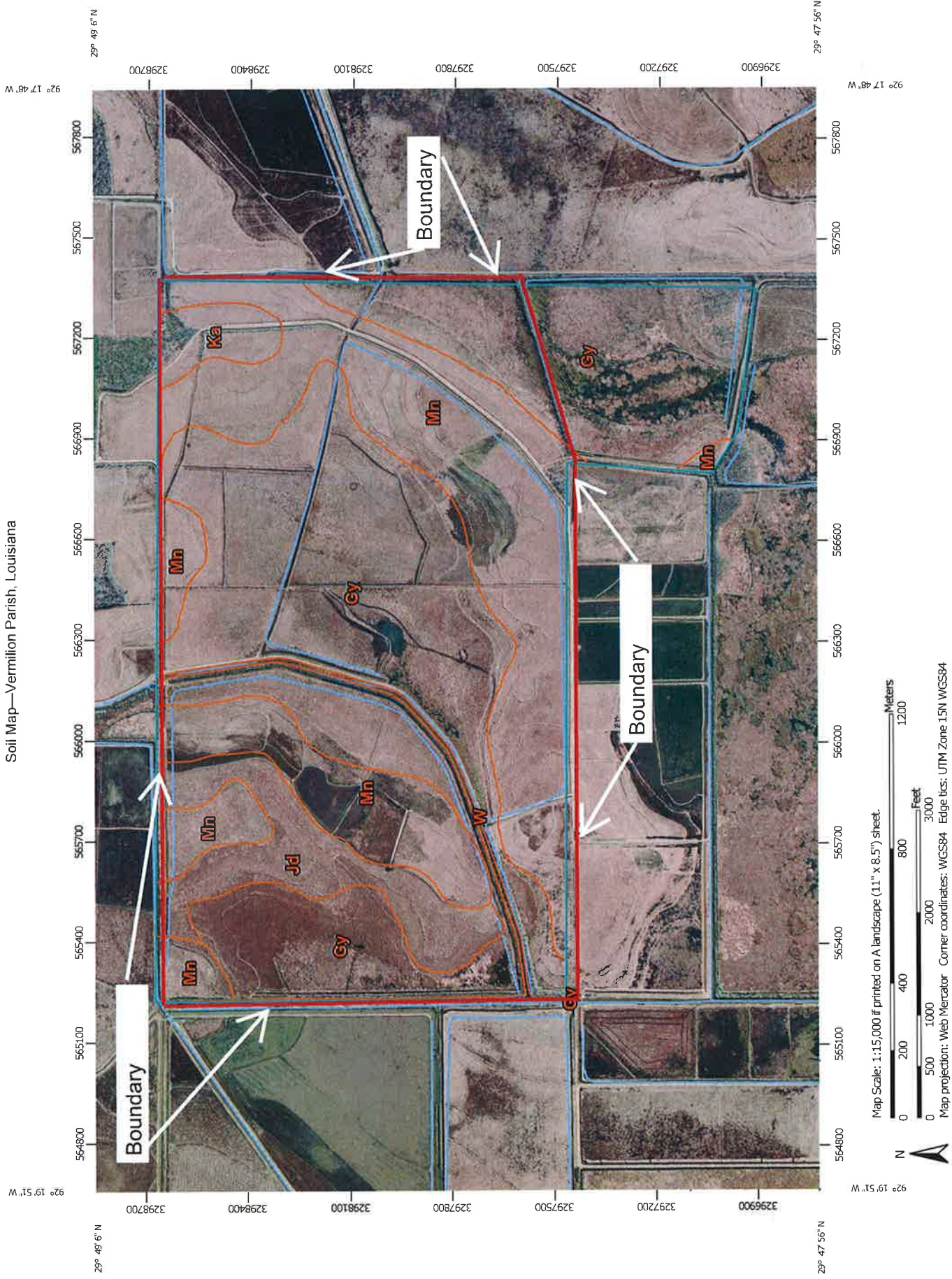
Bank Boundary in red

0 ————— 2,000 feet



ATTACHMENT B

Soil Map—Vermilion Parish, Louisiana



Map Scale: 1:15,000 if printed on A landscape (11" x 8.5") sheet.

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

MAP LEGEND

- Area of Interest (AOI)
- Area of Interest (AOI)
- Soils**
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points
- Special Point Features**
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodict Spot

- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features
- Water Features**
- Streams and Canals
- Transportation**
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads
- Background**
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

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

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

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

Soil Survey Area: Vermilion Parish, Louisiana
 Survey Area Data: Version 11, Dec 9, 2013

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

Date(s) aerial images were photographed: Mar 3, 2010—Jan 7, 2011

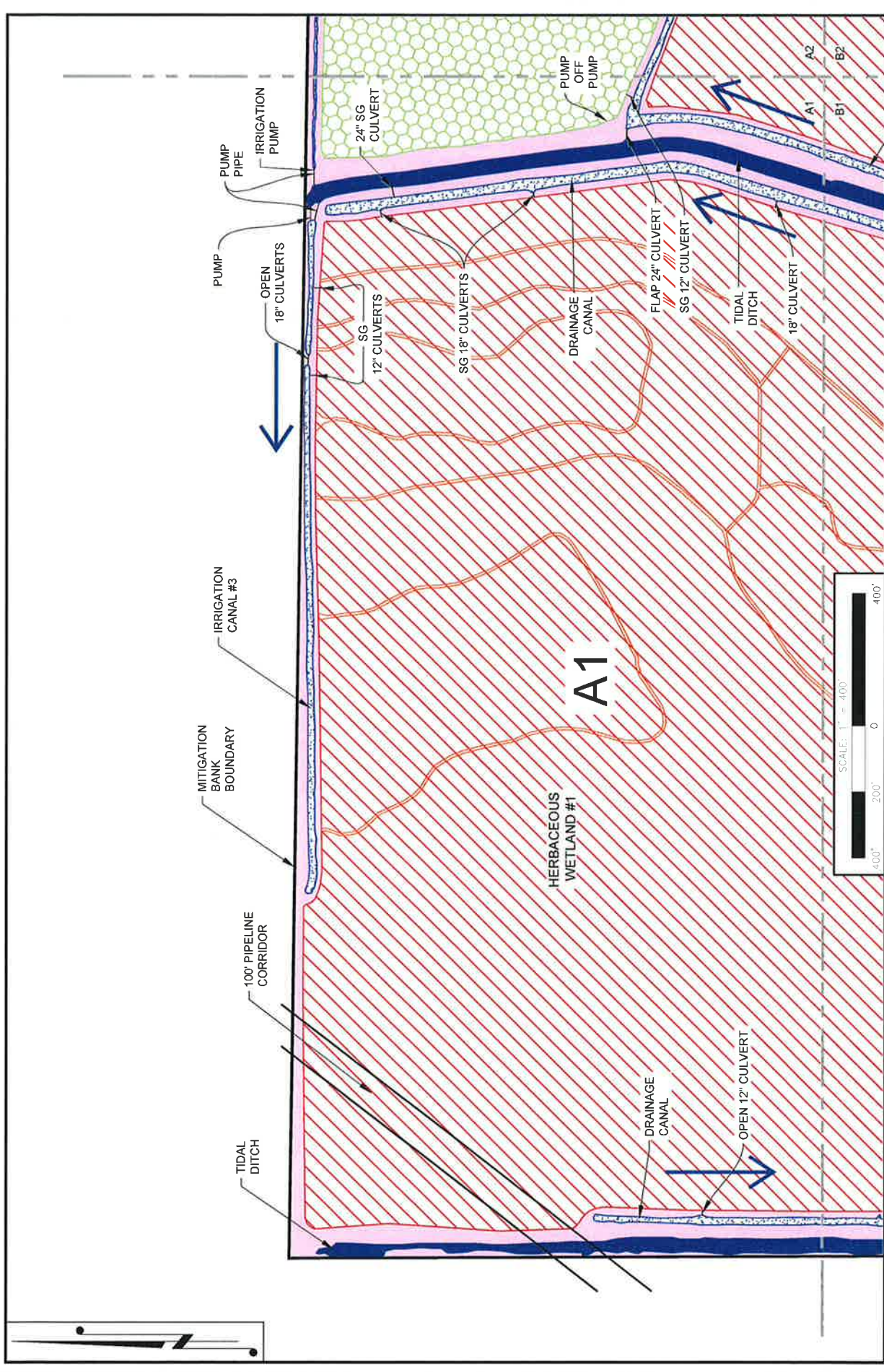
The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Vermilion Parish, Louisiana (LA113)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Gy	Gueydan muck	385.9	54.5%
Jd	Judice silty clay loam	54.9	7.8%
Ka	Kaplan silt loam	15.9	2.2%
Mn	Midland silty clay loam	244.8	34.6%
W	Water, large	6.7	1.0%
Totals for Area of Interest		708.3	100.0%

ATTACHMENT C

PLAN VIEW
LITTLE PRAIRIE RANCH
 FIGURE 5
 VERMILION PARISH, LOUISIANA
 EXISTING



NOTE:
 SG CULVERT = SLUICE GATE CULVERT
 BB CULVERT = BRUCE BROWN CULVERT
 FG = FLAPGATE CULVERT
 O = OPEN CULVERT

FORRESTED WETLANDS (6.60± ACRES)
 IRRIGATION CANALS (SEC 10-404) (13.83± ACRES)
 TIDAL DITCHES (SEC 10/404) (9.38± ACRES)
 NON-WETLANDS (1.03± ACRES)
 WETLAND BOUNDARY (637.98± ACRES)

WETLANDS (279.88± ACRES)
 PRIOR CONVERTED WETLANDS (276.98± ACRES)
 ROADS / LEVEES (60.27± ACRES)
 HARD WOODS TO BE PLANTED (0.00± ACRES)

WETLANDS (279.88± ACRES)
 PRIOR CONVERTED WETLANDS (276.98± ACRES)
 ROADS / LEVEES (60.27± ACRES)
 HARD WOODS TO BE PLANTED (0.00± ACRES)

NOTES: THIS MAP IS NOT TO SCALE AND IS TO BE USED FOR VISUAL AID ONLY. THESE PLATS ARE USED FOR PERMITTING PURPOSES ONLY.



SCALE: 1" = 400'

0 200' 400'

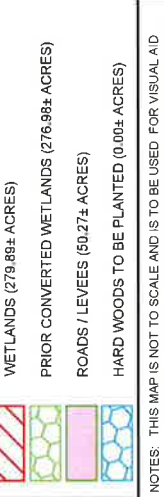
A2
PLAN VIEW
LITTLE PRAIRIE RANCH
 FIGURE 5
 VERMILION PARISH, LOUISIANA
 EXISTING

NOTE:
 SG CULVERT = SLUICE GATE CULVERT
 BB CULVERT = BRUCE BROWN CULVERT
 FG = FLAPGATE CULVERT
 O = OPEN CULVERT

FORESTED WETLANDS (6.60± ACRES)
 IRRIGATION CANALS (SEC 10/404) (13.83± ACRES)
 TIDAL DITCHES (SEC 10/404) (9.38± ACRES)
 NON-WETLANDS (1.03± ACRES)
 WETLAND BOUNDARY (637.98± ACRES)

WETLANDS (279.88± ACRES)
 PRIOR CONVERTED WETLANDS (276.98± ACRES)
 ROADS / LEVEES (50.27± ACRES)
 HARD WOODS TO BE PLANTED (0.00± ACRES)

NOTES: THIS MAP IS NOT TO SCALE AND IS TO BE USED FOR VISUAL AID ONLY. THESE PLATS ARE USED FOR PERMITTING PURPOSES ONLY.



