

JOINT PUBLIC NOTICE

April 28, 2015

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

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Project Manager
Jacqueline Farabee
Permit Application Number
MVN-2015-00847-MR

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

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Project Manager
Karen Latuso
WQC Application Number
WQC # 150444-01

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).

ALLIGATOR BAYOU MITIGATION BANK IN AVOYELLES PARISH

NAME OF APPLICANT: Alligator Bayou Properties, LLC c/o Royal Engineers and Consultants, LLC, Attn: April Dykes, 214 Third St. Suite 2C, Baton Rouge, LA 70801.

LOCATION OF WORK: The 333.2 acre site is located Hamburg, Louisiana, in Avoyelles Parish, on Pete Laborde Highway, as shown on enclosed drawings (Latitude: 31.074301 N, Longitude: -91.883108 W). The Project is located within the Atchafalaya River Hydrologic Unit 08080101.

CHARACTER OF WORK: Degrade roads and redistribute material 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 274.7 acres of bottomland hardwoods (BLH) and rehabilitate 30.6 acres of Cypress -Tupelo Swamp. In addition to the restoration acreage 21.2 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



DRAFT PROSPECTUS

**ALLIGATOR BAYOU MITIGATION BANK
AVOUELLES PARISH, LOUISIANA**

PREPARED FOR

U.S. Army Corps of Engineers
New Orleans District
New Orleans, Louisiana

PREPARED AND SUBMITTED BY

Royal Engineers & Consultants, LLC
214 Third Street
Suite 2C
Baton Rouge, LA 70801
www.royalengineering.net

ALLIGATOR BAYOU MITIGATION BANK
AVOUELLES PARISH, LOUISIANA
FEBRUARY 9, 2015

TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
1.1	Bank Sponsor and Owner.....	1
1.2	Site Location	1
1.3	Driving Directions.....	2
2.0	PROJECT GOALS AND OBJECTIVES.....	2
3.0	ECOLOGICAL SUITABILITY OF THE SITE.....	3
3.1	Historical Site Conditions	3
3.2	Current Site Conditions and Characteristics	3
3.3	Congruence with Local Action Plans.....	4
3.4	General Bank Need	4
3.5	Technical Feasibility	4
4.0	BANK ESTABLISHMENT	5
4.1	Management Summary	5
4.2	Proposed Service Area	7
5.0	OPERATIONS	8
5.1	Future Ownership and Long-Term Management.....	8
5.2	Site Protection Mechanism.....	8
5.3	Long Term Management Strategy.....	8
5.4	Sponsor Qualifications	8
6.0	CONCLUSION	9
7.0	REFERENCES.....	9

FIGURES

Figure 1	Vicinity
Figure 2	Service Area
Figure 3	Current Conditions
Figure 4	Surrounding Land Use
Figure 5	Restoration Plan
Figure 6	Proposed Restoration Types
Figure 7	Soils
Figure 8	Drainage Area
Figure 9	Current Hydrology
Figure 10	Proposed Hydrology
Figure 11	Typical Cross Sections
Figure 12	Project Boundary
Figure 13	2013 Historical Aerial
Figure 14	2005 Historical Aerial

APPENDIX

- Appendix A USDA Soil Conservation Service Highly Erodible Land and Wetland Conservation Determination for Area of Interest
- Appendix B Photographic Record

DRAFT PROSPECTUS
Royal Engineers & Consultants, LLC
Alligator Bayou Mitigation Bank
Avoyelles Parish, Louisiana

1.0 INTRODUCTION

Royal Engineers & Consultants, LLC (ROYAL) submits this Draft Prospectus on behalf of Alligator Bayou Properties, LLC to the U.S. Army Corps of Engineers New Orleans District (CEMVN) and the Interagency Review Team (IRT) to initiate evaluation of the proposed Alligator Bayou Mitigation Bank (ABMB) in accordance with 33 CFR 332.8(d)(2). The details pertaining to the use of the site as a mitigation bank will be specified within the subsequent Mitigation Banking Instrument (MBI).

1.1 Bank Sponsor and Owner

Alligator Bayou Properties, LLC, is the Sponsor of the ABMB. The land is owned in fee title by Alligator Bayou Properties, LLC, who will assume long term ownership and management of the ABMB.

1.2 Site Location

The ABMB is approximately 333.2 acres and will provide approximately 274.7 acres of re-established bottomland hardwood habitat and approximately 30.6 acres of rehabilitated Cypress/Tupelo Swamp. The ABMB is located at latitude 31.074301N and longitude 91.883108 W within Section 8 T1N R6E in Hamburg, Avoyelles Parish, Louisiana (Figure 1). This site also lies within the 38,865 square miles Mississippi Delta Cotton and Feed Grains Region Land Resource Region (LRR O) and within the 2,410 square miles of the Red River Alluvium Major Land Resource Area (MLRA 131C). The ABMB is located south of Lac á Guillaume, west of Horseshoe Lake, and north of Lac aux Roseaux. It is bordered on the north and west by Pete Laborde Road. To the east and for a portion of the southern boundary, the ABMB is bordered by privately owned lands currently enrolled in the USDA Natural Resources Conservation Service (NRCS) Wetlands Reserve Program (WRP). The remaining portion of the southern boundary is

bordered by privately owned lands. ABMB is located within the Atchafalaya Watershed, HUC 08080101 (Figure 2).

1.3 Driving Directions

- Take I-10 West from Baton Rouge.
- Merge onto LA-1 N via Exit 153 toward Port Allen.
- Travel approximately 4.5 miles and merge onto US-190 W/LA-1.
- Travel approximately 15 miles and then turn right onto LA-1.
- Travel approximately 12.5 miles and turn left on Hospital Road/LA-1.
- Travel approximately 2 miles and then turn left onto Morganza Highway/LA-1/LA-10.
- Travel approximately 38 miles and turn right on Dubroc Xing.
- Turn left on Old Highway 1 and travel approximately 0.5 miles.
- Keep right at the fork in the road and continue on Old Highway 1. Old Highway 1 becomes Highway 451/LA-451.
- Travel approximately 2.7 miles and then turn left onto Pete Laborde Highway.
- Travel approximately 2.5 miles and arrive at 31° 4' 27.4853" N and 91° 52' 59.1878" W

2.0 PROJECT GOALS AND OBJECTIVES

The goal of the ABMB is the re-establishment of approximately 274.7 acres of bottomland hardwood habitat and rehabilitation of approximately 30.6 acres of bald cypress-tupelo swamp (Figures 3-6). This land is located within the Atchafalaya Watershed, HUC 08080101. Table 1, located below, shows current and proposed habitat types and acreages.

The Sponsor proposes to restore the hydrology of the site by degrading elevated roadways located within agricultural areas that impede the natural movement of water across the site (Figure 5). The project site will be removed from agricultural use and reforested with an assemblage of species indicative of wetland forests within the surrounding areas.

Table 1: Current Habitat Types, Proposed Habitat Type, Land Use, and Proposed Mitigation Type

Present Habitat Type	Proposed Habitat Type	Current Land Use	Mitigation Type	Acreage
Agricultural Prior Converted Wetlands	Bottomland Hardwood	Agricultural	Re-establishment	185.9
Agricultural Farmed Wetlands	Bottomland Hardwood	Agricultural	Re-establishment	88.8
Freshwater Emergent Wetlands	Cypress/Tupelo Swamp	None	Rehabilitation	3.0
Freshwater Forested/Shrub Wetland	Cypress/Tupelo Swamp	None	Rehabilitation	27.6

3.0 ECOLOGICAL SUITABILITY OF THE SITE

3.1 Historical Site Conditions

ABMB lands are located in Hamburg, Avoyelles Parish, Louisiana. Historically, bottomland hardwood forests existed throughout the Parish, but large portions of the land were cleared for silviculture, livestock grazing, and agricultural use. The ABMB lands are currently, and have been historically, used for agricultural activities. Alligator Bayou Properties, LLC acquired the land in August 2014 and continues to lease the land for agricultural activities.

3.2 Current Site Conditions and Characteristics

The majority of the project site, approximately 302.6 acres, is currently utilized for agricultural purposes and changes have been made to the landscape, such as grading and construction of elevated roadways, throughout the history of the project site to support such agricultural activities. According to the USDA Soil Conservation Service, as detailed within the USDA Soil Conservation Service Highly Erodible Land and Wetland Conservation Determinations located within Appendix A, the approximately 302.6 acres of the project site utilized for agricultural purposes are considered Prior Converted Wetlands or Farmed Wetlands. The remaining approximately 30.6 acres of the project site, which are not used for agricultural purposes, still exist in a relatively natural state and appear, for the most part, undisturbed by agricultural activities.

3.2.1 Current Vegetation

Vegetation present throughout the majority of the project site, the approximately 302.6 acres utilized for agricultural purposes, consists almost entirely of soybean (*Glycine max*). Vegetation present within the 30.6 acres of mapped wetlands consisted of cocklebur (*Xanthium strumarium*: FAC), shortbristle horned beaksedge (*Rhynchospora corniculata*: OBL), honey locust (*Gleditsia triacanthos*: FAC), Chinese Tallow (*Triadica sebifera*: FAC), passion vine (*Passiflora incarnate*: NI), common ragweed (*Ambrosia artemisiifolia* L.: FACU), and cutleaf coneflower (*Rudbeckia laciniata*: FACW).

3.2.2 Current Soils

The project site is mapped as Sharkey clay, zero (0) to one (1) percent slopes, rarely flooded, south and Tensas silty clay according to the USDA NRCS *Custom Soil Resources Report for Avoyelles Parish, Louisiana* (Figure 7). Sharkey clay, zero (0) to one (1) percent slopes, rarely flooded, south, typical of Avoyelles Parish, Louisiana, consists of poorly drained, very slowly permeable, nonsaline, clayey alluvium located within backswamps, depressional areas, and within low areas along natural levees within the Mississippi alluvial plain. The water table exists zero (0) inches below the soil surface. These soils are rarely flooded and have little likelihood of ponding. Tensas silty clay, typical of Avoyelles Parish, is located along natural levees of the Mississippi River and its tributaries and consists of somewhat poorly drained, very slowly permeable soils with a slope of zero (0) to five (5) percent. These soils are rarely flooded and found to have little likelihood of flooding. The water table exists 12 to 36 inches below soil surface. Both Tensas silty clay and Sharkey clay, zero (0) to one (1) percent slopes, rarely flooded, south, are listed as hydric soils of Avoyelles Parish on the USDA NRCS *National List of Hydric Soils; All States* (2014).

