DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P. O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

August 18, 2014

REPLY TO
ATTENTION OF:

Operations Division
Regulatory Branch
Project Manager
Stephen D. Pfeffer
(504) 862-2099

SUBJECT: MVN-2013-02342-MS

PUBLIC NOTICE

Interested parties are hereby notified that an application has been received by the District engineer for a Department of the Army permit to authorize the following 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).

PROPOSED BAYOU FISHER MITIGATION BANK, AMENDMENT ONE IN POINTE COUPEE PARISH

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

LOCATION OF WORK: The project area is located in Sections 36, 39 and 40 of Township 2 South, Range 7 East between the Atchafalaya and Mississippi Rivers approximately four miles northwest of Innis in Pointe Coupee Parish, Louisiana. The approximate center point of the project area is located at Latitude 30.9076° North and Longitude 91.7481° West.

CHARACTER OF WORK: The Sponsor proposes to establish an addendum to the existing Bayou Fisher Wetland Mitigation Bank to include the re-establishment of 243.7 acres of bottomland hardwoods and 120.1 acres of baldcypress swamp. The Sponsor will reforest the site with an assemblage of species indicative of bottomland hardwood and baldcypress swamp wetland forests in this area. Additional details of the proposed restoration plan are attached for review in the Amendment One of the Mitigation Banking Instrument.

The comment period will close **30 days** from the date of this public notice advertisement. Written comments, including suggestions for modifications or objections to the proposed work, stating reasons therefore, are being solicited from anyone having interest in this permit request.

Letters must reference the applicant's name and the subject number, be addressed and mailed to the above address, ATTENTION: REGULATORY BRANCH.

The decision whether to issue a permit will be based on an evaluation of the probable impact 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 that 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, consideration of property ownership and, in general, the needs and welfare of the people.

The 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 Corps of Engineers to determine whether to issue, 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 the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or 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.

No properties listed in the National Register of Historic Places are near the proposed work. The possibility exists that the proposed work may damage or destroy presently unknown archeological, scientific, pre-historical or historical sites or data. Copies of this notice are being sent to the State Archeologist and the State Historic Preservation Officer.

Our initial finding is that the proposed work would neither affect any species listed as endangered by the U.S. Department of Interior 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 Magnus-Stevens Fishery Conservation and Management Act. The applicant's proposal would result in the alteration of 0 acres of EFH utilized by various life stages of red drum and penaeid shrimp. Our initial determination is that the proposed action would not have a substantial adverse impact on EFH or federally managed fisheries in the Gulf of Mexico. Our final determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the National Marine Fisheries Service.

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

Martin S. Mayer
Chief, Regulatory Branch

BANKING INSTRUMENT AMENDMENT ONE

BAYOU FISHER MITIGATION BANK

Bottomland Hardwood Re-establishment Project

Pointe Coupee Parish, Louisiana

Sponsored By:

Delta Land Services, LLC
1090 Cinclare Drive
Port Allen, Louisiana 70767

Prepared:

July 10, 2014

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MITIGATION BANKING INSTRUMENT
AMENDMENT ONE

Bayou Fisher Mitigation Bank

The following represents the first amendment (Amendment One) to the Bayou Fisher Mitigation Bank (Bank) of which the Mitigation Banking Instrument (MBI) was approved by the U.S. Army Corps of Engineers, New Orleans District (CEMVN) on July 5, 2014. This amendment follows all provisions provided for in the MBI with the exception of those specifically provided for in this Mitigation Work Plan (MWP). This amendment follows procedures as described in Section XII.A of the July 5, 2014 MBI. This amendment is made and entered into by and among Delta Land Services, LLC (Sponsor), Mr. Danny Deshotels and Mrs. Janie Bacque′ Deshotels (Owners) and the Interagency Review Team (IRT) composed of the U.S. Army Corps of Engineers New Orleans District (CEMVN), Region VI of the U.S. Environmental Protection Agency (EPA), the U.S. Fish and Wildlife Service (FWS), and the Louisiana Department of Wildlife and Fisheries (LDWF). This MBI, Amendment One, is a binding agreement among the parties and incorporates the detailed MWP and any other attachments to the MBI, Amendment One, as a part hereof.

I. Purpose of MBI

The Purpose of the MBI remains as defined in Section I of the July 5, 2014 MBI.

II. Location and Ownership of Bank Property (Property)

A. Property Location

The Property Location is described in Section I of the Mitigation Work Plan (MWP)

B. Property Ownership

The property owner (Owner) remains as defined in Section II.B of the July 5, 2014 MBI.