B1
PLAN VIEW
LITTLE PRAIRIE RANCH
FIGURE 5
VERMILION PARISH, LOUISIANA
EXISTING

NOTE:
 SG CULVERT = SLUICE GATE CULVERT
 BB CULVERT = BRUCE BROWN CULVERT
 FG = FLAPGATE CULVERT
 O = OPEN CULVERT

EXISTING SMALL INTERIOR LEVEES

FLOW

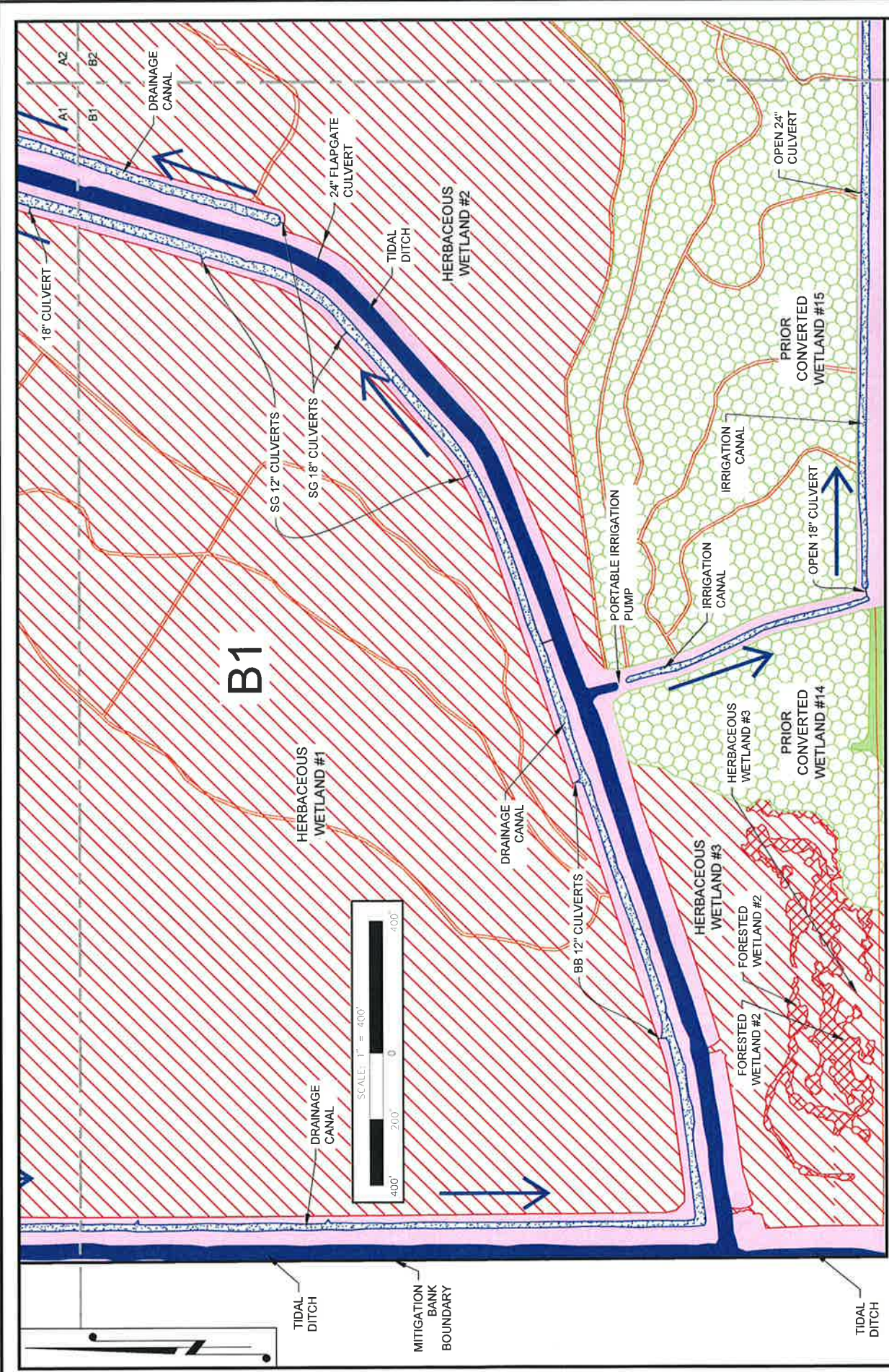
FORESTED WETLANDS (6.60± ACRES)
 IRRIGATION CANALS (SEC 10-404) (13.83± ACRES)
 TIDAL DITCHES (SEC 10/404) (9.98± ACRES)
 NON-WETLANDS (1.03± ACRES)
 WETLAND BOUNDARY (637.98± ACRES)

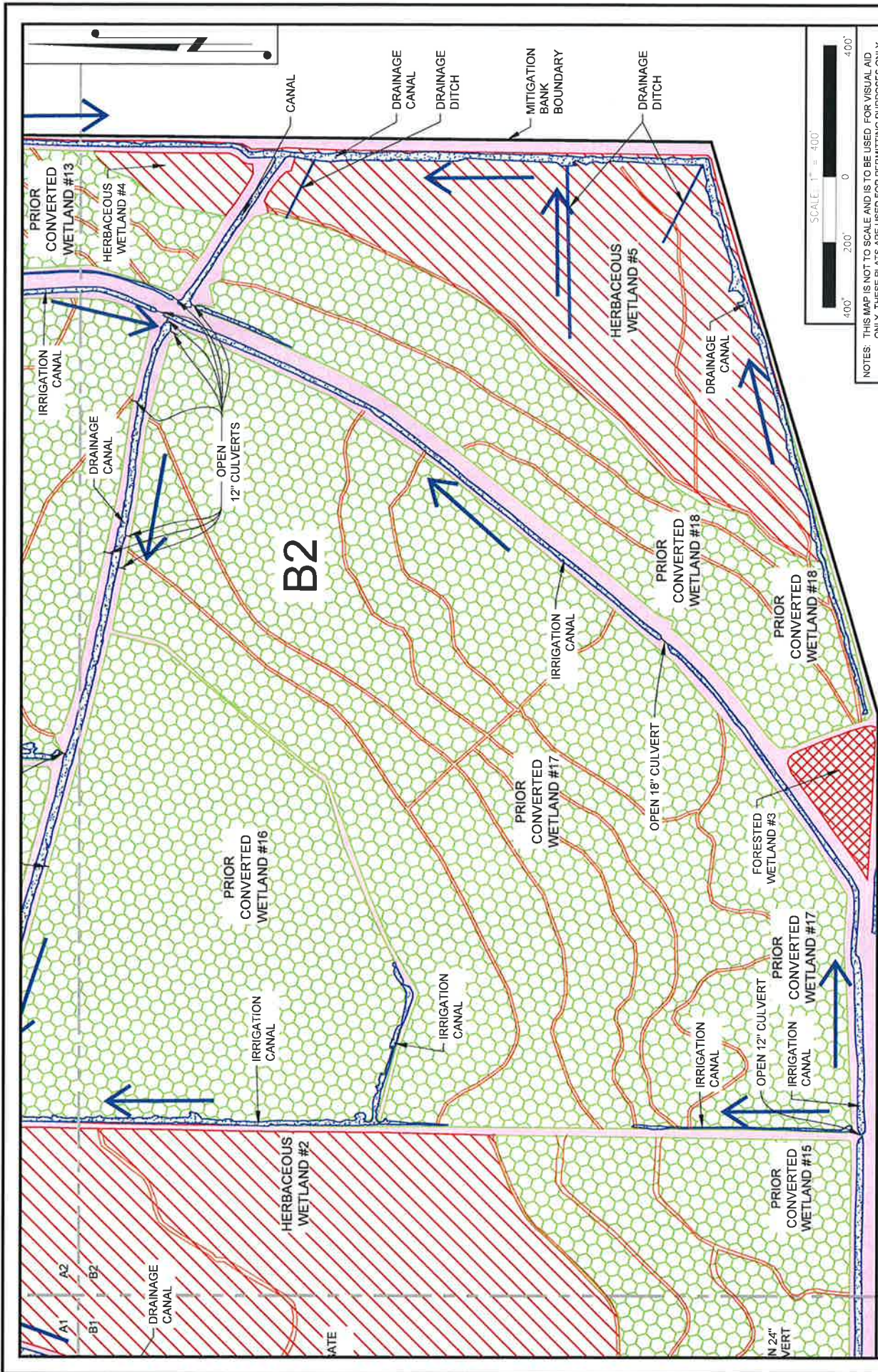
WETLANDS (279.88± ACRES)
 PRIOR CONVERTED WETLANDS (276.98± ACRES)
 ROADS / LEVEES (50.27± ACRES)
 HARD WOODS TO BE PLANTED (0.00± ACRES)

WETLANDS (279.88± ACRES)
 PRIOR CONVERTED WETLANDS (276.98± ACRES)
 ROADS / LEVEES (50.27± ACRES)
 HARD WOODS TO BE PLANTED (0.00± ACRES)

WETLANDS (6.60± ACRES)
 IRRIGATION CANALS (SEC 10-404) (13.83± ACRES)
 TIDAL DITCHES (SEC 10/404) (9.98± ACRES)
 NON-WETLANDS (1.03± ACRES)
 WETLAND BOUNDARY (637.98± ACRES)

NOTES: THIS MAP IS NOT TO SCALE AND IS TO BE USED FOR VISUAL AID ONLY. THESE PLATS ARE USED FOR PERMITTING PURPOSES ONLY.





SHEET
5 OF **5**
B2
PLAN VIEW
LITTLE PRAIRIE RANCH
FIGURE 5
VERMILION PARISH, LOUISIANA
EXISTING

NOTE:
 SG CULVERT = SLUICE GATE CULVERT
 BB CULVERT = BRUCE BROWN CULVERT
 FG = FLAPGATE CULVERT
 O = OPEN CULVERT
 EXISTING SMALL INTERIOR LEVEES
 FLOW

FORESTED WETLANDS (6.60± ACRES)
 IRRIGATION CANALS (SEC 10-40A) (13.83± ACRES)
 TIDAL DITCHES (SEC 10/404) (9.38± ACRES)
 NON-WETLANDS (1.03± ACRES)
 WETLAND BOUNDARY (637.98± ACRES)

WETLANDS (279.89± ACRES)
 PRIOR CONVERTED WETLANDS (276.98± ACRES)
 ROADS / LEVEES (60.27± ACRES)
 HARD WOODS TO BE PLANTED (0.00± ACRES)

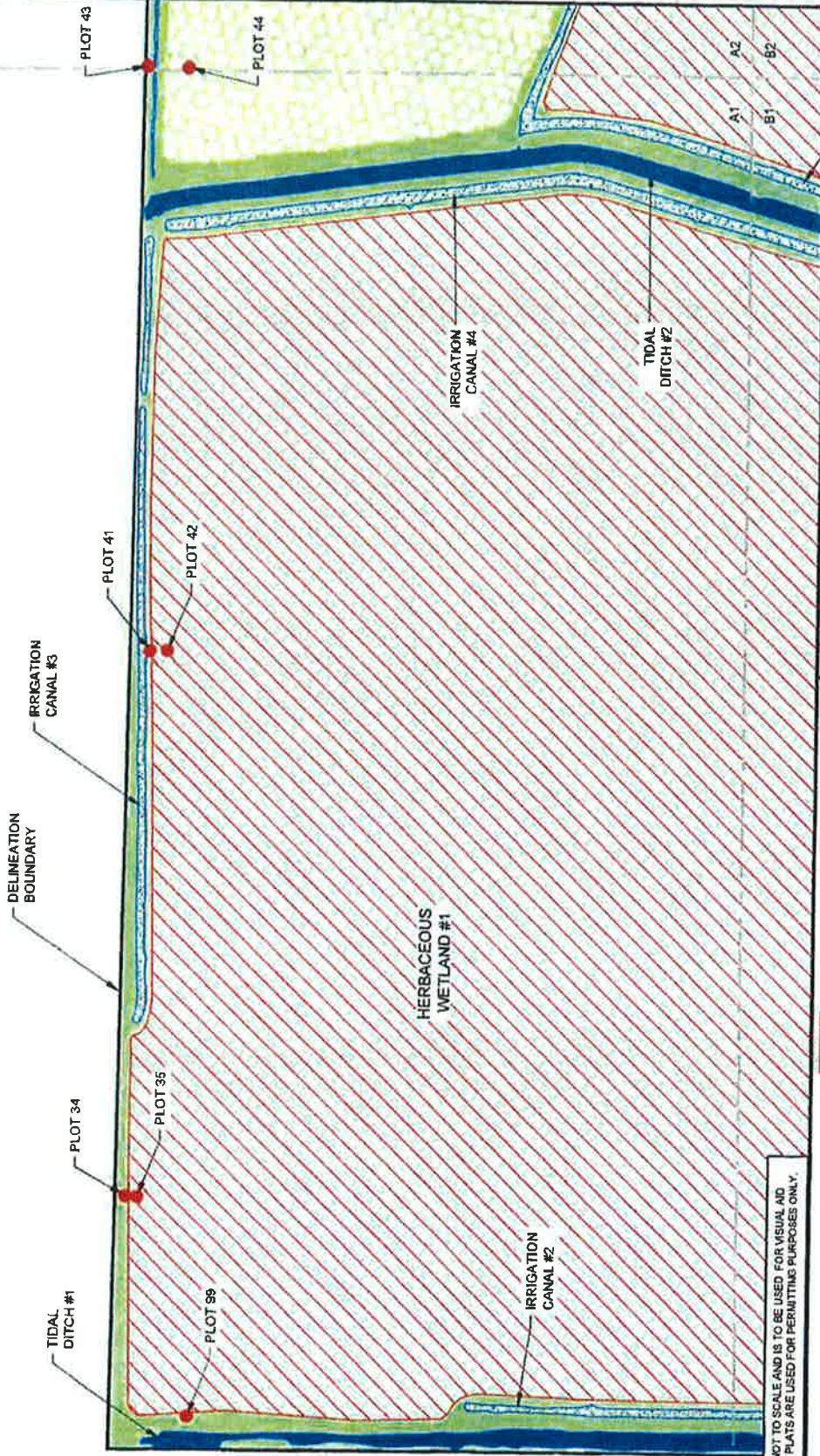
THIS MAP IS NOT TO SCALE AND IS TO BE USED FOR VISUAL AID ONLY. THESE PLATS ARE USED FOR PERMITTING PURPOSES ONLY.