3.2.3 Hydrology

The current project hydrology is influenced by rainfall, runoff from adjacent properties to the east of the site (Figure 8), and high water tables. Average annual precipitation within the vicinity of the project area is 48.98 inches per year. July was the wettest month of 2014 with total precipitation of 5.15 inches, while September was the driest month of 2014 with total precipitation of 0.87 inches. Water tables within the project area lie between 0 and 12 inches below ground surface.

Due to alterations/agricultural modifications to the project site (i.e. farm roads and grading), surface hydrology has been altered such that constructed features impede the natural drainage of the site, moving the majority of the water east and west instead of the natural north to south. In addition, altered surface hydrology has resulted in ephemeral ponding and/or saturation sporadically located along the project site boundary, as well as alongside farm roads, within the portions of the project site currently utilized for agricultural purposes. Current hydrology is depicted within Figure 9.

3.2.4 Property Constraints

The project site and adjacent property are located within unincorporated land, absent of zoning regulations.

3.2.5 Jurisdictional Determination

A Jurisdictional Determination request was sent to CEMVN on December 8, 2014. A copy of the Jurisdictional Determination, once received, will be included as an appendix within the Final Prospectus.

3.3 Congruence with Local Action Plans

There are currently no state, federal, or local action plans within the vicinity of the project site.

3.4 General Bank Need

There are currently two (2) mitigation banks located within the proposed primary service area of the ABMB; the Atchafalaya Watershed HUC 08080101. However, only one (1) of those banks has credits available for purchase at this time.

The ABMB will provide compensatory mitigation for CEMVN approved projects within the Atchafalaya watershed including, but not limited to, oil and gas exploration and production, residential development, commercial development, infrastructure development, and industrial development.

In addition to providing compensatory mitigation, the ABMB, once established, will re-establish a forested corridor while also providing additional suitable habitat, thereby providing benefit to various species of wildlife, both native and migratory, including migratory birds. Approximately 23 species of Birds of Conservation Concern are found within areas surrounding the project site throughout the year.

3.5 Technical Feasibility

The ABMB has the potential to re-establish approximately 274.7 acres and to rehabilitate approximately 30.6 acres of forested wetlands. The project site is underlain by hydric soils, which despite hydrologic modification, have retained hydric soil indicators. Wetland hydrology,

while impaired, could be restored to a more natural regime through the removal of elevated roads.

The site directly abuts forested areas which have remained relatively undisturbed. These undisturbed areas consist of bottomland hardwoods and cypress swamp. The Sponsor has a high degree of confidence that with the proposed restoration implemented, that ABMB will blend seamlessly into the surrounding landscape.

4.0 BANK ESTABLISHMENT

4.1 Management Summary

4.1.1 Hydrologic Restoration

The primary sources of hydrology of the proposed ABMB include rainfall, runoff from adjacent lands to the east, and groundwater. Rainfall is estimated to be approximately 48.98 inches per year according to National Oceanic and Atmospheric Administration National Weather Service Weather Forecast Office.

Farm roads currently located within the project site impede the natural drainage of the site. Degrading of these roads will assist in restoring the natural drainage pattern such that water on site will drain north to south, as depicted within Figure 10. Figure 11 presents typical cross-sections for hydrologic restoration activities.

4.1.2 Drainage Area

Once the ABMB project is completed, water will enter the project area via rain water accumulation and runoff from adjacent lands to the east of the site. The water will then flow south into unnamed creeks and bayous, as well as Pomme de Terre Swamp. From these unnamed creeks and bayous and Pomme de Terre Swamp, water will flow into Bayou de Glaises and then into the Atchafalaya River.

4.1.3 Vegetative Restoration

For areas of the ABMB designated for re-establishment of bottomland hardwoods, approximately 274.7 acres, a combination of hard and soft mast producing species will be planted. Bare root stock will be utilized for plantings and assemblages planted will be similar to species assemblages historically located within surrounding wetland forests and bayous of the area. Historic species assemblages are identified within the Louisiana Natural Heritage Program's *The Natural Communities of Louisiana* (2009). Table 2, located below, provides a list of proposed species assemblages to be planted.

Table 2: Bottomland Hardwood Proposed Species Assemblages

Scientific Name	Common Name (USDA)	Observed on site	Recorded In Parish (USDA)	Wetland Indicator Status Region 2 (USDA)	Percent Composition
<i>Quercus lyrata</i>	Overcup oak	Yes	Yes	OBL	20%
<i>Carya aquatica</i> (Michx.) Nutt.	Water hickory	Yes	Yes	OBL	20%
<i>Fraxinus pennsylvanica</i> Marsh.	Green ash	Yes	Yes	FACW	10%
<i>Celtis laevigata</i> .Willd.	Sugarberry	Yes	Yes	FACW	10%
<i>Quercus nigra</i> L.	Water oak	Yes	Yes	FAC	10%
<i>Quercus texana</i> Buckley	Nuttall oak	Yes	Yes	FACW	10%
<i>Quercus phellos</i> L.	Willow oak	Yes	Yes	FACW-	10%
<i>Ulmus americana</i> L.	American elm	Yes	Yes	FACW	10%

30.6 acres of the ABMB are designated for bald cypress-tupelo swamp rehabilitation. Rehabilitation will be accomplished through planting of bare root stock. Assemblages planted will be representative of species assemblages historically located throughout surrounding cypress swamps. Historic species assemblages are identified within the Louisiana Natural Heritage Program’s *The Natural Communities of Louisiana* (2009). Table 3, located below, provides a list of proposed species assemblages to be planted.

Table 3: Bald Cypress-Tupelo Swamp Proposed Species Assemblages

Scientific Name	Common Name (USDA)	Observed on site	Recorded In Parish (USDA)	Wetland Indicator Status Region 2 (USDA)	Percent Composition
<i>Taxodium distichum</i> (L.) Rich.	Bald Cypress	Yes	Yes	OBL	40%
<i>Fraxinus pennsylvanica</i> Marsh.	Green ash	Yes	Yes	FACW	20%
<i>Acer rubrum</i> L. var. <i>drummondii</i> (Hook. & Arn. Ex Nutt.) Sarg.	Drummond's maple	Yes	Yes	OBL	20%
<i>Nyssa aquatica</i> L.	Water Tupelo	Yes	Yes	OBL	20%

Within portions of the project site designated for re-establishment, proposed planting spacing for bare root stock is 9' x 9' for a density of 538 trees per acre.

4.1.4 Invasive Species Control

During both short-term and long-term success monitoring, invasive plant species growing within the planted areas will be treated using herbicidal treatment, if necessary.

4.1.5 Monitoring

Monitoring shall commence immediately following plantings such that a baseline is established for the ABMB. Monitoring will then occur within the spring of years 1, 3, and 5. Following year 5, monitoring shall then occur every 3 years until a minimum average canopy coverage of 80% is established.

If it is determined at any time that the ABMB is not progressing at the rate at which it should, monitoring will then begin to occur yearly until, at a minimum, the established interim success criteria is met. Once the long-term success criteria has been met, required thinning may occur following surveying. Surveying shall also be performed following thinning events.

4.2 Proposed Service Area

The ABMB is located within the Atchafalaya Watershed, HUC 08080101. Alligator Bayou Properties, LLC proposes the Atchafalaya Watershed as the Primary Service Area of the ABMB (Figure 2).

5.0 OPERATIONS

5.1 Future Ownership and Long-Term Management

5.1.1 Sponsor/Operations Manager/Long-Term Management

Alligator Bayou Properties, LLC
P.O. Box 670
Baldwin, Louisiana 70514
(337) 339-1411
Point of Contact: Donald “Rocky” Bishop, Jr.
bredimix@aol.com

5.1.2 Landowner/Long-Term Ownership

Alligator Bayou Properties, LLC
P.O. Box 670
Baldwin, Louisiana 70514
(337) 339-1411
Point of Contact: Donald “Rocky” Bishop, Jr.
bredimix@aol.com

5.1.3 Agent

Royal Engineers & Consultants, LLC
214 Third Street
Suite 2C
Baton Rouge, Louisiana 70801
(225) 751-4643
Point of Contact: April V. Dykes
adykes@royalengineering.net

5.2 Site Protection Mechanism

The ABMB will be protected in perpetuity. The servitude will be held by a conservation oriented 501(c)(3) organization to be determined and will prohibit fill, discharges, and/or other development that would diminish the quality or quantity of restored wetlands. The servitude will be associated with the property title.

5.3 Long Term Management Strategy

The Sponsor, Alligator Bayou Properties, LLC, will ensure the long-term success and sustainability of the ABMB. Mechanisms used to do so include site monitoring, vegetative plantings as necessary, exotic/invasive species control, hydrologic maintenance as necessary, establishment of financial assurances, and protection by conservation servitude. A short and long term management plan will be included within the Mitigation Banking Instrument.

5.4 Sponsor Qualifications

The owner of Alligator Bayou Properties, LLC, Mr. Donald “Rocky” Bishop, Jr., has owned and managed over 3,000 acres of agricultural and recreational lands for over 30+ years. Mr. Bishop currently employs a team of full time land managers to assist in the management of his land.

6.0 CONCLUSION

The ABMB has the potential to re-establish 274.7 acres of bottomland hardwood habitat and to rehabilitate 30.6 acres of bald cypress-tupelo swamp. Alligator Bayou Properties, LLC, assisted by Royal Engineers & Consultants, has determined that the ABMB has a very high probability of success based upon an in-depth review of both historical and current data.

7.0 REFERENCES

Clean Water Act, 40 C.F.R. §230, 2013.

Clean Water Act, Navigation and Navigable Waters, 33 C.F.R. §325, 2013.

Clean Water Act, Navigation and Navigable Waters, 33 C.F.R. §332, 2013.

Lichvar, R.W., M. Butterwick, N.C. Melvin, and W.N. Kirchner. *The National Wetland Plant List: 2014 Update of Wetland Ratings*. Phytoneuron 2014-41: 1-42. 2014.

Louisiana's 2012 Integrated Report and 303(d) List. Louisiana Department of Environmental Quality, 2012.