C. Property Legal Definition

A certain tract or parcel of land designated as Bayou Fisher Mitigation Bank Amendment One Conservation Servitude Area located in Sections Thirty Six (36), Thirty Nine (39) & Forty (40), Township Two South (T-2-S), Range Seven East (R-7-E), Southeastern Land District, West of the Mississippi River, Parish of Pointe Coupee, State of Louisiana, containing 16,050,379 Sq. Ft. (368.466 Acres). Said tract or parcel is more particularly described as follows:

Commencing at a Point of Commencement (P.O.C.) being a found one-half inch diameter iron pipe being at the common corner of Sections Thirty Five (35), Thirty Six (36), Forty (40) and Forty One (41), Township Two South (T-2-S), Range Seven East (R-7-E); thence South 0°21’57” East along Section Line common to Sections Forty (40), Forty One (41), Forty Four

(44) and Forty Five (45), Township Two South (T-2-S), Range Seven East (R-7-E) a distance of 8004.00 feet to a found three inch diameter iron pipe; thence South 89°54'09" West a distance of 660.73 feet to a calculated point; thence North 00°06'53" East a distance of 4063.25 feet to a calculated point; thence North 88°28'35" West a distance of 5.45 feet to a calculated point; thence North 89°47'49" West a distance of 26.43 feet to a calculated point; thence North 89°47'48" West a distance of 220.13 feet to a calculated point being the Point of Beginning (P.O.B.).

thence North 89°47'48" West a distance of 187.97 feet to a calculated point; thence North 89°54'42" West a distance of 67.26 feet to a calculated point; thence North 89°58'57" West a distance of 578.45 feet to a calculated point; thence South 88°40'39" West a distance of 24.37 feet to a calculated point; thence North 76°33'30" West a distance of 17.68 feet to a calculated point; thence North 83°49'03" West a distance of 25.57 feet to a calculated point; thence North 67°49'33" West a distance of 81.01 feet to a calculated point; thence North 80°03'36" West a distance of 59.75 feet to a calculated point; thence North 75°49'30" West a distance of 343.15 feet to a calculated point; thence North 75°56'01" West a distance of 514.48 feet to a calculated point; thence North 76°10'27' West a distance of 720.79 feet to a calculated point; thence North 89°47'33" West a distance of 34.88 feet to a calculated point; thence South 0°12'27" West a distance of 634.17 feet to a calculated point; thence South 0°14'20" East a distance of 437.65 feet to a calculated point; thence South 0°36'54" East a distance of 60.68 feet to a calculated point; thence South 89°31'34" West a distance of 33.26 feet to a calculated point; thence North 44°56'03" West a distance of 16.83 feet to a calculated point; thence North 68°50'59" West a distance of 23.73 feet to a calculated point; thence North 79°18'13" West a distance of 326.76 feet to a calculated point; thence North 79°18'13" West a distance of 427.02 feet to a calculated point; thence South 0°14'45" East a distance of 536.98 feet to a calculated point; thence North 89°59'47" West a distance of 1010.12 feet to a calculated point; thence North 90°00'00" West a distance of 37.55' to a calculated point; thence North 1°21'55" East a distance of 759.84 feet to a calculated point; thence North 0°52'04" East a distance of 1498.41 feet to a calculated point; thence North 0°23'47" West a distance of 2287.81 feet to a calculated point; thence South 89°47'15" East a distance of 76.27 feet to a calculated point; thence North 28°05'09" East a distance of 41.61 feet to a calculated point; thence North 38°38'18" East a distance of 46.95 feet to a calculated point; thence North 48°04'39" East a distance of 57.72 feet to a calculated point; thence North 50°19'10" East a distance of 63.39 feet to a calculated point; thence North 45°21'06" East a distance of 63.13 feet to a calculated point; thence North 34°46'53" East a distance of 68.06 feet to a calculated point; thence North 28°58'09" East a distance of 183.64 feet to a calculated point; thence North 38°18'31" East a distance of 66.38 feet to a calculated point; thence North 47°56'22" East a distance of 56.33 feet to a calculated point; thence North 68°53'51" East a distance of 30.10 feet to a calculated point; thence South 82°03'21" East a distance of 70.04 feet to a calculated point; thence South 71°35'34" East a distance of 101.37 feet to a calculated point; thence South 74°51'01" East a distance of 67.26 feet to a calculated point; thence South 80°03'07" East a distance of 35.41 feet to a calculated point; thence South 88°34'36" East a distance of 95.36 feet to a calculated point; thence South 86°30'38" East a distance of 61.17 feet to a calculated point; thence South 74°13'09" East a distance of 15.92 feet to a calculated point; thence South 70°13'59" East a distance of 26.13 feet to a calculated point; thence South 64°32'11" East a distance of 26.88 feet to a calculated point; thence South 59°21'16" East a distance of 61.00 feet to a calculated point; thence South 53°18'38" East a