ATTACHMENT D

**USACE Acct. # MVN-2013-01087-SC
MAP 1 OF 15**

For J. Koury, KourCo Environmental Services obo
Little Prairie Ranch.
Lat. 29.798168, Long. -92.311117
ih 11-29-13 gmc

**PRELIMINARY
JURISDICTIONAL DETERMINATION**



**PLAN VIEW
LITTLE PRAIRIE RANCH
WETLAND DELINEATION
VERMILION PARISH, LOUISIANA**

WETLANDS (1,101.38± ACRES) SEC 404
PRIOR CONVERTED WETLANDS (592.04± ACRES)
NONWETLAND

FORESTED WETLANDS (65.40± ACRES) SEC 404
IRRIGATION CANALS (SEC 404) (29,37± ACRES)
TIDAL DITCHES (SEC 104/04) (24.65± ACRES)
UPLANDS (286.12± ACRES)
WETLAND BOUNDARY (2,101.96± ACRES)

NOTES: THIS MAP IS NOT TO SCALE AND IS TO BE USED FOR VISUAL AID ONLY. THESE PLATS ARE USED FOR PERMITTING PURPOSES ONLY.

SCALE: 1" = 100'

SHEET 1 OF 15

**USACE Acct. # MVN-2013-01087-SC
MAP 2 OF 15**

For J. Koury, KourCo Environmental Services obo
Little Prairie Ranch.
Lat. 29.798168, Long. -92.311117
ih 11-29-13 gmc

**PRELIMINARY
JURISDICTIONAL DETERMINATION**



SHEET **2** OF **15**

A2
PLAN VIEW
LITTLE PRAIRIE RANCH
WETLAND DELINEATION
VERMILION PARISH, LOUISIANA

FORESTED WETLANDS (65,40± ACRES)	SEC 404
IRRIGATION CANALS (SEC 404) (29,37± ACRES)	
TIDAL DITCHES (SEC 10404) (24,66± ACRES)	
UPLANDS (289,12± ACRES)	
WETLAND BOUNDARY (2,101,96± ACRES)	



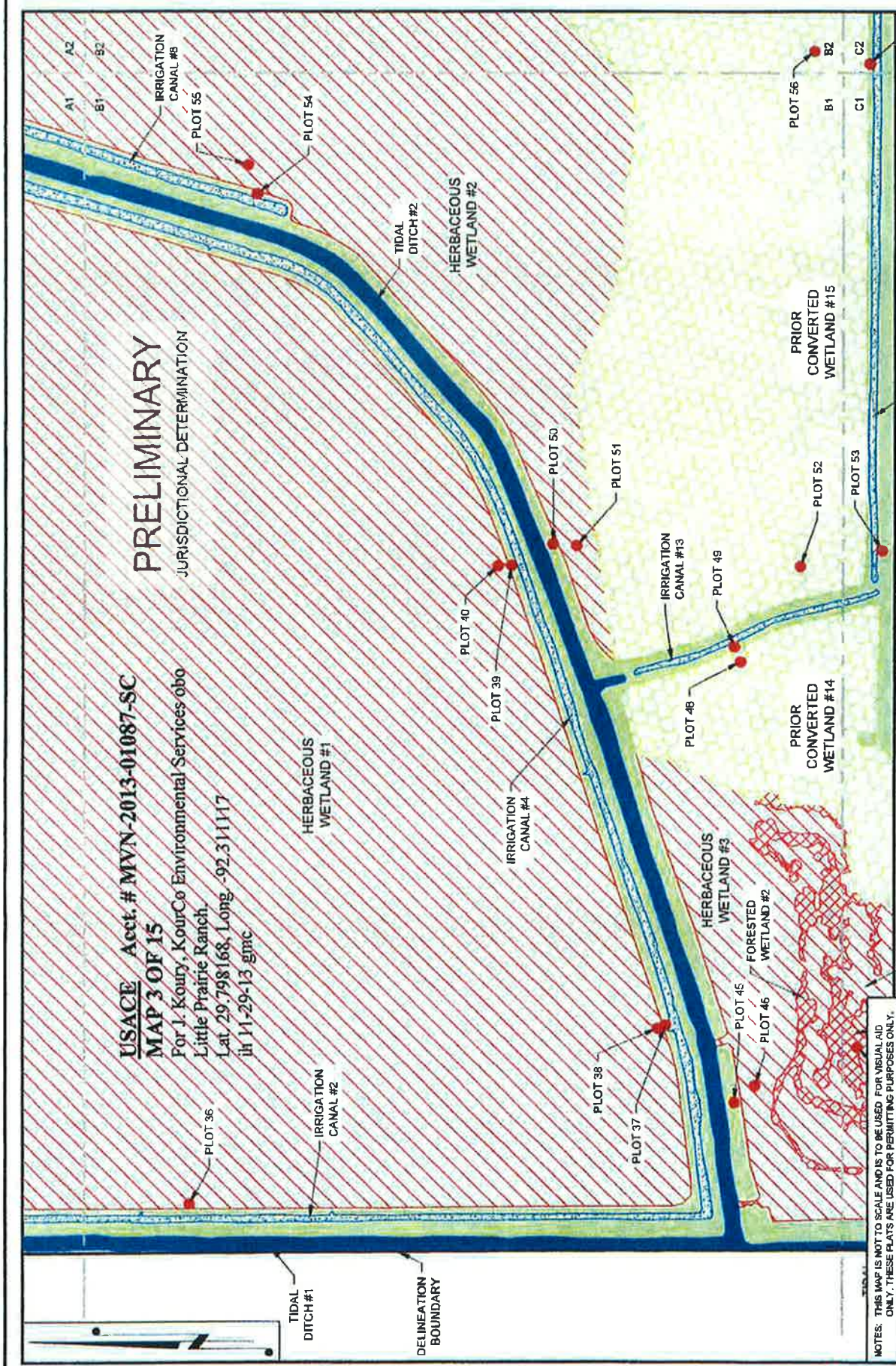
NOTES: THIS MAP IS NOT TO SCALE AND IS TO BE USED FOR VISUAL AID ONLY. THESE PLATS ARE USED FOR PERMITTING PURPOSES ONLY.



USACE Acct. # MVN-2013-01087-SC
MAP 3 OF 15

For J. Koury, KourCo Environmental Services obo
 Little Prairie Ranch,
 Lat. 29.798168, Long. -92.311117
 ih 11-29-13 gmc

PRELIMINARY
 JURISDICTIONAL DETERMINATION

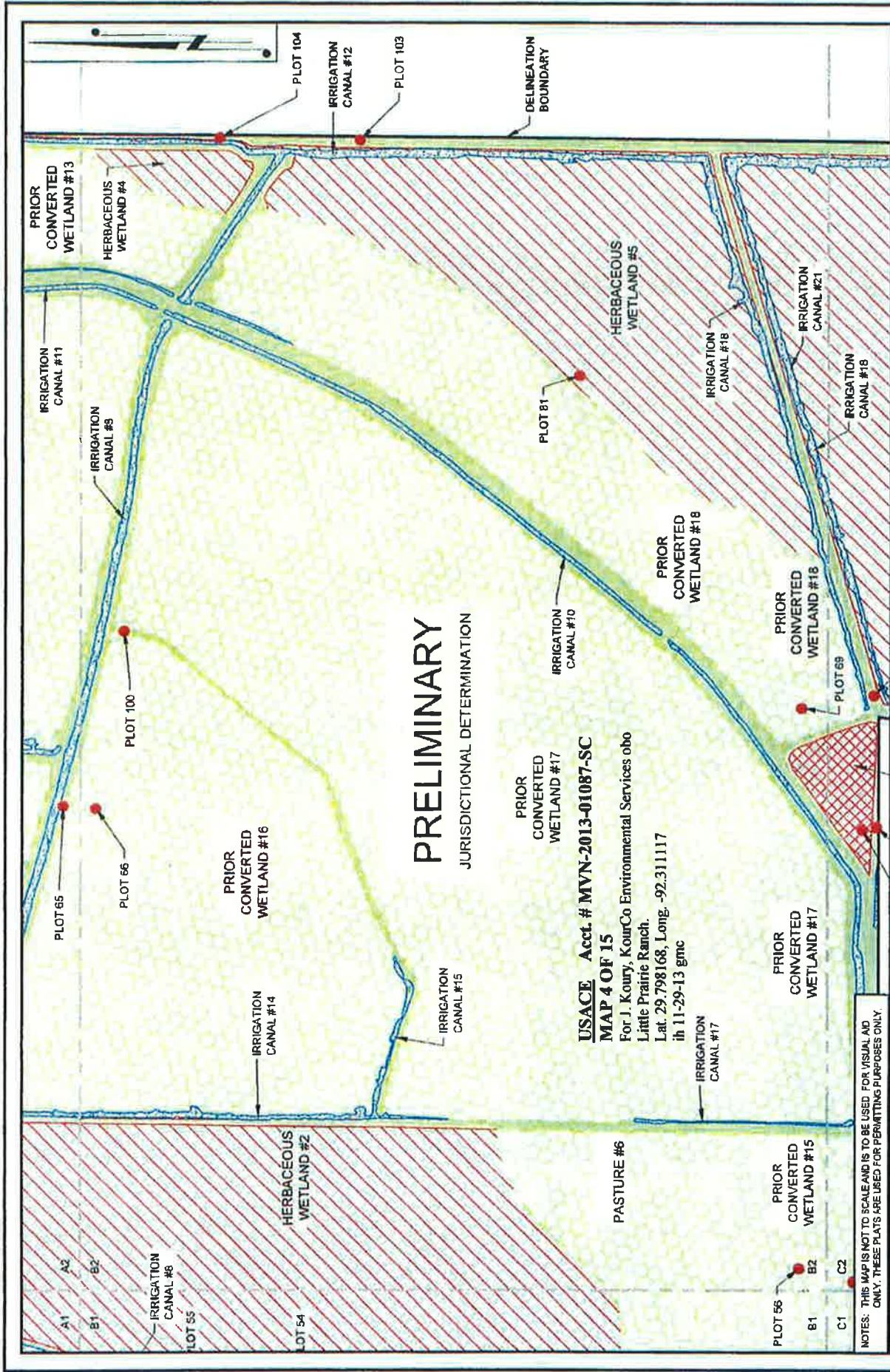


NOTES: THIS MAP IS NOT TO SCALE AND IS TO BE USED FOR VISUAL AID ONLY. THESE PLATS ARE USED FOR PERMITTING PURPOSES ONLY.

B1
PLAN VIEW
LITTLE PRAIRIE RANCH
 WETLAND DELINEATION
 VERMILION PARISH, LOUISIANA

- FORESTED WETLANDS (65.40± ACRES) SEC 404
- IRRIGATION CANALS (SEC 404) (26.37± ACRES)
- TIDAL DITCHES (SEC 10/404) (24.65± ACRES)
- UPLANDS (289.12± ACRES)
- WETLAND BOUNDARY (2,101.96± ACRES)

- WETLANDS (1,101.38± ACRES) SEC 404
- PRIOR CONVERTED WETLANDS (582.04± ACRES) NONWETLAND



PRELIMINARY
 JURISDICTIONAL DETERMINATION

USACE Acct. # MVN-2013-01087-SC
MAP 4 OF 15
 For J. Koury, KourCo Environmental Services obo
 Little Prairie Ranch.
 Lat. 29.798168, Long. -92.311117
 ih 11-29-13 gmc

SHEET **4** OF **15**

B2
PLAN VIEW
LITTLE PRAIRIE RANCH
 WETLAND DELINEATION
 VERMILION PARISH, LOUISIANA

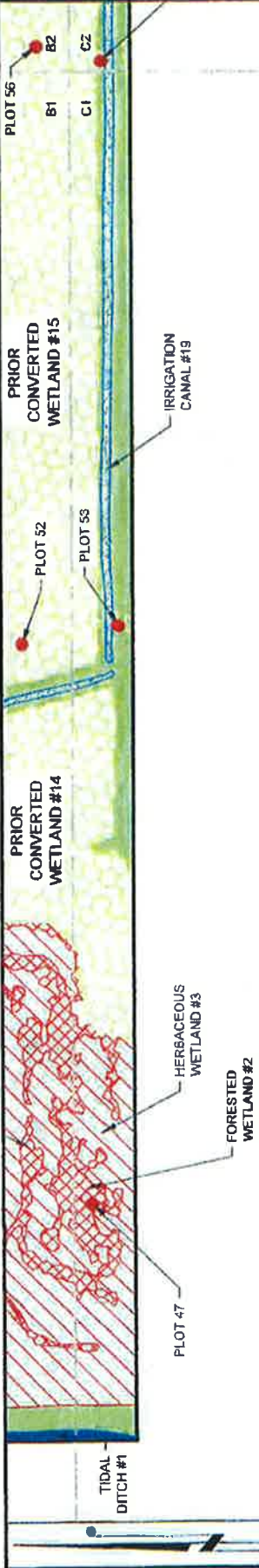
- FORESTED WETLANDS (65.40± ACRES) SEC 404
- IRRIGATION CANALS (SEC 404) (29.37± ACRES)
- TIDAL DITCHES (SEC 10404) (24.65± ACRES)
- UPLANDS (288.12± ACRES)
- WETLAND BOUNDARY (2.101.58± ACRES)