<<http://www.deq.louisiana.gov/portal/DIVISIONS/WaterPermits/WaterQualityAssessment/WaterQualityInventorySection305b.aspx>>

Louisiana's Nonpoint Source Management Plan. Louisiana Department of Environmental Quality, 2012. <http://nonpoint.deq.louisiana.gov/docs/000002_NPS_Management_Plan_1.pdf>

National Lists of Hydric Soils; All States. U.S. Department of Agriculture Natural Resources Conservation Service, 2014. <<http://www.soils.usda.gov>>

National Oceanic and Atmospheric Administration National Weather Service Weather Forecast Office. *Climate Information Yearly Climate Summaries for Lake Charles, Louisiana*. <<http://www.srh.noaa.gov/lch/?n=climate>>

National Wetland Plant List, Version 3.2. U.S. Army Corps of Engineers, 2014. <http://wetland_plants.usace.army.mil/>

The Natural Communities of Louisiana. Louisiana Department of Wildlife and Fisheries Louisiana Natural Heritage Program, 2009.

<http://www.wlf.louisiana.gov/sites/default/files/pdf/page_wildlife/6776-are%20Natural%20Communities/LA_NAT_COM.pdf>

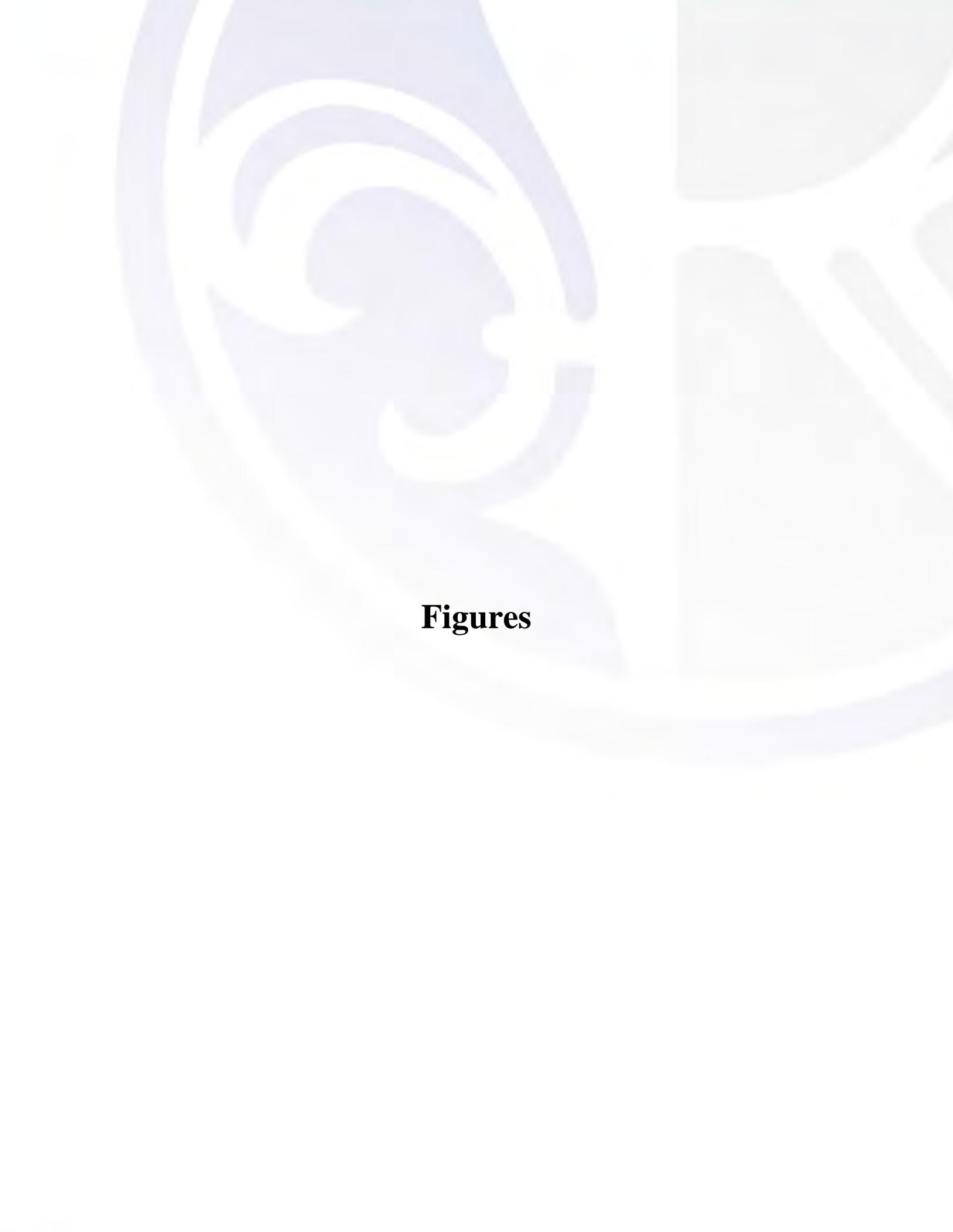
U.S. Department of Agriculture Natural Resources Conservation Service. Natural Resources Conservation Service, Louisiana Agricultural Experiment Station, and Louisiana Soil and Water Conservation Committee. *Soil Survey of Avoyelles Parish, Louisiana*. Washington D.C.: National Cooperative Soil Survey, 1986.

U.S. Department of Agriculture Natural Resources Conservation Service National Plants Database. <<http://plants.usda.gov>>

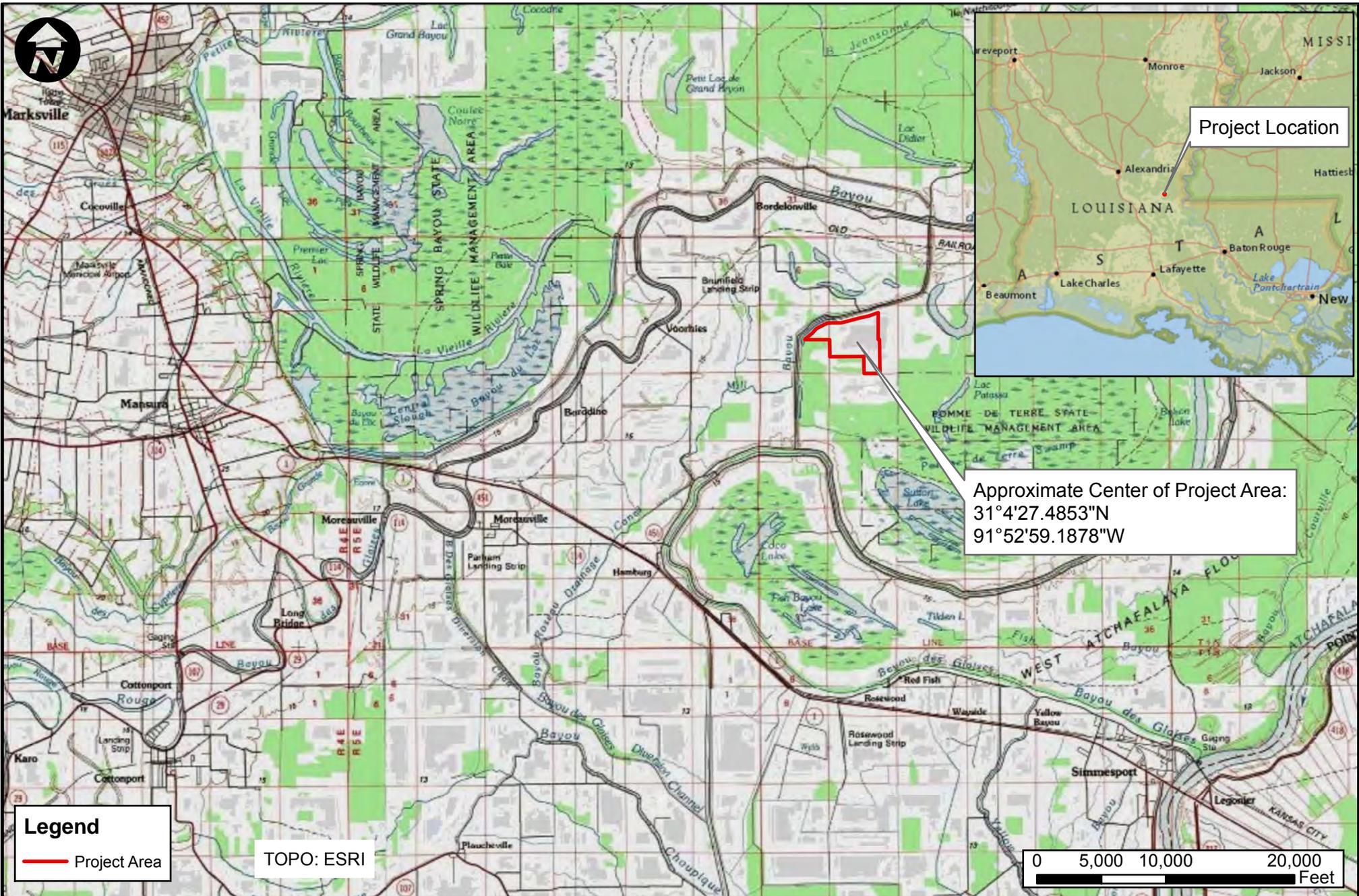
U.S. Department of Agriculture Natural Resources Conservation Service Web Soil Survey. *Custom Soil Resources Report for Avoyelles Parish, Louisiana*. 2014.