- WETLANDS (1,101.36± ACRES) SEC 404
- PRIOR CONVERTED WETLANDS (592.04± ACRES) NONWETLAND

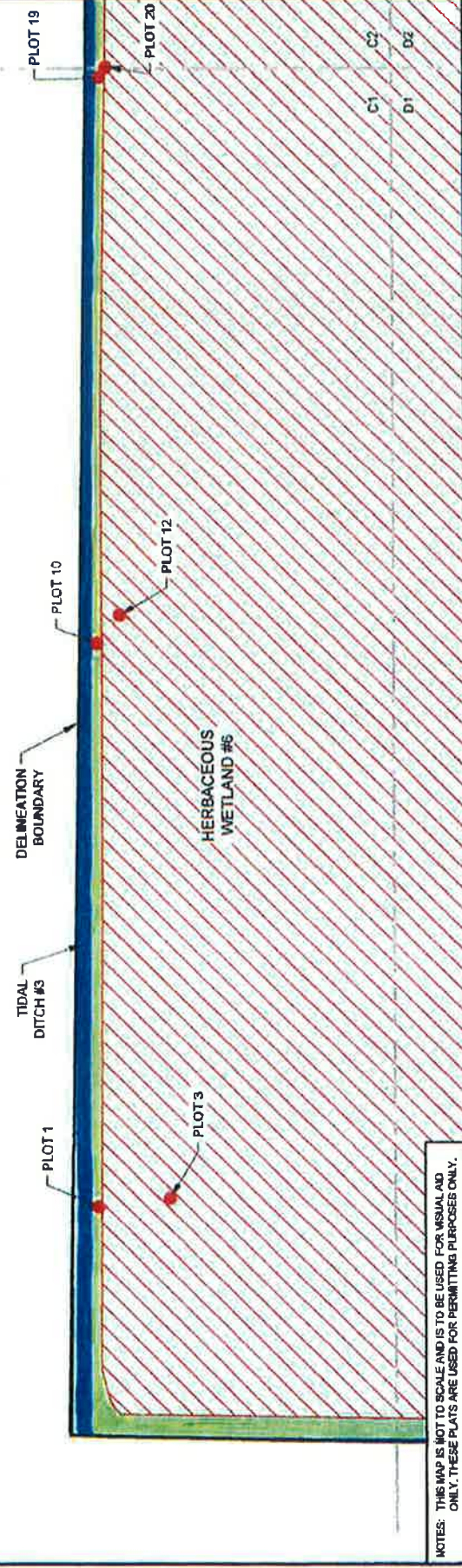


NOTES: THIS MAP IS NOT TO SCALE AND IS TO BE USED FOR VISUAL AID ONLY. THESE PLATS ARE USED FOR PERMITTING PURPOSES ONLY.



PRELIMINARY JURISDICTIONAL DETERMINATION

USACE Acct. # MVN-2013-01087-SC
MAP 5 OF 15
 For J. Koury, KourCo Environmental Services obo
 Little Prairie Ranch.
 Lat. 29.798168, Long. -92.311117
 ih 11-29-13 gmc



NOTES: THIS MAP IS NOT TO SCALE AND IS TO BE USED FOR VISUAL AID ONLY. THESE PLATS ARE USED FOR PERMITTING PURPOSES ONLY.

	WETLANDS (1,101.36± ACRES) SEC 404
	PRIOR CONVERTED WETLANDS (582.04± ACRES)
	NONWETLAND

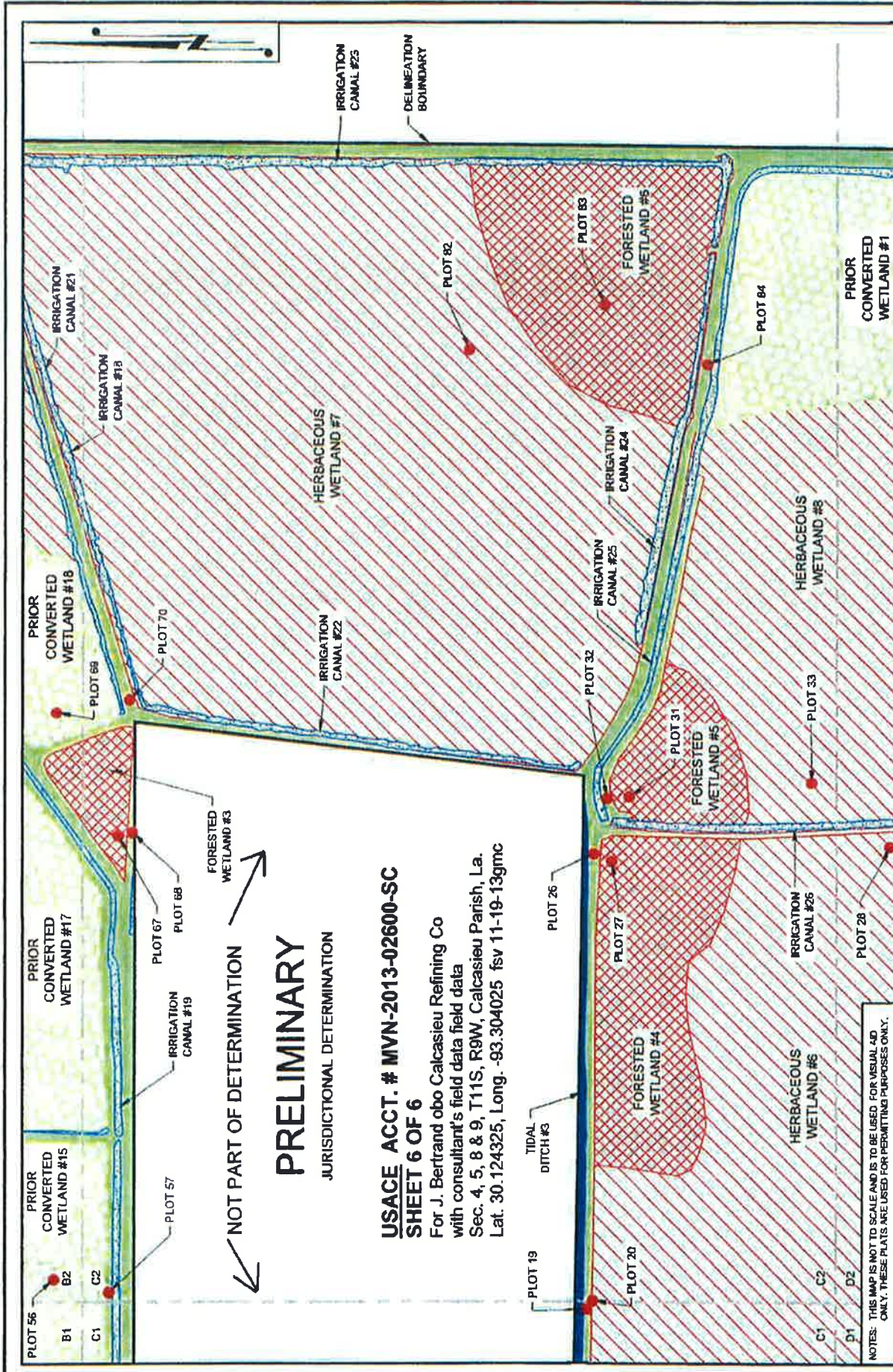
SCALE: 1" = 300'

	FORESTED WETLANDS (65.48± ACRES) SEC 404
	IRRIGATION CANALS (SEC 404) (25.37± ACRES)
	TIDAL DITCHES (SEC 10404) (24.65± ACRES)
	UPLANDS (288.12± ACRES)
	WETLAND BOUNDARY (2,101.96± ACRES)

PLAN VIEW

LITTLE PRAIRIE RANCH

WETLAND DELINEATION
VERMILION PARISH, LOUISIANA



← NOT PART OF DETERMINATION

PRELIMINARY

JURISDICTIONAL DETERMINATION

USACE ACCT. # MVN-2013-02600-SC
SHEET 6 OF 6

For J. Bertrand obo Calcasieu Refining Co
 with consultant's field data
 Sec. 4, 5, 8 & 9, T11S, R9W, Calcasieu Parish, La.
 Lat. 30.124325, Long. -93.304025 fsv 11-19-13gmc

NOTES: THIS MAP IS NOT TO SCALE AND IS TO BE USED FOR VISUAL AID ONLY. THESE PLATS ARE USED FOR PERMITTING PURPOSES ONLY.

WETLANDS (1 101.3ac) SEC. 404
 PRIOR CONVERTED WETLANDS (592.0ac) SEC. 404
 NONWETLAND

FORESTED WETLANDS (65.4ac) SEC. 404
 IRRIGATION CANALS (SEC 10-404) (29.37ac)
 TIDAL DITCHES (SEC 404) (24.65ac)
 UPLANDS (288.12ac)
 WETLAND BOUNDARY (2 101.56ac) SEC. 404

0 200 400
 0 100 200

PLAN VIEW

LITTLE PRAIRIE RANCH

WETLAND DELINEATION
 VERMILION PARISH, LOUISIANA

ATTACHMENT E

PAGE	ROADS / LEVEES (±ACRES)	WETLANDS (± ACRES)	PRIOR CONVERTED WETLANDS (± ACRES)	FORESTED WETLANDS (±ACRES)	CANALS (SEC 10-404) (± ACRES)	TIDAL DITCHES (SEC 10/404) (±ACRES)	NON-WETLAND (± ACRES)
3	10.17	109.49	4.10	0.00	2.66	2.52	0.00
4	9.60	5.03	104.37	2.50	2.54	0.00	0.50
5	17.08	127.76	38.54	2.55	4.62	6.86	0.53
6	13.42	37.61	129.97	1.55	4.01	0.00	0.00
TOTAL							
	50.27	279.89	276.98	6.60	13.83	9.38	1.03

O | | | | | O O O O O I

NOTE:
 SG CULVERT = SLUICE GATE CULVERT
 BB CULVERT = BRUCE BROWN CULVERT
 FG = FLAPGATE CULVERT
 O = OPEN CULVERT

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O = AREA OUT OF BANK ACRES (73.48)
 | = AREA IN BANK CREDIT ACRES (564.50)
 = TOTAL (637.98)

QUANTITIES
 ACREAGE TABLE
 LITTLE PRAIRIE RANCH
 VERMILION PARISH, LOUISIANA
 FIGURE 4
 EXISTING

#1 ALL INTERIOR LEVEES IN PC AND NON-WETLAND AREAS WILL BE DEGRADED

MITIGATION BANK BOUNDARY

100' PIPELINE CORRIDOR

TIDAL DITCH

REMOVE PUMP (2)

CANAL

LEVEE AND CANALS CONVERTED TO WETLANDS

HERBACEOUS WETLAND #1

A1

CANAL

PROPOSED 2 3/8" OPEN CULVERTS

TIDAL DITCH



SHEET 2 OF 5

A1
PLAN VIEW
LITTLE PRAIRIE RANCH
 FIGURE 5
 VERMILION PARISH, LOUISIANA
 PROPOSED

— DENOTES LOCATION OF OPEN CULVERT OR GAP WHERE CULVERT EXISTED

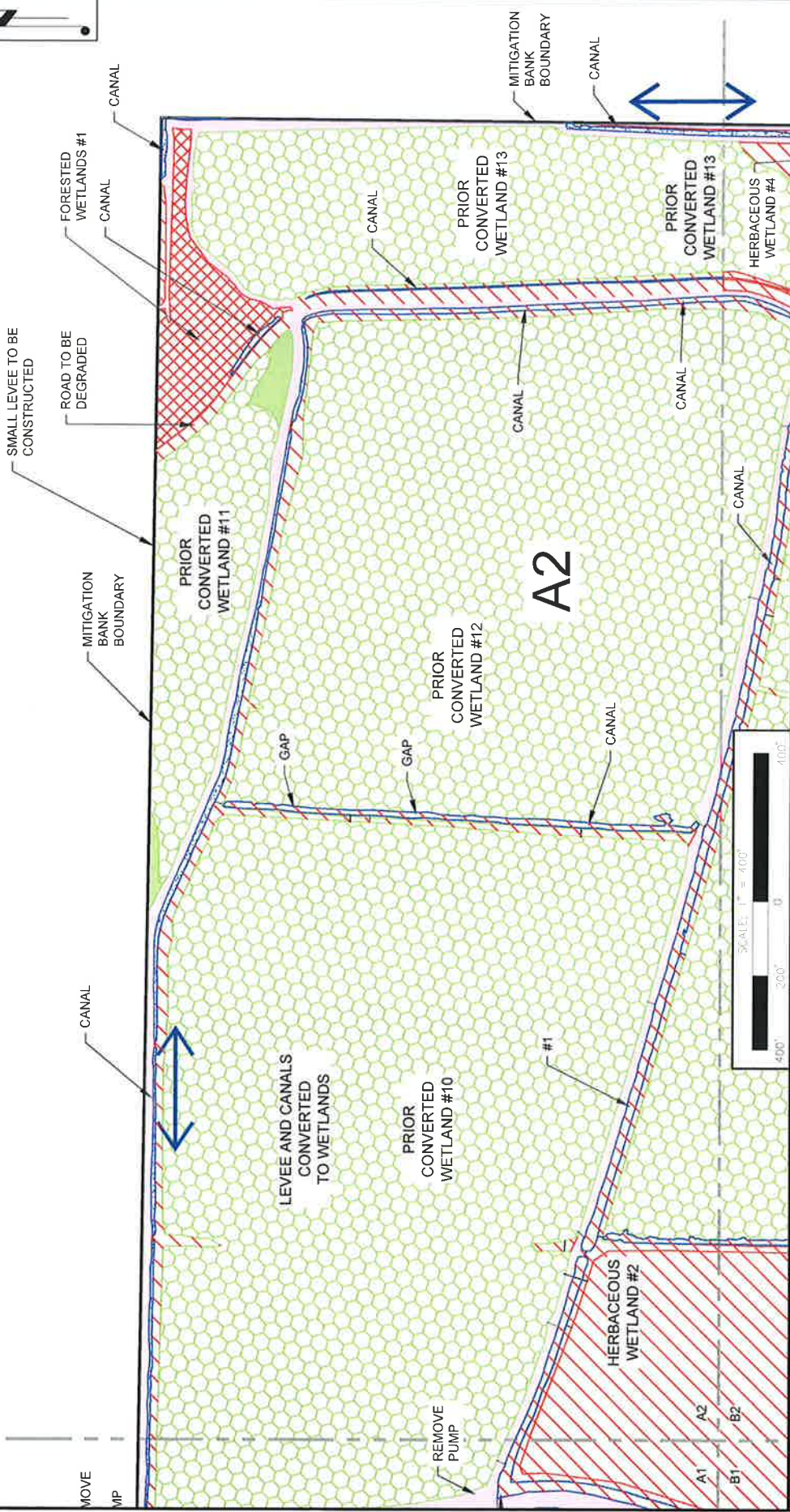
EXISTING SMALL INTERIOR LEVEES

FORESTED WETLANDS (6.60± ACRES)
 IRRIGATION CANALS (SEC 10-404) (3.90± ACRES)
 TIDAL DITCHES (SEC 10-404) (9.38± ACRES)
 NON-WETLANDS (1.03± ACRES)
 WETLAND BOUNDARY (637.98± ACRES)

WETLANDS (311.01± ACRES)
 PRIOR CONVERTED WETLANDS (276.98± ACRES)
 ROADS / LEVEES (29.08± ACRES)
 HARD WOODS TO BE PLANTED (0.00± ACRES)

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#1 ALL INTERIOR LEVEES IN PC AND NON-WETLAND AREAS WILL BE DEGRADED



SHEET 3 OF 5
A2
PLAN VIEW
LITTLE PRAIRIE RANCH
 FIGURE 5
 VERMILION PARISH, LOUISIANA
 PROPOSED

— DENOTES LOCATION OF OPEN CULVERT OR GAP WHERE CULVERT EXISTED

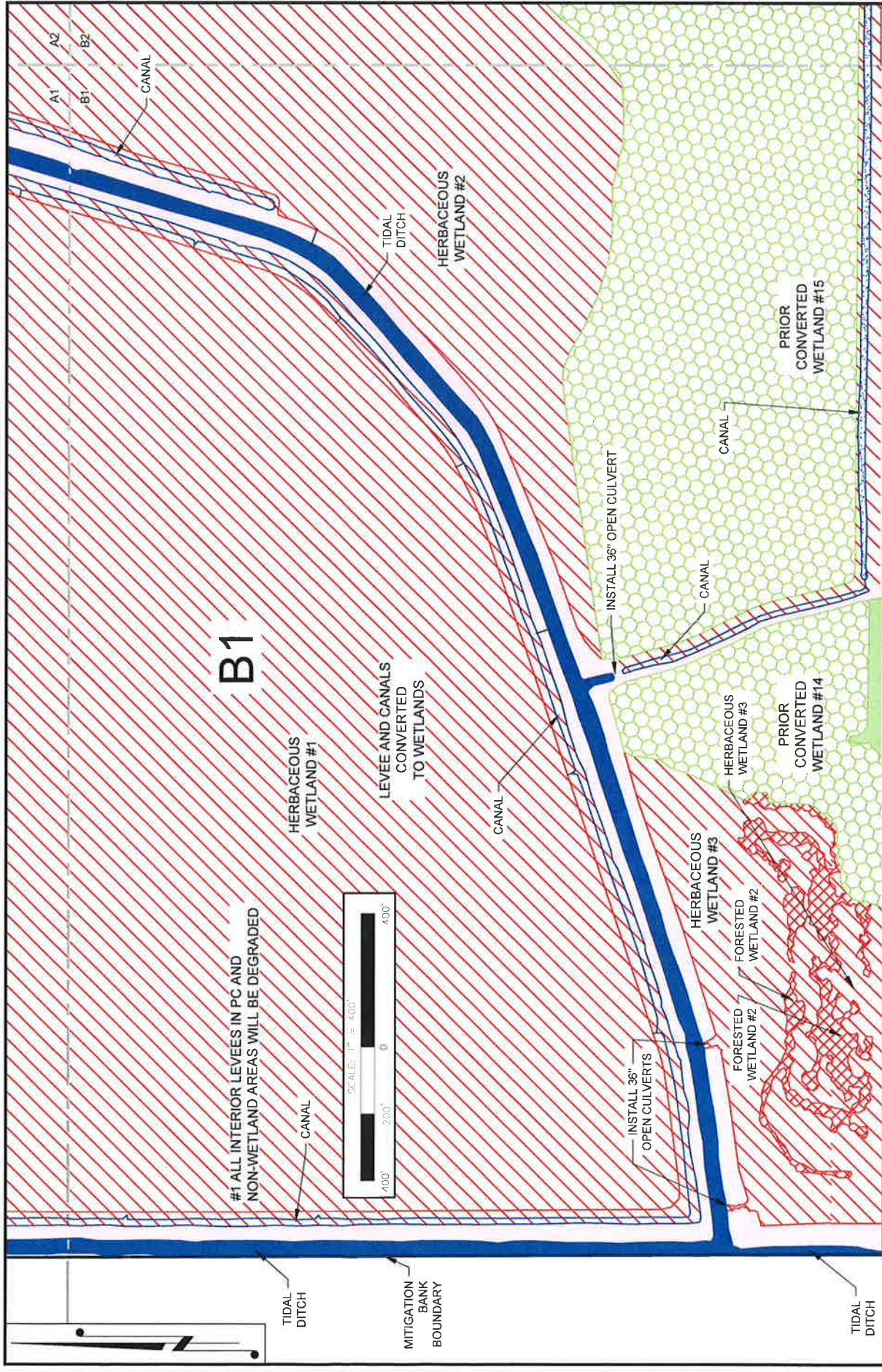
EXISTING SMALL INTERIOR LEVEES

	FORESTED WETLANDS (6.60± ACRES)
	IRRIGATION CANALS (SEC 10-404) (3.90± ACRES)
	TIDAL DITCHES (SEC 10/404) (9.38± ACRES)
	NON-WETLANDS (1.03± ACRES)
	WETLAND BOUNDARY (637.98± ACRES)
	WETLANDS (311.01± ACRES)
	PRIOR CONVERTED WETLANDS (276.98± ACRES)
	ROADS / LEVEES (29.08± ACRES)
	HARD WOODS TO BE PLANTED (0.00± ACRES)

SCALE: 1" = 400'

400' 200' 0' 400'

NOTES: THIS MAP IS NOT TO SCALE AND IS TO BE USED FOR VISUAL AID ONLY. THESE PLATS ARE USED FOR PERMITTING PURPOSES ONLY.

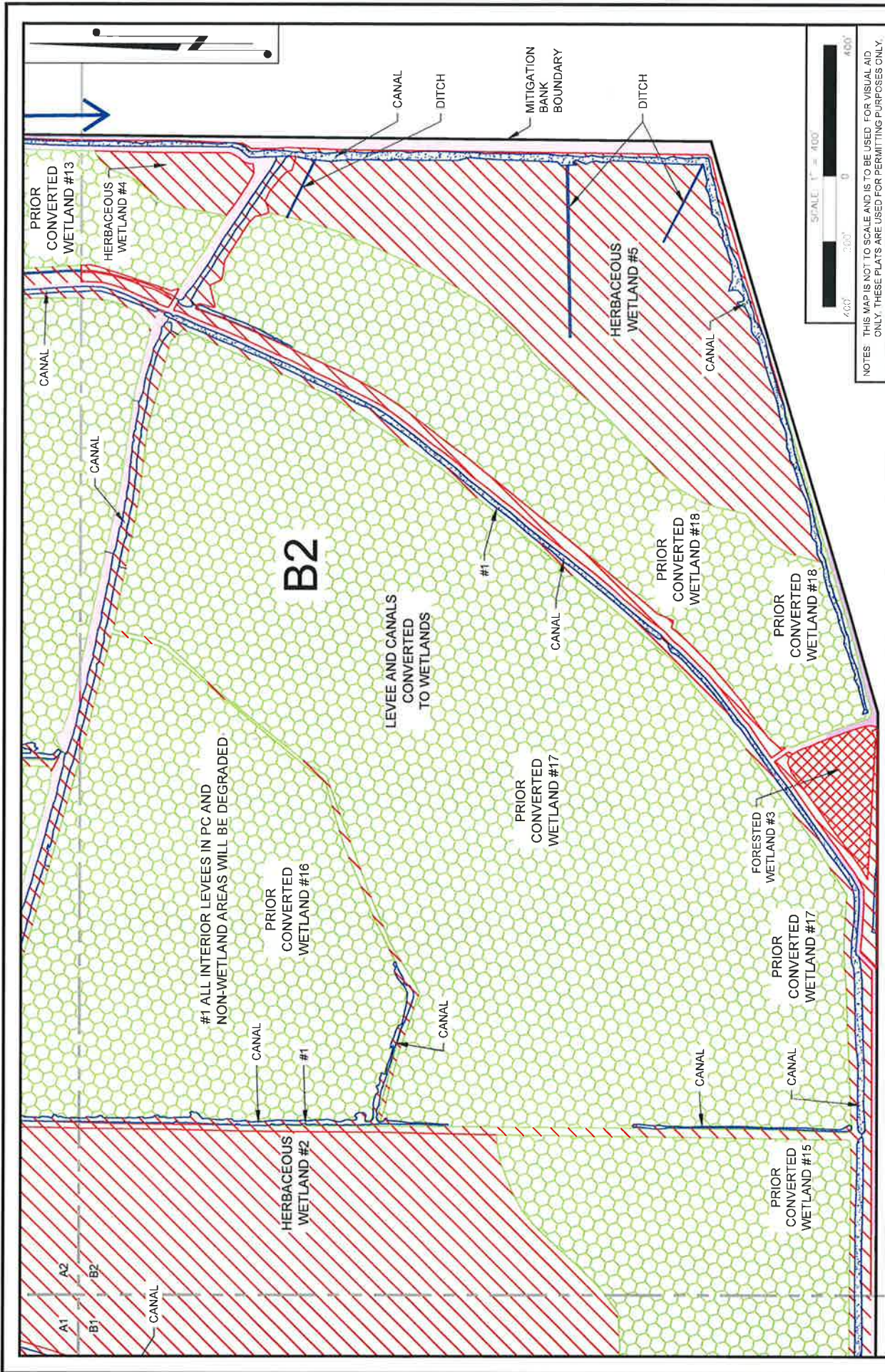


SHEET **4** OF **5**

B1
PLAN VIEW
LITTLE PRAIRIE RANCH
 FIGURE 5
 VERMILION PARISH, LOUISIANA
 PROPOSED

	WETLANDS (311.01± ACRES)		FORESTED WETLANDS (6.60± ACRES)		INSTALL 36" OPEN CULVERT OR GAP WHERE CULVERT EXISTED
	PRIOR CONVERTED WETLANDS (276.98± ACRES)		IRRIGATION CANALS (SEC 10-404) (3.90± ACRES)		EXISTING SMALL INTERIOR LEVEES
	ROADS / LEVEES (29.08± ACRES)		TIDAL DITCHES (SEC 10-404) (9.38± ACRES)		
	HARD WOODS TO BE PLANTED (0.00± ACRES)		NON-WETLANDS (1.03± ACRES)		
			WETLAND BOUNDARY (637.98± ACRES)		

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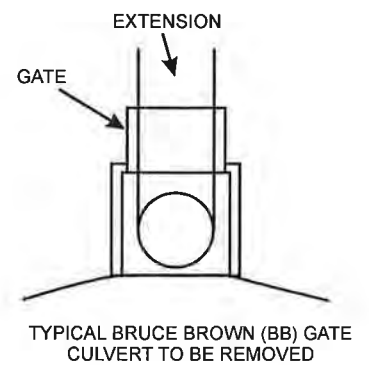
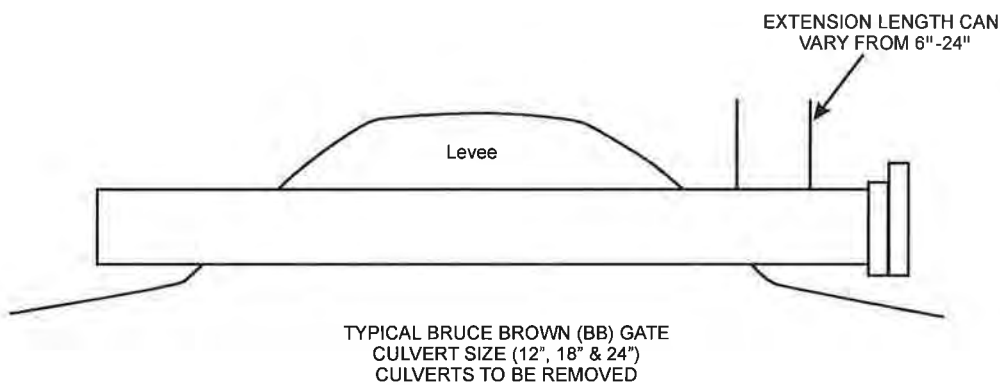
SHEET **5** OF **5**