<<http://www.websoilsurvey.sc.egov.usda.gov>>

U.S. Fish and Wildlife Service National Wetlands Inventory. <<http://www.fws.gov/wetlands/>>



Figures

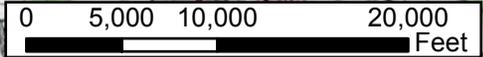


Legend

— Project Area

TOPO: ESRI

Approximate Center of Project Area:
 31°4'27.4853"N
 91°52'59.1878"W



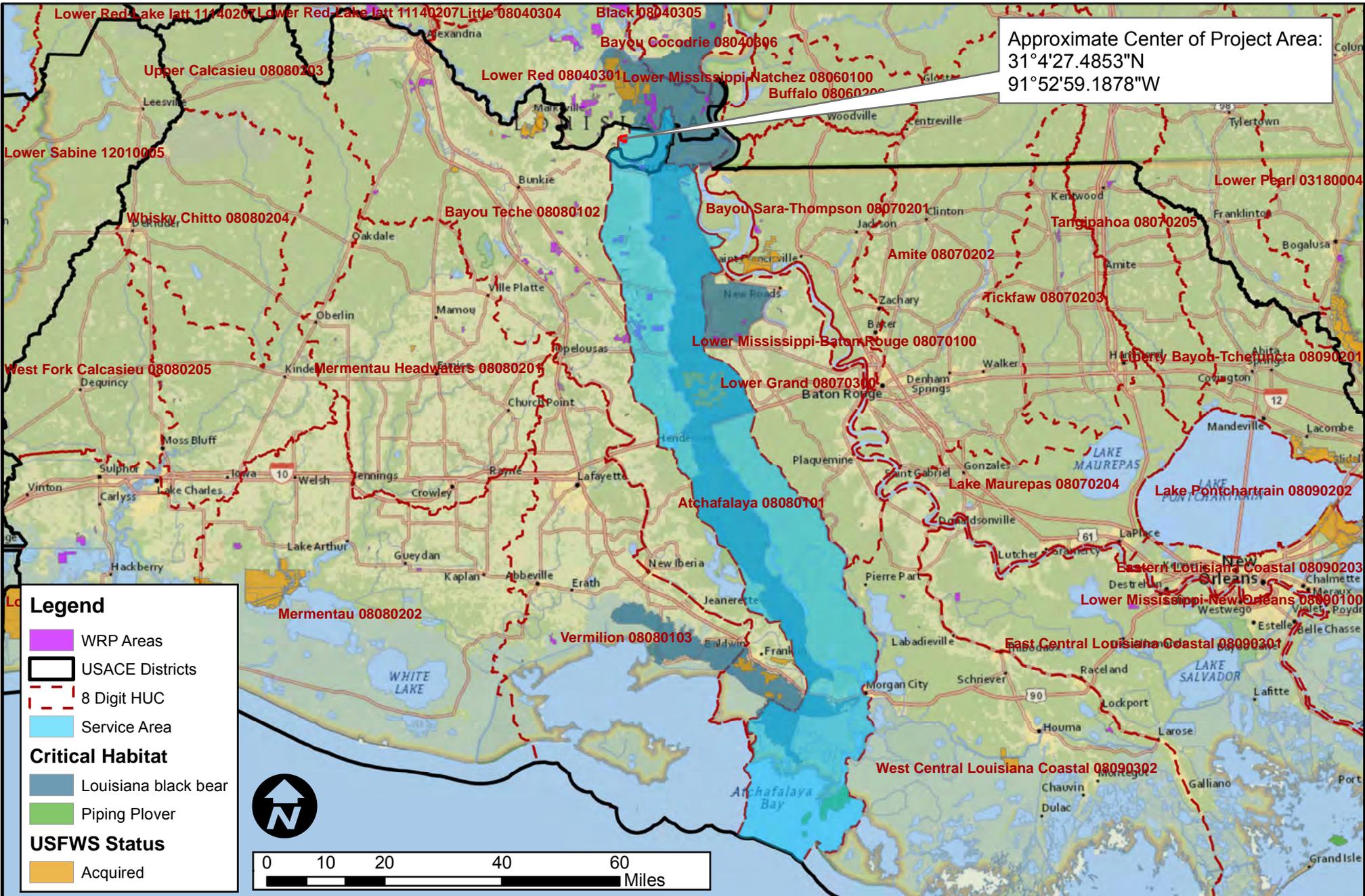
**ROYAL ENGINEERS
& CONSULTANTS, LLC**
 1231 Camellia Boulevard
 Lafayette, LOUISIANA 70508

REV.	DATE	DESCRIPTION	BY:

CLIENT:
**Alligator Bayou
 Properties, LLC**

TITLE			
VICINTIY MAP			
PROJ. NAME: ALLIGATOR BAYOU MB			
DES: LL	SCALE: AS SHOWN		
DR: LL	JOB No. 2014-29	SHEET No.	REV.
CH: AD	DATE: 1/15/2015		
APP: AD			

Approximate Center of Project Area:
 31°4'27.4853"N
 91°52'59.1878"W

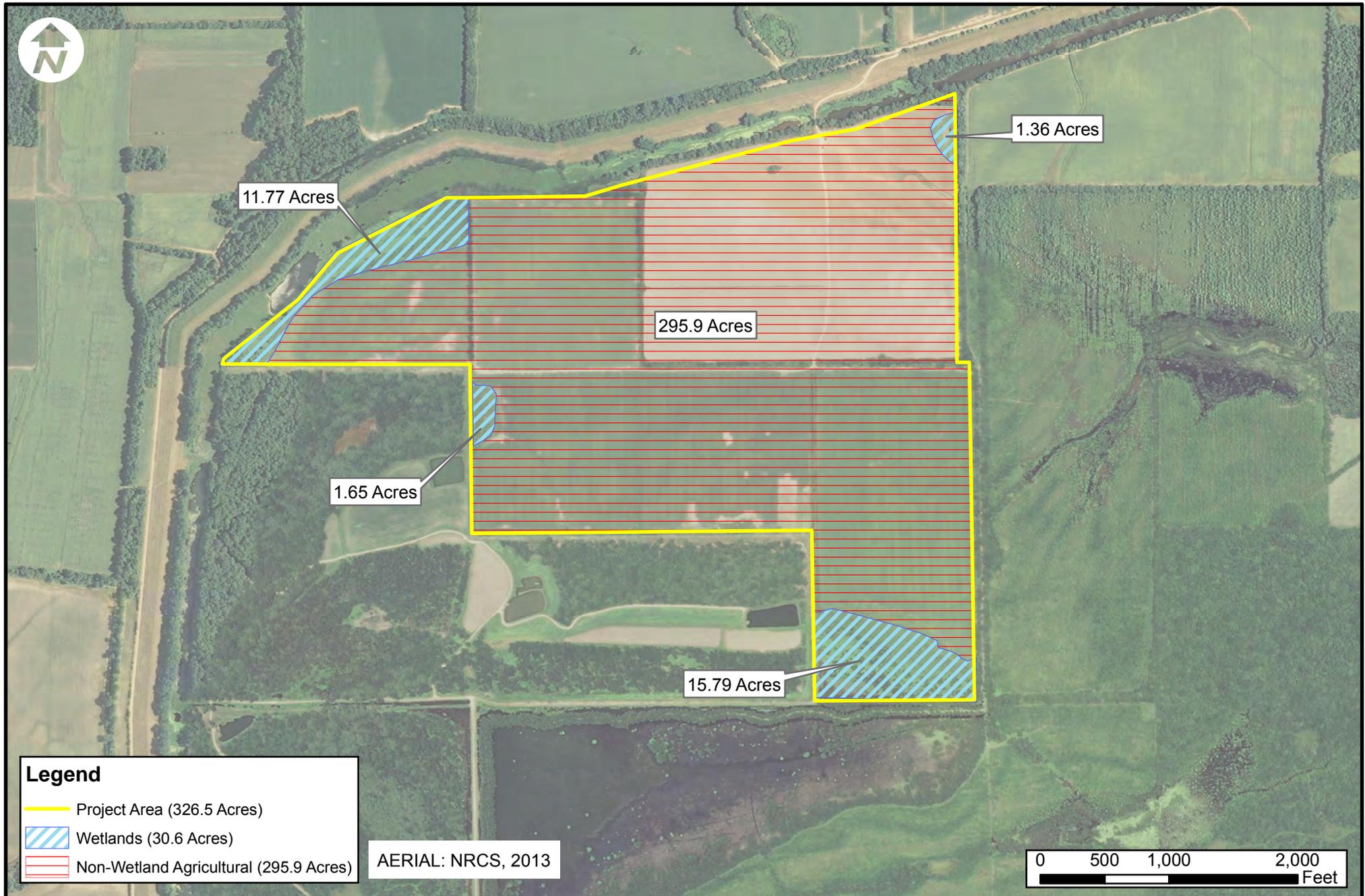


**ROYAL ENGINEERS
& CONSULTANTS, LLC**
 1231 Camellia Boulevard
 Lafayette, LOUISIANA 70508

REV.	DATE	DESCRIPTION	BY:

CLIENT:
**Alligator Bayou
 Properties, LLC**

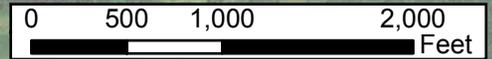
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SERVICE AREA MAP			
PROJ. NAME: ALLIGATOR BAYOU MB			
DES: LL	SCALE: AS SHOWN		
DR: LL	JOB No. 2014-29	SHEET No.	REV.
CH: AD	DATE: 1/22/2015		
APP: AD			



Legend

- Project Area (326.5 Acres)
- Wetlands (30.6 Acres)
- Non-Wetland Agricultural (295.9 Acres)