B2
PLAN VIEW
LITTLE PRAIRIE RANCH
 FIGURE 5
 VERMILION PARISH, LOUISIANA
 PROPOSED


	WETLANDS (311.01± ACRES)		IRRIIGATION CANALS (SEC 10-404) (3.90± ACRES)		EXISTING SMALL INTERIOR LEVEES
	PRIOR CONVERTED WETLANDS (276.98± ACRES)		TIDAL DITCHES (SEC 10/404) (9.38± ACRES)		EXISTING SMALL INTERIOR LEVEES
	ROADS / LEVEES (29.08± ACRES)		NON-WETLANDS (1.03± ACRES)		EXISTING SMALL INTERIOR LEVEES
	HARD WOODS TO BE PLANTED (0.00± ACRES)		WETLAND BOUNDARY (637.98± ACRES)		EXISTING SMALL INTERIOR LEVEES
	WETLANDS (6.60± ACRES)		FORESTED WETLANDS (6.60± ACRES)		EXISTING SMALL INTERIOR LEVEES
	PRIOR CONVERTED WETLANDS (276.98± ACRES)		IRRIGATION CANALS (SEC 10-404) (3.90± ACRES)		EXISTING SMALL INTERIOR LEVEES
	ROADS / LEVEES (29.08± ACRES)		TIDAL DITCHES (SEC 10/404) (9.38± ACRES)		EXISTING SMALL INTERIOR LEVEES
	HARD WOODS TO BE PLANTED (0.00± ACRES)		NON-WETLANDS (1.03± ACRES)		EXISTING SMALL INTERIOR LEVEES
	WETLAND BOUNDARY (637.98± ACRES)		FORESTED WETLANDS (6.60± ACRES)		EXISTING SMALL INTERIOR LEVEES

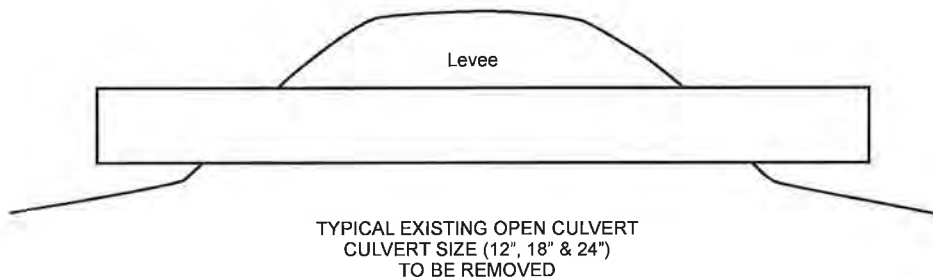
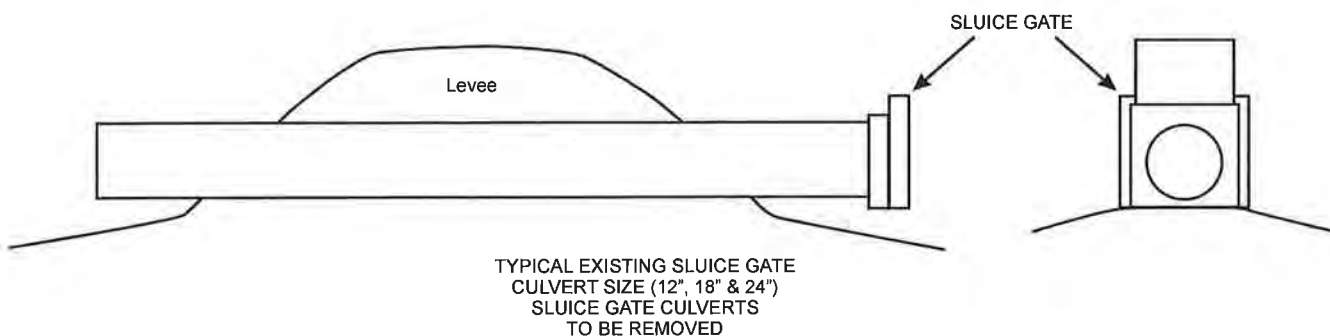
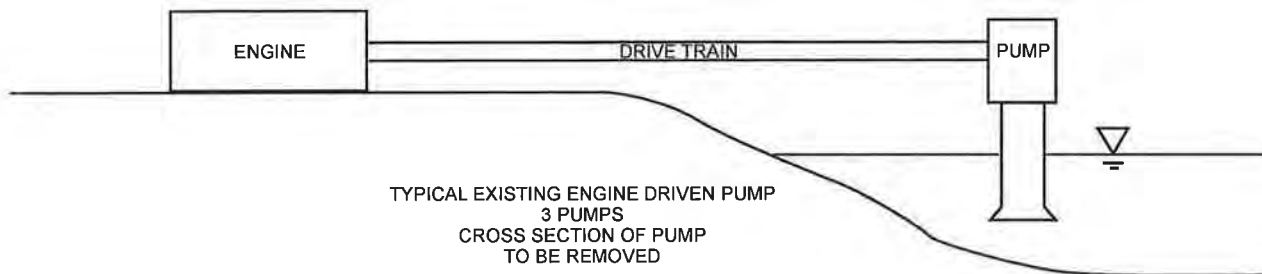
NOTES: THIS MAP IS NOT TO SCALE AND IS TO BE USED FOR VISUAL AID ONLY. THESE PLATS ARE USED FOR PERMITTING PURPOSES ONLY.

ATTACHMENT F




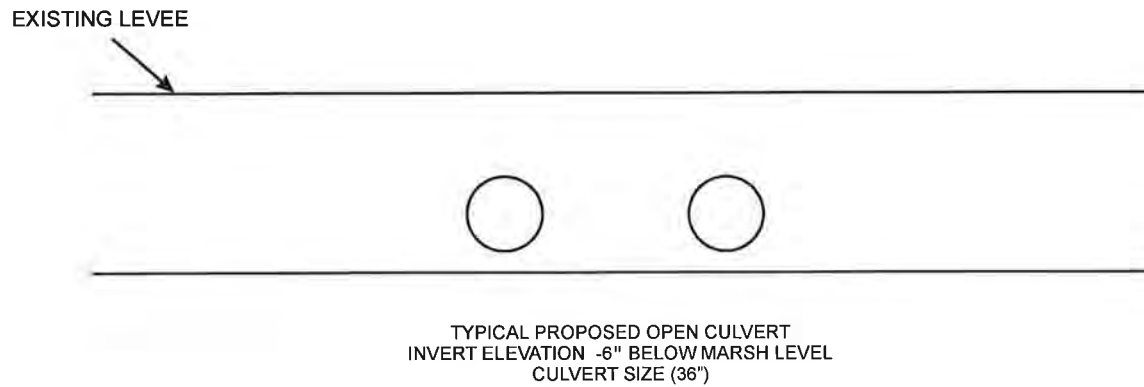
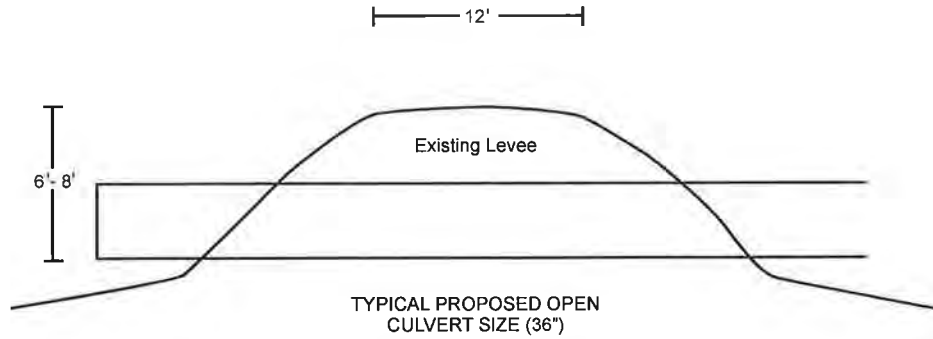
THESE PLATS ARE TO BE USED EXCLUSIVELY FOR THE ACQUISITION OF REGULATORY PERMITS. THESE PLATS ARE USED FOR PERMITTING PURPOSES ONLY.

	Project: Little Prairie Ranch Vermilion Parish	
	FIGURE: 6	
	Date: 03/16/2016	Project No.: 12848-01
	Drawn By: MKM	NOT TO SCALE
Figure Title: CROSS SECTION OF EXISTING PUMP AND BRUCE BROWN GATE		Sheet No.: 1 of 4



THESE PLATS ARE TO BE USED EXCLUSIVELY FOR THE ACQUISITION OF REGULATORY PERMITS. THESE PLATS ARE USED FOR PERMITTING PURPOSES ONLY.

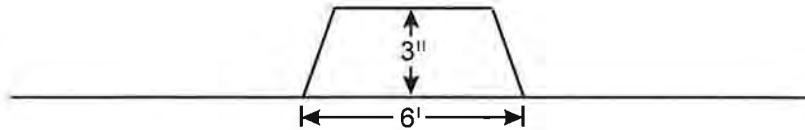
	Project: Little Prairie Ranch Vermilion Parish	
	FIGURE: 6	
	Date: 03/16/2016	Project No.: 12848-01
	Drawn By: MKM	NOT TO SCALE
	Figure Title: CROSS SECTION OF EXISTING PUMP AND SLUICE GATE	Sheet No.: 2 of 4



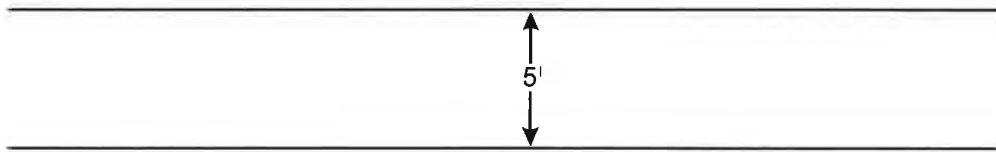
THESE PLATS ARE TO BE USED EXCLUSIVELY FOR THE ACQUISITION OF REGULATORY PERMITS. THESE PLATS ARE USED FOR PERMITTING PURPOSES ONLY.



Project: Little Prairie Ranch Vermilion Parish		
FIGURE: 6		
Date: 03/16/2016	Project No.: 12848-01	
Drawn By: MKM	NOT TO SCALE	
Figure Title: CROSS SECTION OF PROPOSED CULVERT AND FLAP GATE		Sheet No.: 3 of 4



CROSS SECTION OF PROPOSED LEVEE
NOT TO SCALE



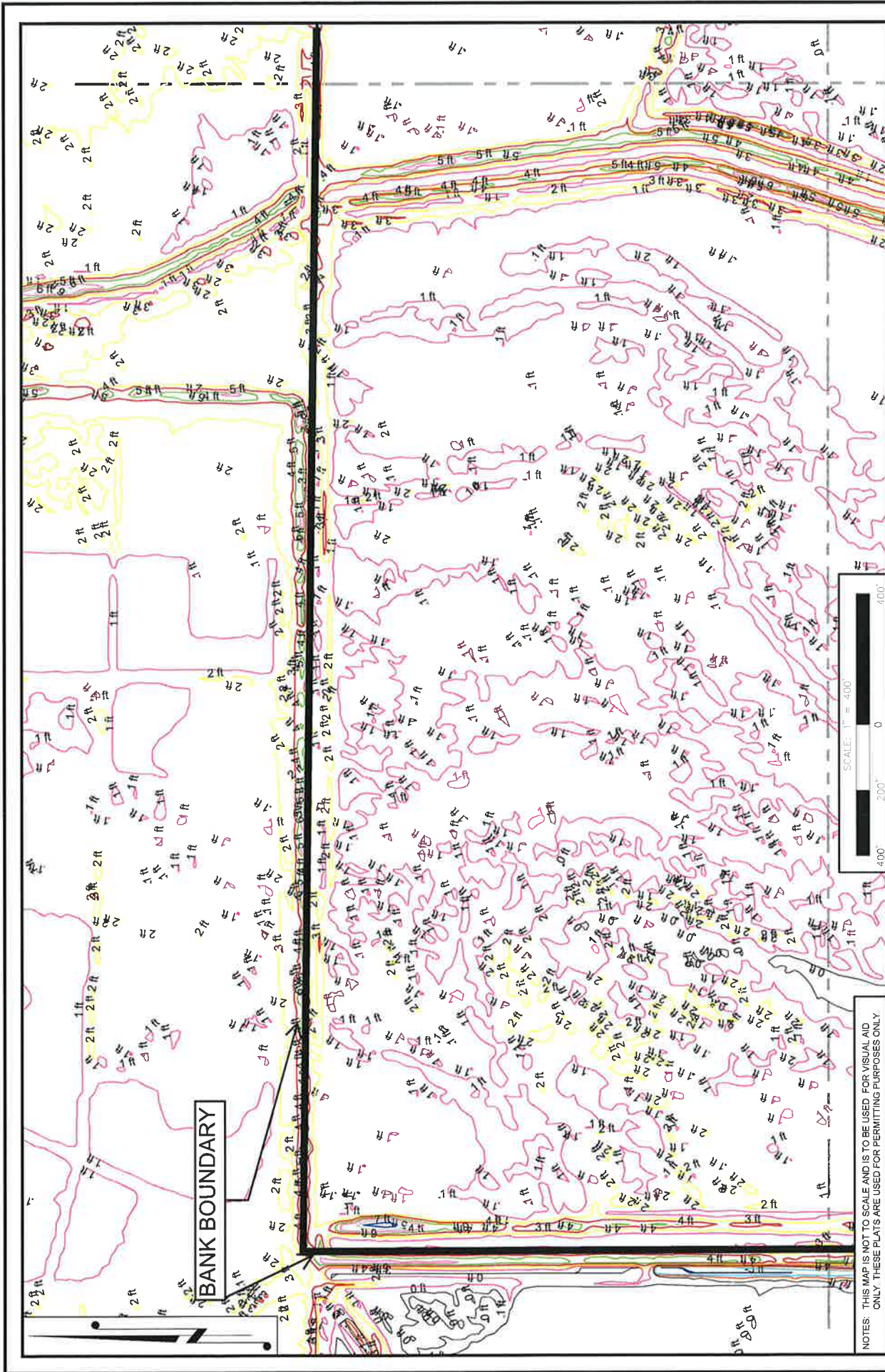
PROFILE OF PROPOSED LEVEE ON NORTH BOUNDARY OF PC#11
NOT TO SCALE

THESE PLATS ARE TO BE USED EXCLUSIVELY FOR THE ACQUISITION OF REGULATORY PERMITS. THESE PLATS ARE USED FOR PERMITTING PURPOSES ONLY.

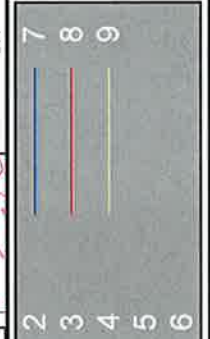


Project: Little Prairie Ranch Vermilion Parish		
FIGURE: 6		
Date: 03/16/2016	Project No.: 12848-01	
Drawn By: MKM	NOT TO SCALE	
Figure Title: CROSS SECTION AND PROFILE VIEW OF PROPOSED LEVEE ON NORTH BOUNDARY OF PC #11		Sheet No.: 4 of 4

ATTACHMENT G



NOTES: THIS MAP IS NOT TO SCALE AND IS TO BE USED FOR VISUAL AID ONLY. THESE PLATS ARE USED FOR PERMITTING PURPOSES ONLY.

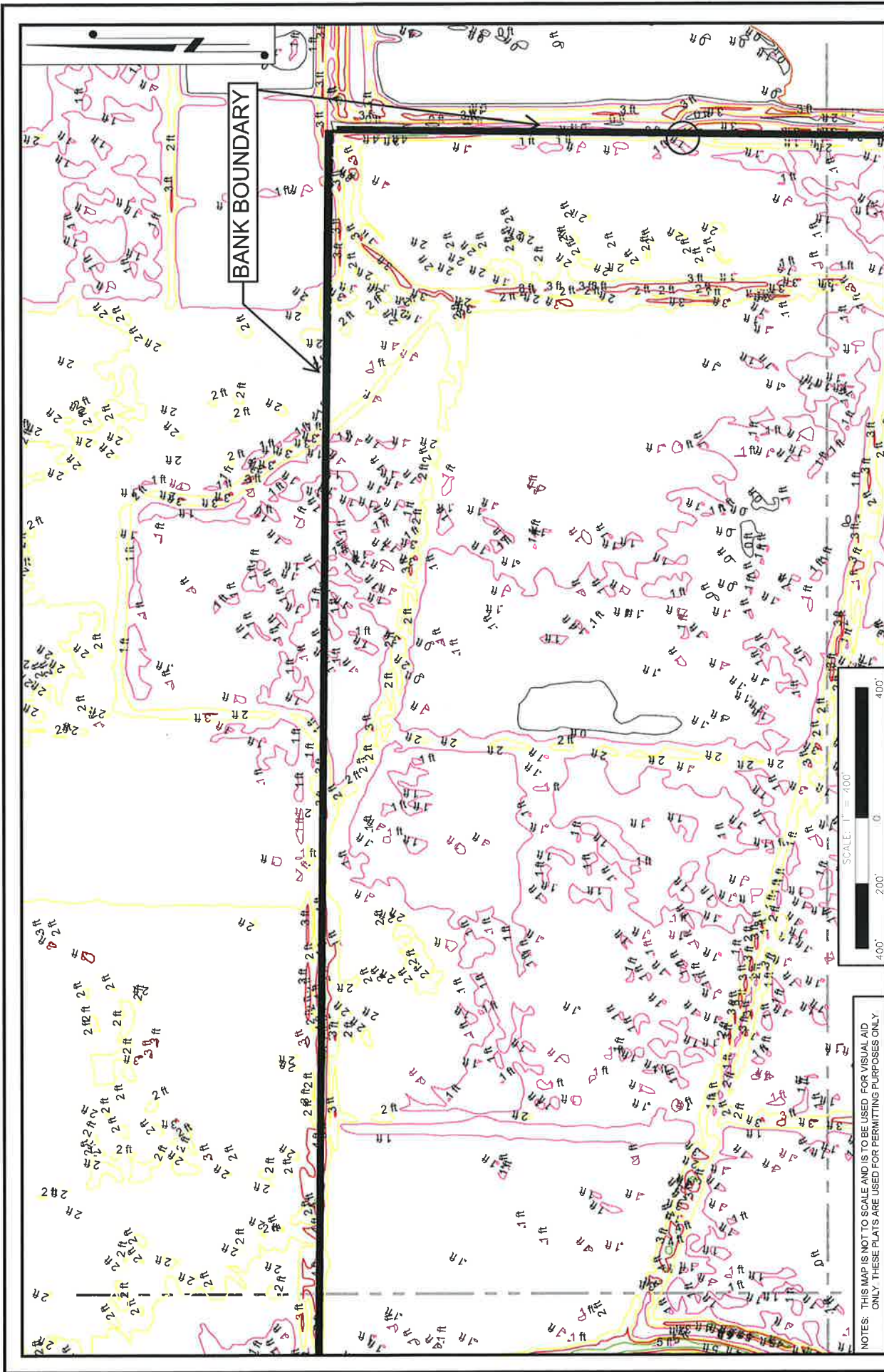


NAD83 - HORIZONTAL
 NAVD88 - VERTICAL

WETLAND BOUNDARY (2,114.58± ACRES)

A1
 LIDAR
 LITTLE PRAIRIE RANCH
 VERMILION PARISH, LOUISIANA

SHEET 1 OF 6



BANK BOUNDARY

SHEET **2** OF **6**

A2

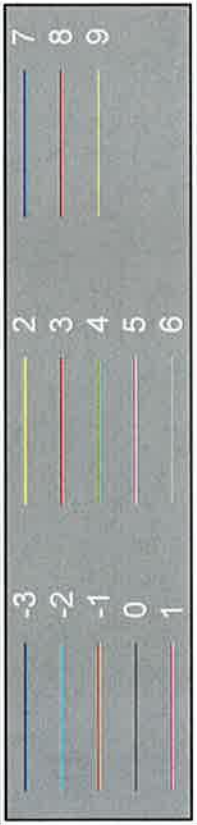
LIDAR
LITTLE PRAIRIE RANCH
VERMILION PARISH, LOUISIANA

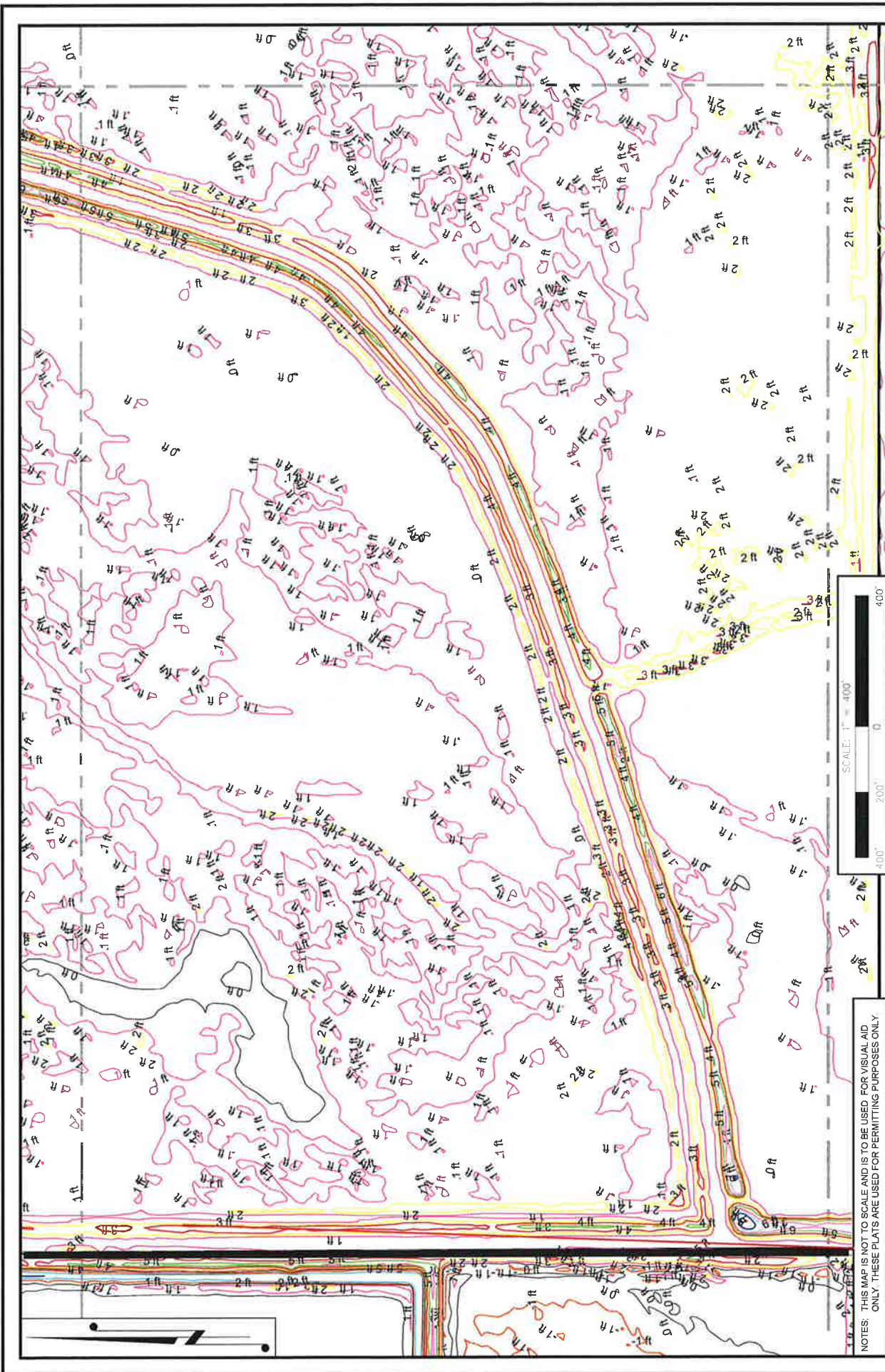
NAD83 - HORIZONTAL
NAVDS83 - VERTICAL

WETLAND BOUNDARY (2,114.59± ACRES)