AERIAL: NRCS, 2013

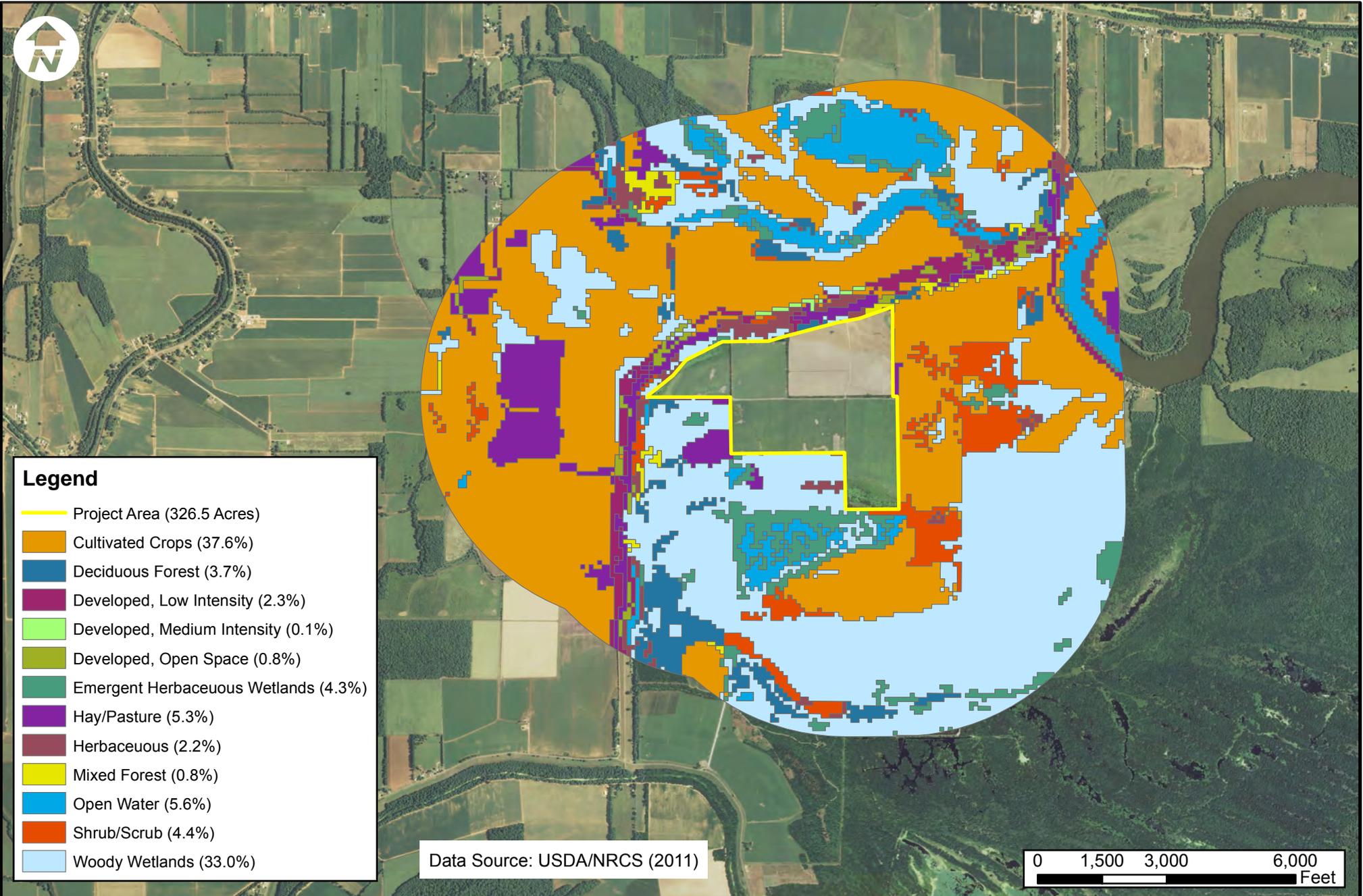


**ROYAL ENGINEERS
& CONSULTANTS, LLC**
1231 Camellia Boulevard
Lafayette, LOUISIANA 70508

REV.	DATE	DESCRIPTION	BY:

CLIENT: **Alligator Bayou Properties, LLC**

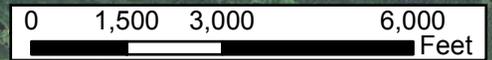
TITLE			
CURRENT CONDITIONS MAP			
PROJ. NAME: ALLIGATOR BAYOU MB			
DES: LL	SCALE: AS SHOWN		
DR: LL	JOB No. 2014-29	SHEET NO.	REV.
CH: AD			
APP: AD	DATE: 1/22/2015		



Legend

- Project Area (326.5 Acres)
- Cultivated Crops (37.6%)
- Deciduous Forest (3.7%)
- Developed, Low Intensity (2.3%)
- Developed, Medium Intensity (0.1%)
- Developed, Open Space (0.8%)
- Emergent Herbaceous Wetlands (4.3%)
- Hay/Pasture (5.3%)
- Herbaceous (2.2%)
- Mixed Forest (0.8%)
- Open Water (5.6%)
- Shrub/Scrub (4.4%)
- Woody Wetlands (33.0%)

Data Source: USDA/NRCS (2011)



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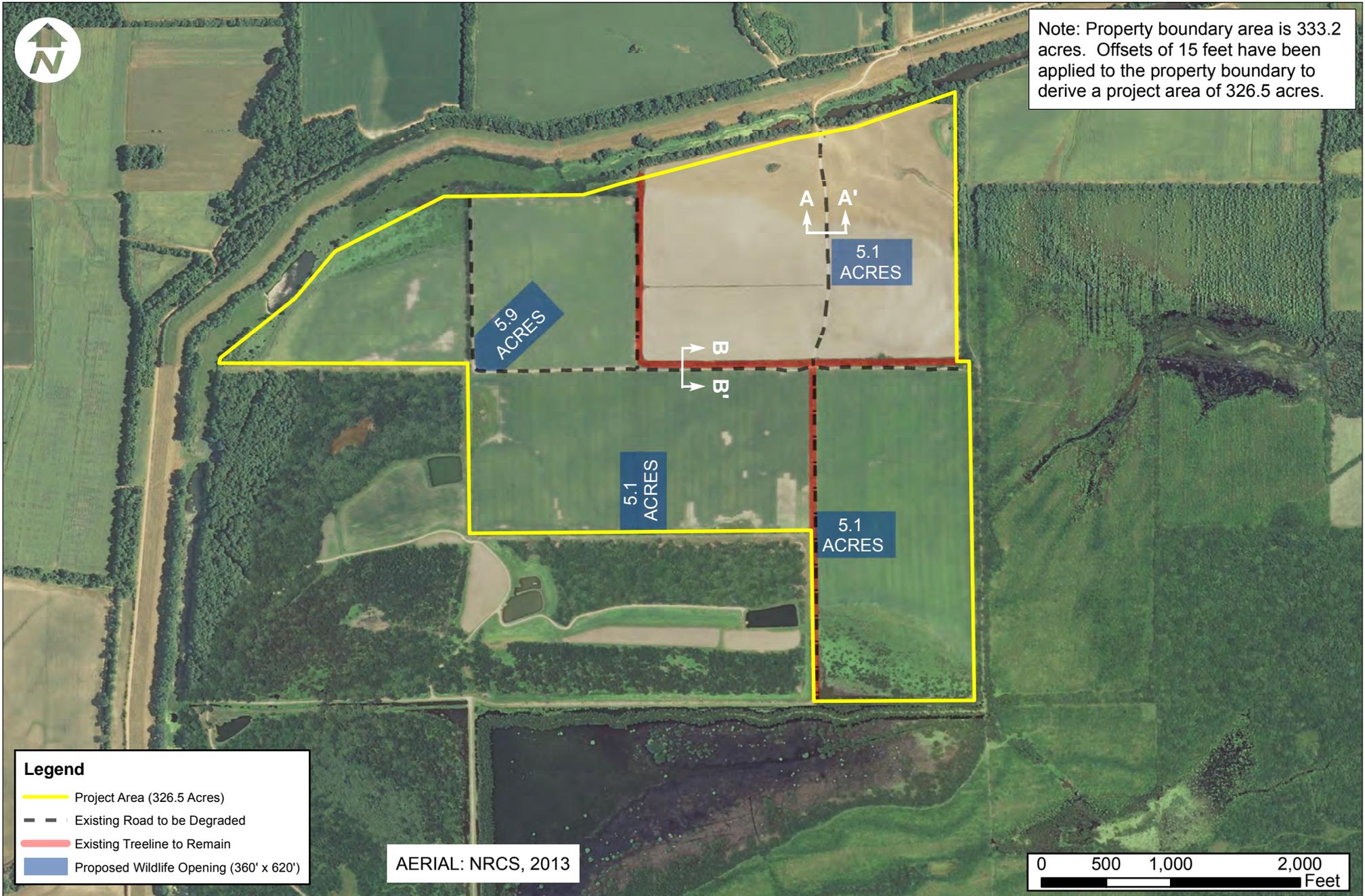
REV.	DATE	DESCRIPTION	BY:

CLIENT: **Alligator Bayou Properties, LLC**

TITLE			
SURROUNDING LANDUSE			
PROJ. NAME: ALLIGATOR BAYOU MB			
DES: LL	SCALE: AS SHOWN		
DR: LL	JOB No. 2014-29	SHEET NO.	REV.
CH: AD			
APP: AD	DATE: 1/22/2015		



Note: Property boundary area is 333.2 acres. Offsets of 15 feet have been applied to the property boundary to derive a project area of 326.5 acres.



Legend

- Project Area (326.5 Acres)
- Existing Road to be Degraded
- Existing Treeline to Remain
- Proposed Wildlife Opening (360' x 620')

AERIAL: NRCS, 2013



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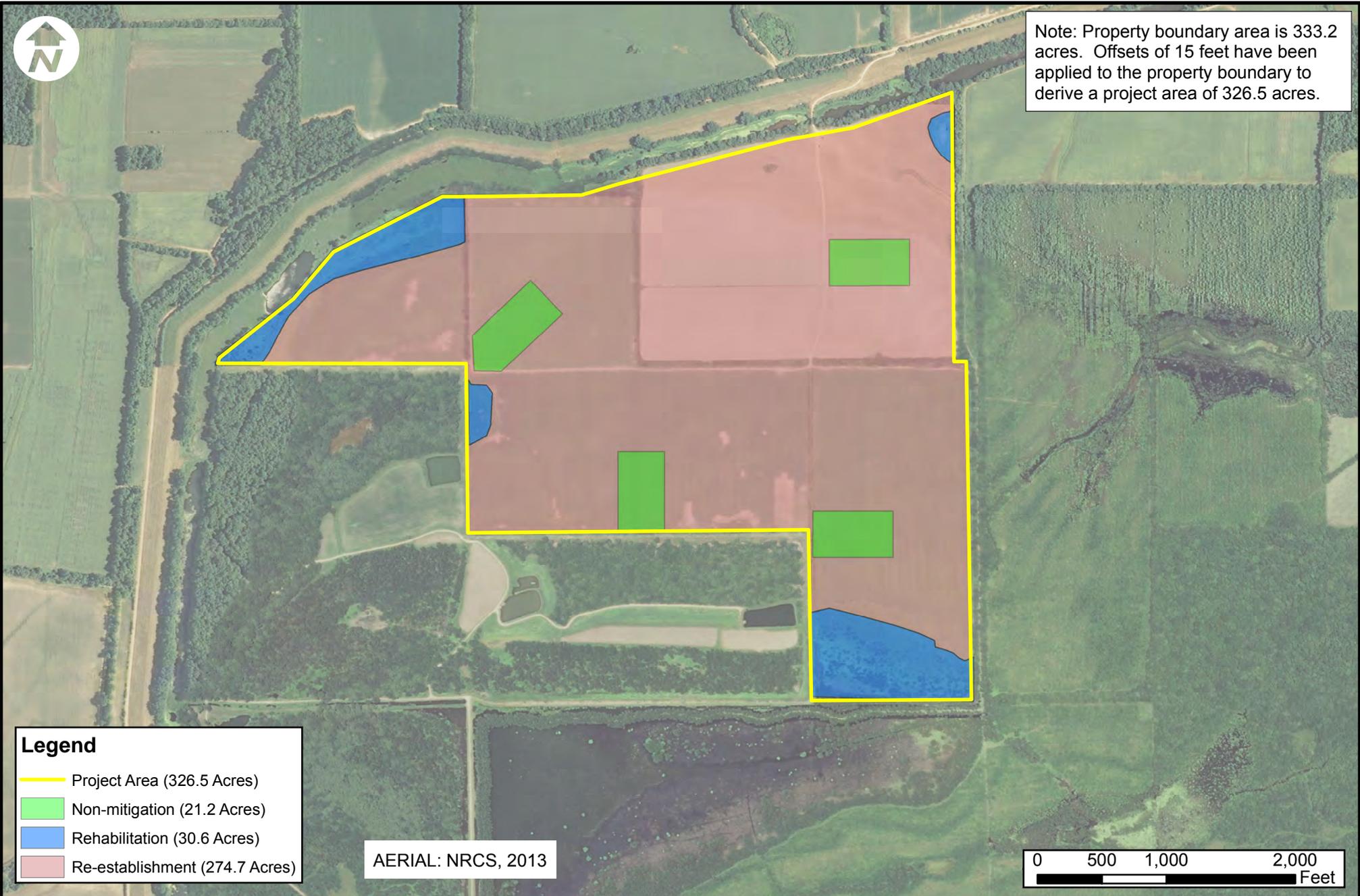
REV.	DATE	DESCRIPTION	BY:

CLIENT: **Alligator Bayou Properties, LLC**

TITLE			
RESTORATION PLAN			
PROJ. NAME: ALLIGATOR BAYOU MB			
DES: LL	SCALE: AS SHOWN		
DR: LL	JOB No. 2014-29	SHEET NO.	REV.
CH: AD			
APP: AD	DATE: 1/27/2015		



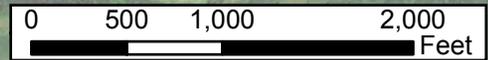
Note: Property boundary area is 333.2 acres. Offsets of 15 feet have been applied to the property boundary to derive a project area of 326.5 acres.



Legend

- Project Area (326.5 Acres)
- Non-mitigation (21.2 Acres)
- Rehabilitation (30.6 Acres)
- Re-establishment (274.7 Acres)

AERIAL: NRCS, 2013

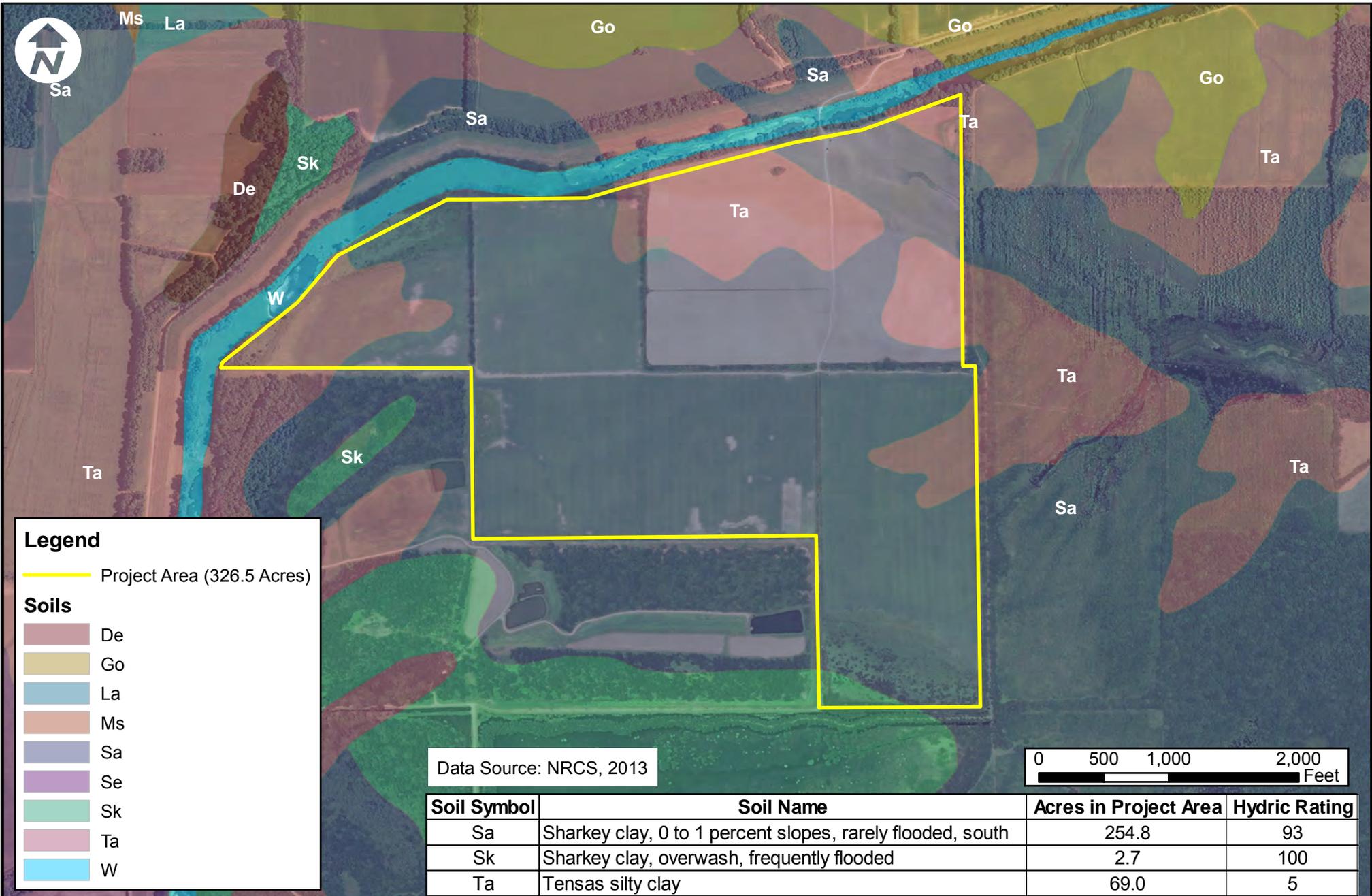


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Lafayette, LOUISIANA 70508

REV.	DATE	DESCRIPTION	BY:

CLIENT:
**Alligator Bayou
Properties, LLC**

TITLE			
PROPOSED RESTORATION TYPES			
PROJ. NAME: ALLIGATOR BAYOU MB			
DES: LL	SCALE: AS SHOWN		
DR: LL	JOB No. 2014-29	SHEET NO.	REV.
CH: AD	DATE: 1/22/2015		
APP: AD			



Legend

— Project Area (326.5 Acres)

Soils

- De
- Go
- La
- Ms
- Sa
- Se
- Sk
- Ta
- W

Data Source: NRCS, 2013



Soil Symbol	Soil Name	Acres in Project Area	Hydric Rating
Sa	Sharkey clay, 0 to 1 percent slopes, rarely flooded, south	254.8	93
Sk	Sharkey clay, overwash, frequently flooded	2.7	100
Ta	Tensas silty clay	69.0	5



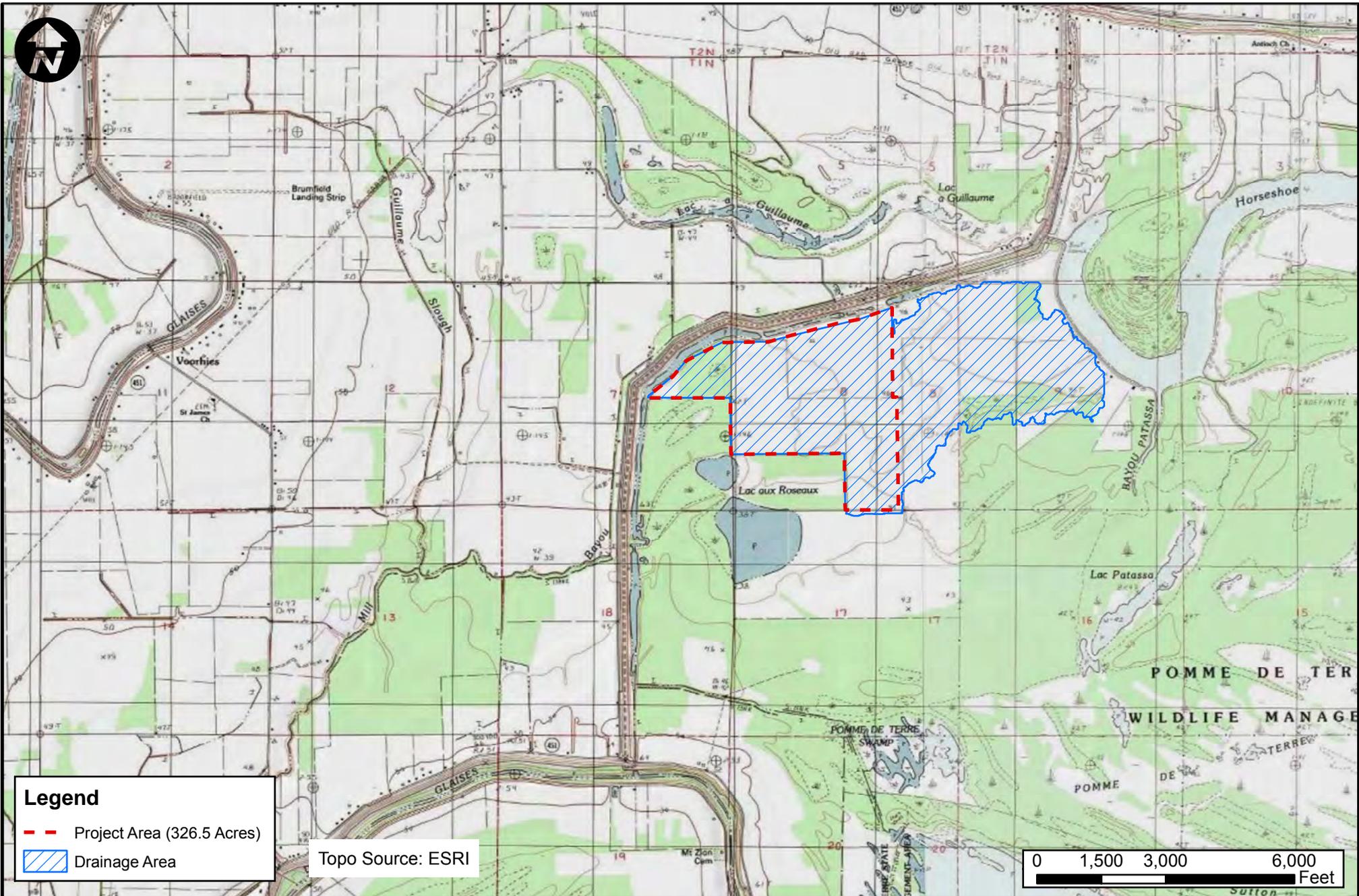
**ROYAL ENGINEERS
& CONSULTANTS, LLC**

1231 Camellia Boulevard
Lafayette, LOUISIANA 70508

REV.	DATE	DESCRIPTION	BY:

CLIENT: **Alligator Bayou Properties, LLC**

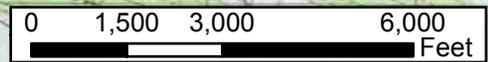
TITLE			
SOILS MAP			
PROJ. NAME: ALLIGATOR BAYOU MB			
DES: LL	SCALE: AS SHOWN		
DR: LL	JOB No. 2014-29	SHEET NO.	REV.
CH: AD			
APP: AD	DATE: 1/15/2015		



Legend

- Project Area (326.5 Acres)
- Drainage Area

Topo Source: ESRI



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Lafayette, LOUISIANA 70508

REV.	DATE	DESCRIPTION	BY:

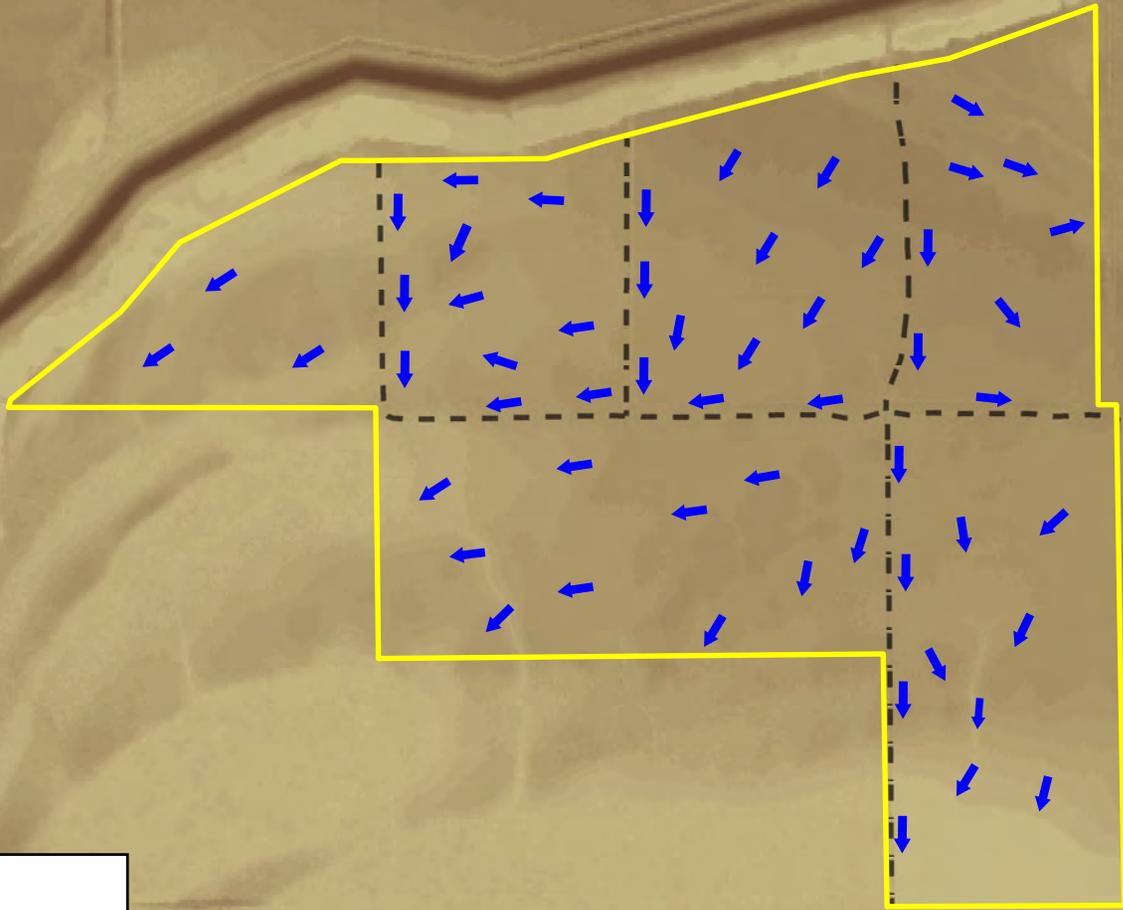
CLIENT:

Alligator Bayou
Properties, LLC

TITLE

DRAINAGE AREA

PROJ. NAME: ALLIGATOR BAYOU MB			
DES: LL	SCALE: AS SHOWN		
DR: LL	JOB No. 2014-29	SHEET No.	REV.
CH: AD			
APP: AD	DATE: 1/22/2015		



Legend

- Project Area (326.5 Acres)
- - - Existing Road to be Degraded

Elevation (ft)

High : 67
 Low : 0

Lidar Source: LSU Atlas



**ROYAL ENGINEERS
& CONSULTANTS, LLC**

1231 Camellia Boulevard
 Lafayette, LOUISIANA 70508

REV.	DATE	DESCRIPTION	BY:

CLIENT:

Alligator Bayou
 Properties, LLC

TITLE			
CURRENT HYDROLOGY			
PROJ. NAME: ALLIGATOR BAYOU MB			
DES: LL	SCALE: AS SHOWN	SHEET NO.	REV.
DR: LL	JOB No. 2014-29		
CH: AD	DATE: 12/1/2014		
APP: AD			



Legend

— Project Area (326.5 Acres)

Elevation (ft)

High : 67

Low : 0

Lidar Source: LSU Atlas



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REV.	DATE	DESCRIPTION	BY:

CLIENT:

Alligator Bayou
Properties, LLC

TITLE

PROPOSED HYDROLOGY

PROJ. NAME: ALLIGATOR BAYOU MB			
DES: LL	SCALE: AS SHOWN	SHEET NO.	REV.
DR: LL	JOB No. 2014-29		
CH: AD	DATE: 12/1/2014		
APP: AD			

EXISTING GRADE

+45.4 EL

+46.4 EL

8'

1'

EXISTING ROAD
TO BE DEGRADED

TYPICAL CROSS SECTION A
SCALE: 1"=2'

EXISTING GRADE

+44.0 EL

+45.0 EL

8'

1'

EXISTING ROAD
TO BE DEGRADED

TYPICAL CROSS SECTION B
SCALE: 1"=2'



**ROYAL ENGINEERS
& CONSULTANTS, LLC**
3909A Ambassador Caffery Parkway
Lafayette, LOUISIANA 70503

REV.	DATE	DESCRIPTION	BY

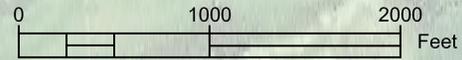
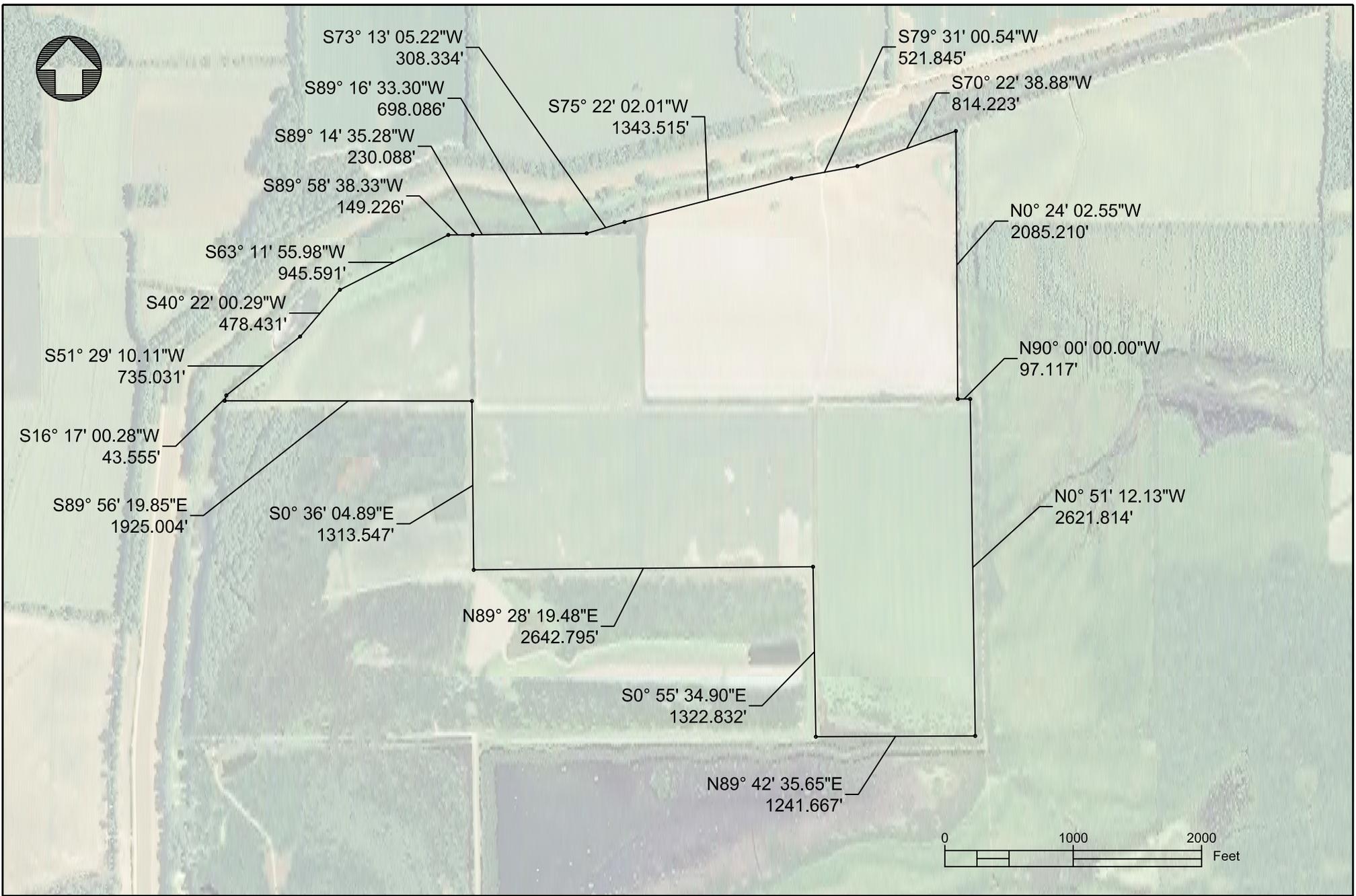
CLIENT:

**Alligator Bayou
Properties, LLC**

TITLE:

TYPICAL CROSS SECTIONS

PROJ. NAME: ALLIGATOR BAYOU MITIGATION BANK			
DES: BT	SCALE: AS SHOWN		
DR: LL	JOB No. 2014-39	SHEET NO.	REV.
CH: AD	DATE: 1/25/2015		
APP: AD			

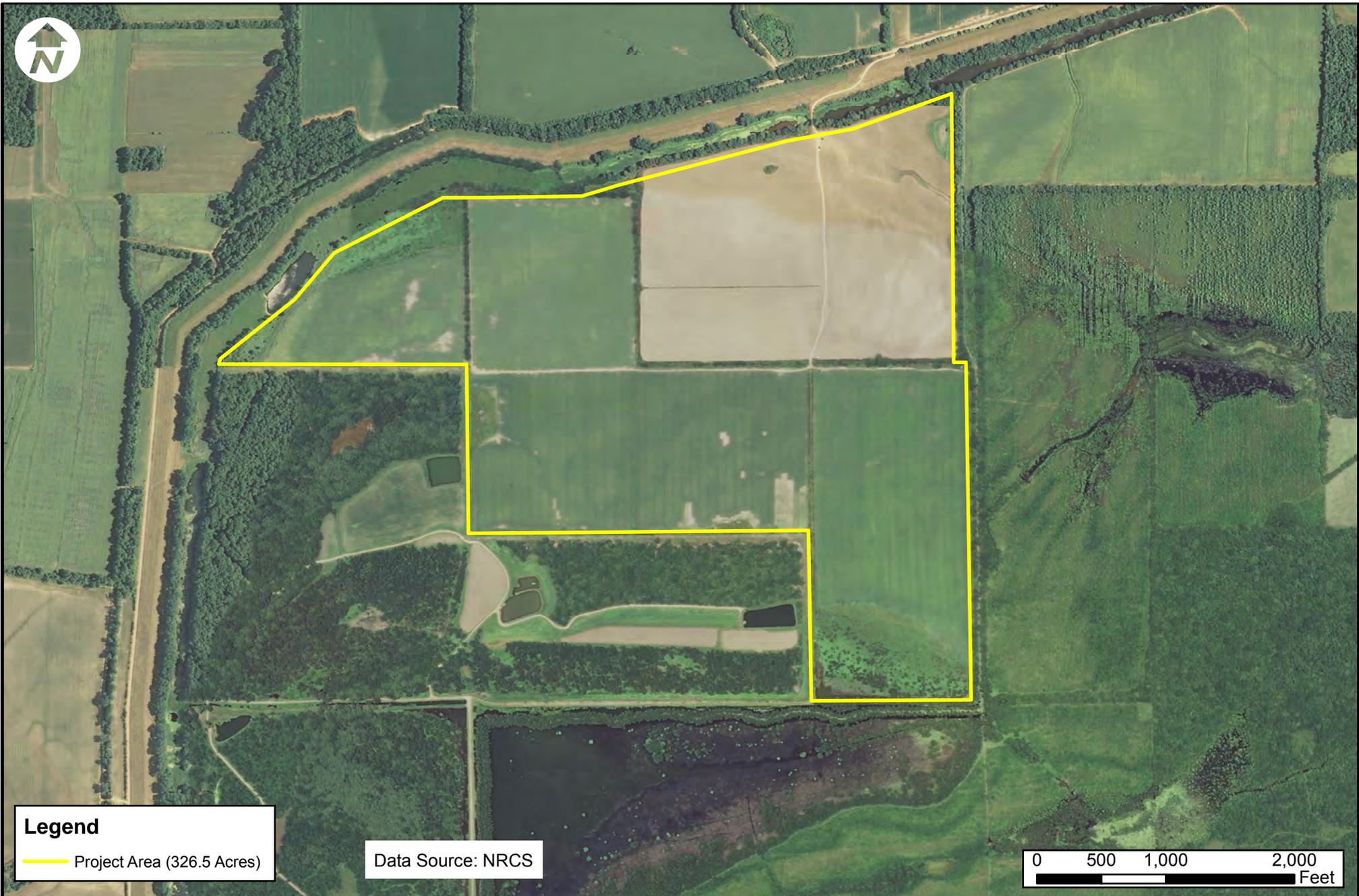


**ROYAL ENGINEERS
& CONSULTANTS, LLC**
3909A Ambassador Caffery Parkway
Lafayette, LOUISIANA 70503

REV.	DATE	DESCRIPTION	BY

CLIENT:
**Alligator Bayou
Properties, LLC**

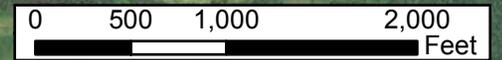
TITLE: PROJECT BOUNDARY			
PROJ. NAME:	ALLIGATOR BAYOU MB		
DES:	BT	SCALE:	AS SHOWN
DR:	LL	JOB No.	2014-39
CH:	AD	SHEET NO.	
APP:	AD	DATE:	1/20/2015



Legend

— Project Area (326.5 Acres)

Data Source: NRCS



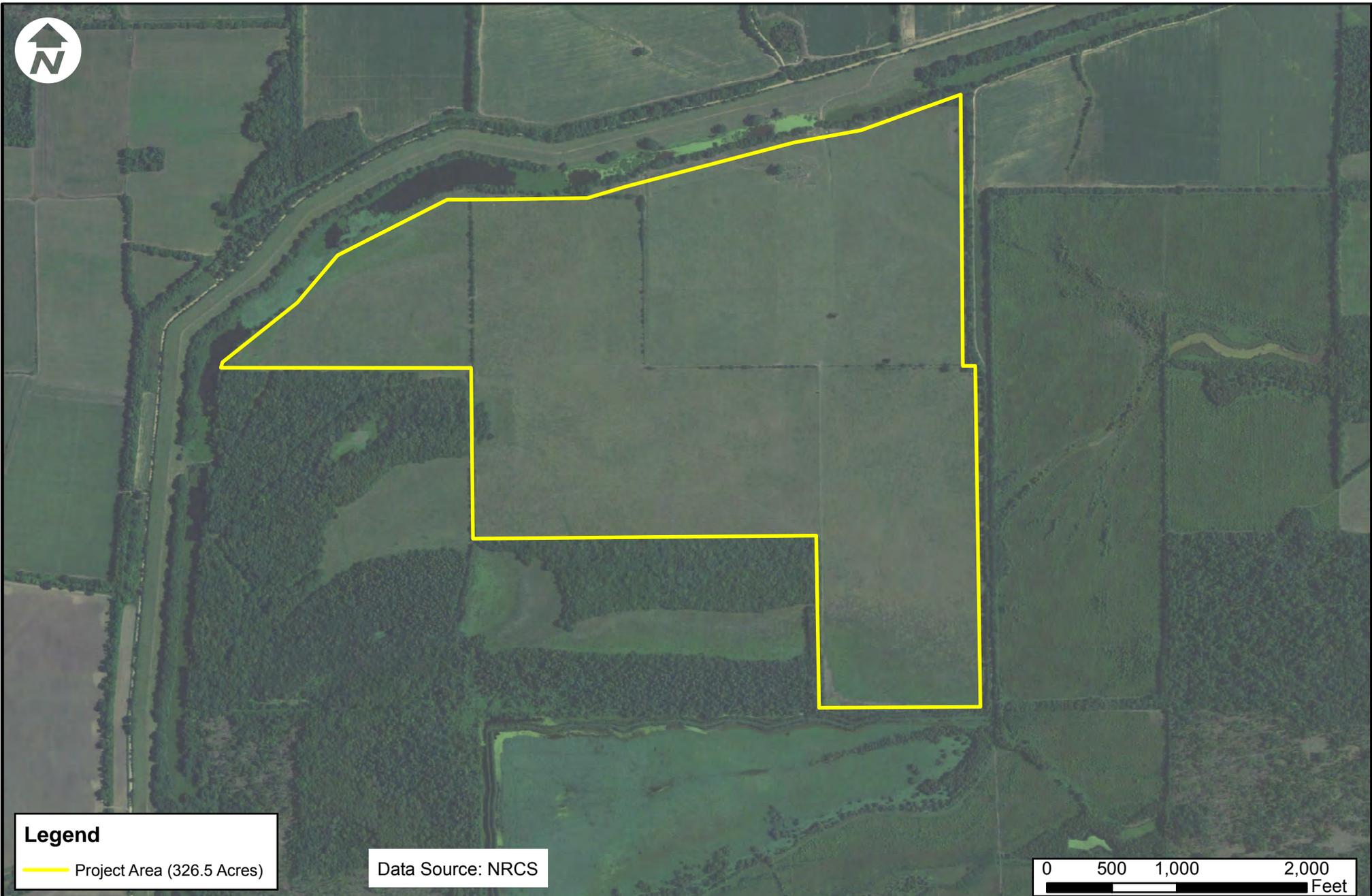
**ROYAL ENGINEERS
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1231 Camellia Boulevard
Lafayette, LOUISIANA 70508

REV.	DATE	DESCRIPTION	BY:

CLIENT:

Alligator Bayou
Properties, LLC

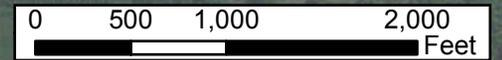
TITLE			
HISTORICAL AERIAL 2013			
PROJ. NAME: ALLIGATOR BAYOU MB			
DES: LL	SCALE: AS SHOWN		
DR: LL	JOB No. 2014-29	SHEET NO.	REV.
CH: AD			
APP: AD	DATE: 1/16/2015		



Legend

— Project Area (326.5 Acres)

Data Source: NRCS



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1231 Camellia Boulevard
Lafayette, LOUISIANA 70508

REV.	DATE	DESCRIPTION	BY:

CLIENT:

Alligator Bayou
Properties, LLC

TITLE			
HISTORICAL AERIAL 2005			
PROJ. NAME: ALLIGATOR BAYOU MB			
DES: LL	SCALE: AS SHOWN		
DR: LL	JOB No. 2014-29	SHEET NO.	REV.
CH: AD			
APP: AD	DATE: 1/15/2015		