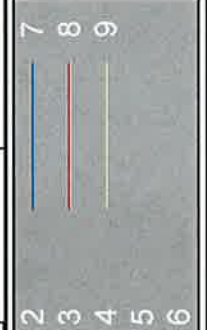


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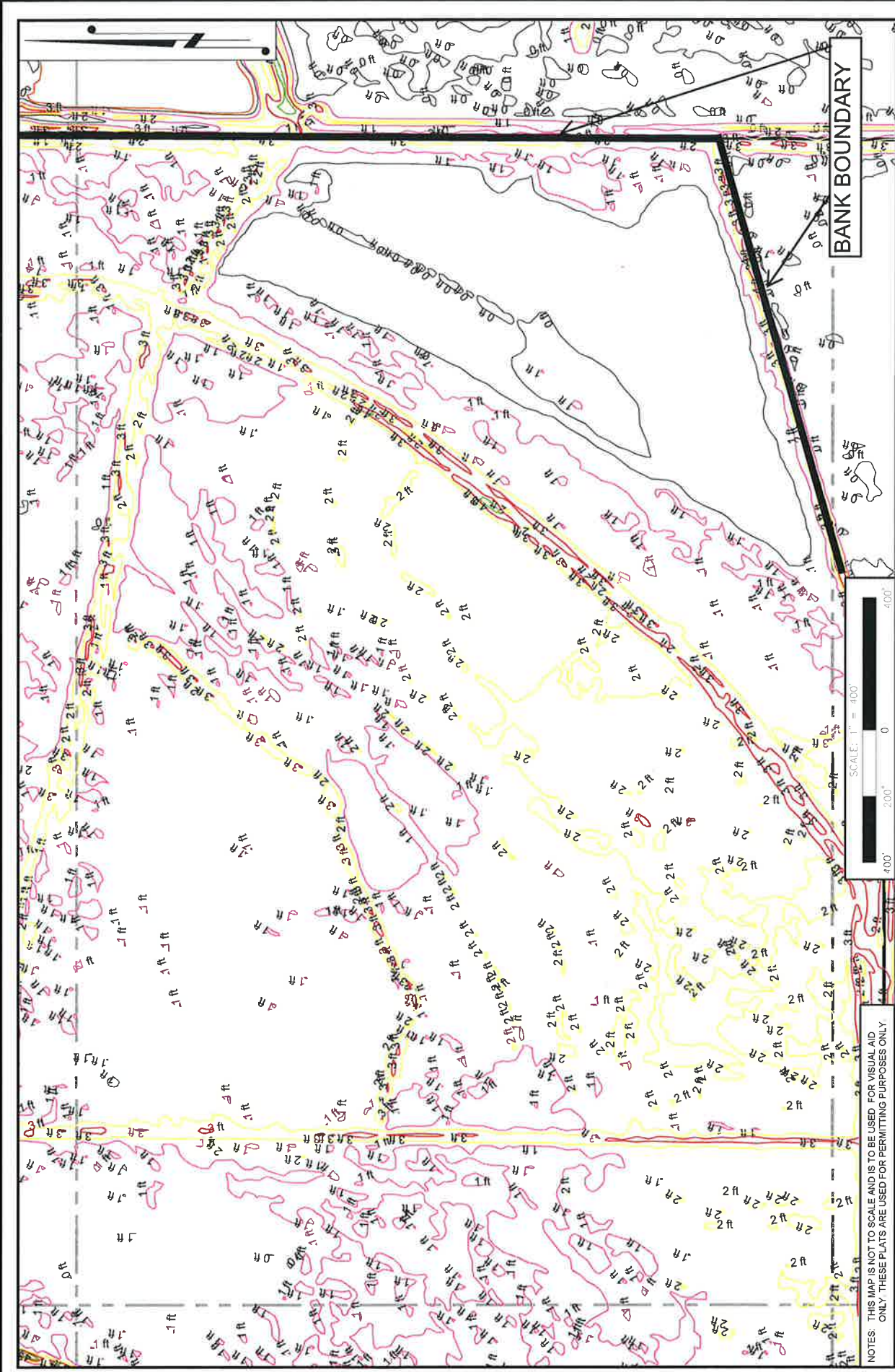


NAD83 - HORIZONTAL
 NAVD83 - VERTICAL

B1
LIDAR
LITTLE PRAIRIE RANCH
 VERMILION PARISH, LOUISIANA

SHEET **3** OF **6**

WETLAND BOUNDARY (2,114.59± ACRES)



BANK BOUNDARY

SHEET **4** OF **6**

B2
LIDAR
LITTLE PRAIRIE RANCH
 VERMILION PARISH, LOUISIANA

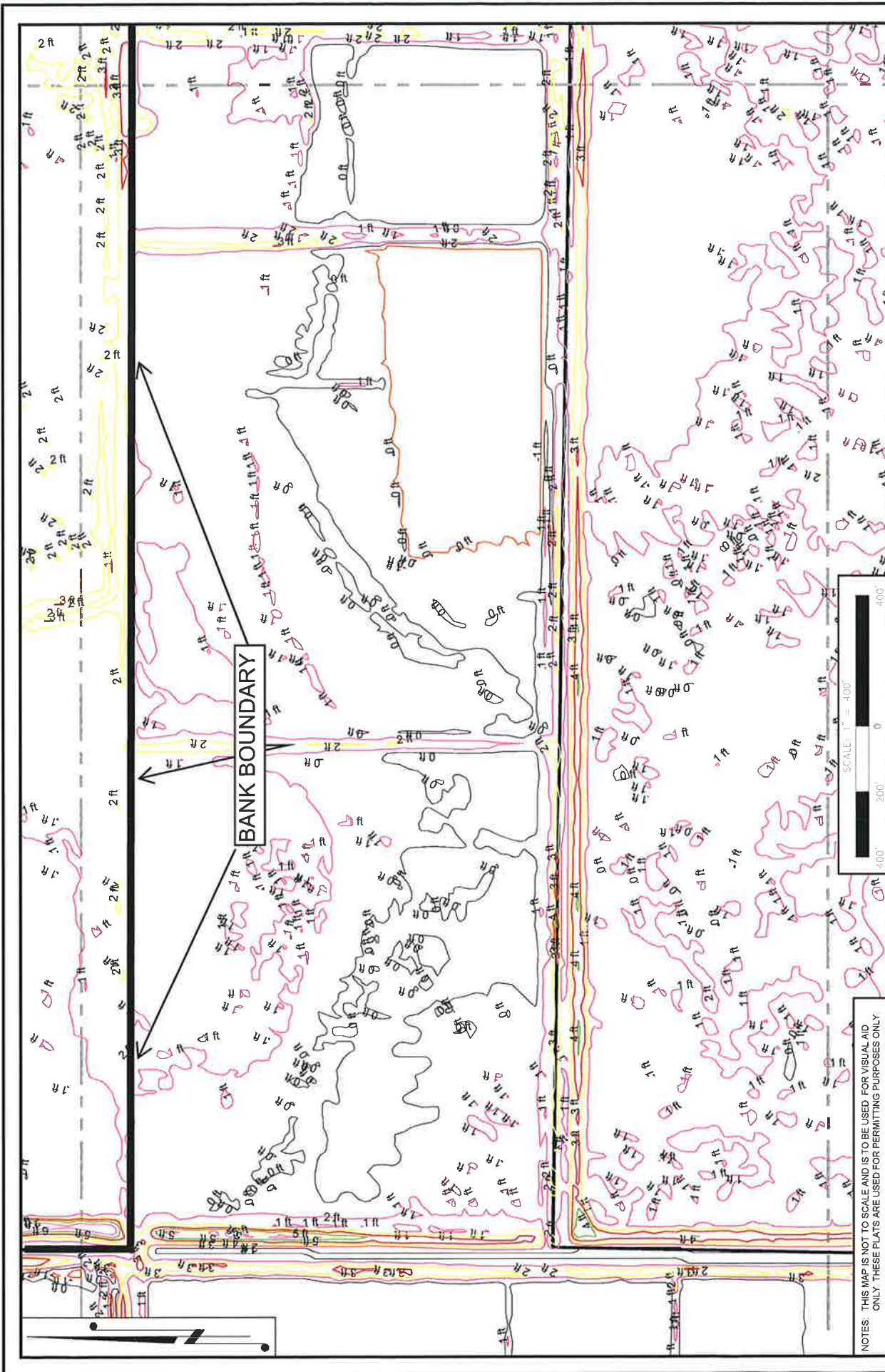
NAD83 - HORIZONTAL
 NAVD88 - VERTICAL

SCALE: 1" = 400'
 0 200' 400'

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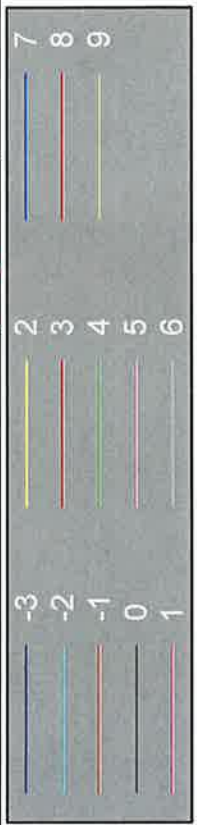
7	2
8	3
9	4
	5
	6
3	
2	
1	
0	
1	

WETLAND BOUNDARY (2,114.59± ACRES)



BANK BOUNDARY

NOTES: THIS MAP IS NOT TO SCALE AND IS TO BE USED FOR VISUAL AID ONLY. THESE PLAYS ARE USED FOR PERMITTING PURPOSES ONLY.



NAD83 - HORIZONTAL
NAVD88 - VERTICAL

WETLAND BOUNDARY (2,114.59± ACRES)

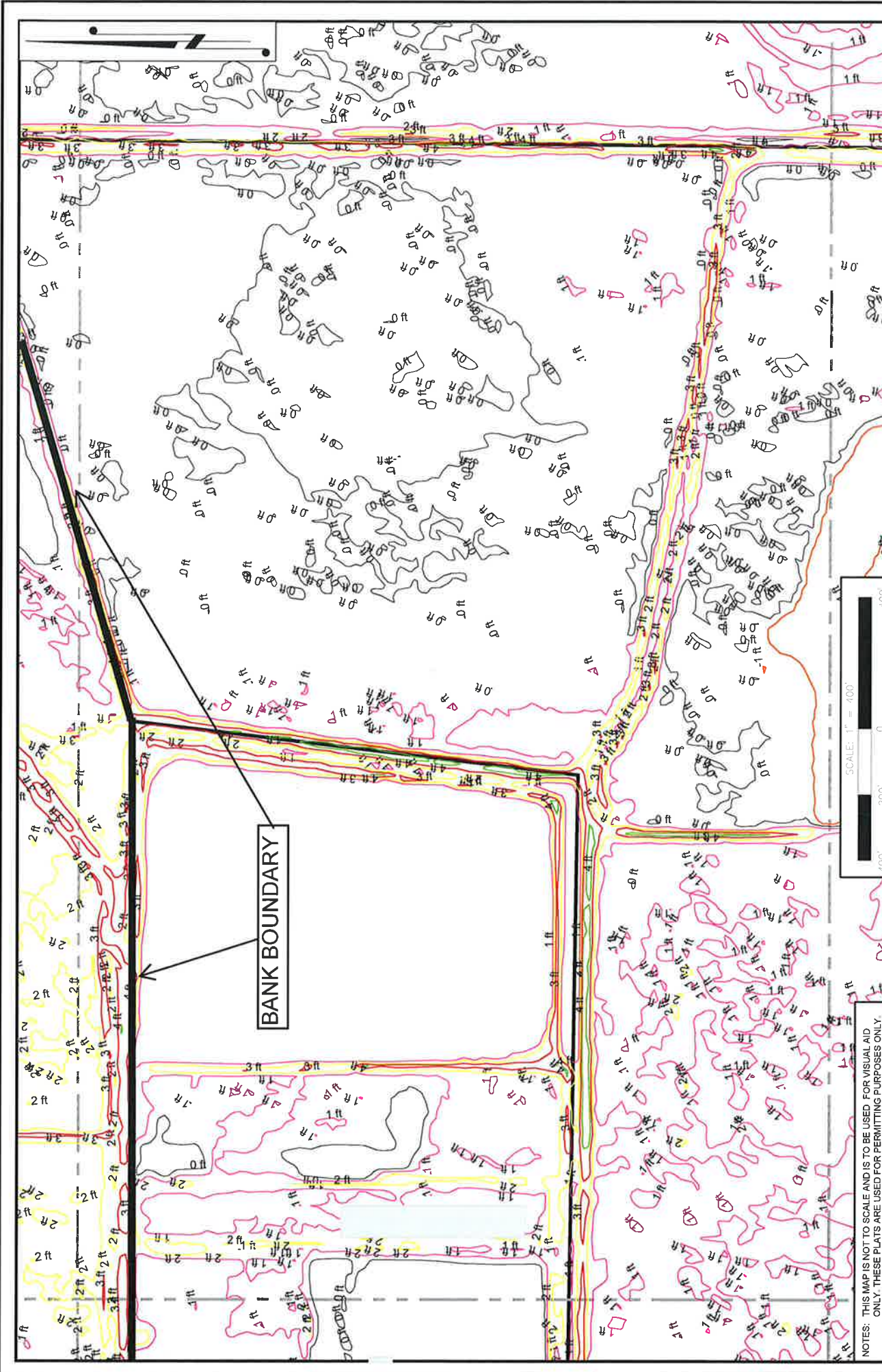
C1

LIDAR

LITTLE PRAIRIE RANCH

VERMILION PARISH, LOUISIANA

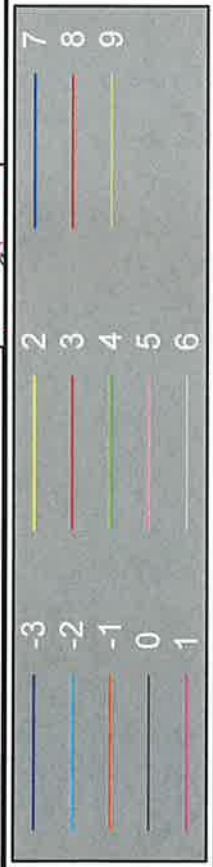
SHEET **5** OF **6**



BANK BOUNDARY



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NAD83 - HORIZONTAL
NAVD88 - VERTICAL

C2

LIDAR
LITTLE PRAIRIE RANCH
VERMILION PARISH, LOUISIANA

SHEET **6** OF **6**