distance of 88.57 feet to a calculated point; thence South 55°08’43” East a distance of 12.34 feet to a calculated point; thence South 65°43’12” East a distance of 14.68 feet to a calculated point; thence South 76°17’36” East a distance of 18.32 feet to a calculated point; thence South 82°44’29” East a distance of 8.99 feet to a calculated point; thence North 89°59’34” East a distance of 24.72 feet to a calculated point; thence South 89°50’05” East a distance of 12.34 feet to a calculated point; thence North 76°28’43” East a distance of 7.48 feet to a calculated point; thence North 71°06’50” East a distance of 20.90 feet to a calculated point; thence North 61°11’24” East a distance of 17.04 feet to a calculated point; thence North 48°42’43” East a distance of 32.26 feet to a calculated point; thence North 29°30’48” East a distance of 64.66 feet to a calculated point; thence North 22°01’42” East a distance of 68.29 feet to a calculated point; thence North 36°39’19” East a distance of 24.79 feet to a calculated point; thence North 51°08’17” East a distance of 107.70 feet to a calculated point; thence North 46°57’08” East a distance of 26.41 feet to a calculated point; thence North 61°46’31” East a distance of 21.87 feet to a calculated point; thence North 78°01’35” East a distance of 13.21 feet to a calculated point; thence South 84°56’34” East a distance of 24.62 feet to a calculated point; thence South 71°33’54” East a distance of 39.80 feet to a calculated point; thence South 73°43’13” East a distance of 51.09 feet to a calculated point; thence South 84°18’09” East a distance of 57.29 feet to a calculated point; thence South 63°30’03” East a distance of 10.40 feet to a calculated point; thence South 29°44’42” East a distance of 27.99 feet to a calculated point; thence South 34°36’03” East a distance of 66.65 feet to a calculated point; thence South 24°05’15” East a distance of 32.33 feet to a calculated point; thence South 28°19’23” East a distance of 58.58 feet to a calculated point; thence South 23°03’30” East a distance of 125.85 feet to a calculated point; thence North 65°48’51” East a distance of 35.39 feet to a calculated point; thence North 55°27’13” East a distance of 153.32 feet to a calculated point; thence North 51°40’00” East a distance of 80.52 feet to a calculated point; thence South 67°54’20” East a distance of 37.09 feet to a calculated point; thence South 50°35’17” East a distance of 51.53 feet to a calculated point; thence South 41°48’42” East a distance of 76.38 feet to a calculated point; thence South 48°22’48” East a distance of 67.72 feet to a calculated point; thence South 53°46’12” East a distance of 48.61 feet to a calculated point; thence South 55°44’19” East a distance of 48.37 feet to a calculated point; thence South 63°37’03” East a distance of 99.75 feet to a calculated point; thence South 61°07’59” East a distance of 82.39 feet to a calculated point; thence South 56°14’03” East a distance of 40.83 feet to a calculated point; thence South 47°08’15” East a distance of 27.76 feet to a calculated point; thence South 44°56’07” East a distance of 35.20 feet to a calculated point; thence South 40°50’54” East a distance of 29.93 feet to a calculated point; thence South 38°51’35” East a distance of 50.39 feet to a calculated point; thence South 37°44’15” East a distance of 55.34 feet to a calculated point; thence South 32°07’03” East a distance of 48.08 feet to a calculated point; thence South 26°46’13” East a distance of 72.78 feet to a calculated point; thence South 27°55’15” East a distance of 132.06 feet to a calculated point; thence South 33°09’21” East a distance of 68.29 feet to a calculated point; thence South 41°24’09” East a distance of 73.54 feet to a calculated point; thence South 54°28’56” East a distance of 106.09 feet to a calculated point; thence South 61°15’23” East a distance of 156.86 feet to a calculated point; thence South 64°19’24” East a distance of 88.49 feet to a calculated point; thence South 35°26’59” West a distance of 297.46 feet to a calculated point; thence South 56°11’15” East a distance of 68.90 feet to a calculated point; thence South 59°44’37” East a distance of 241.19 feet to a calculated point; thence South 57°41’11” East a distance of 350.76 feet to a calculated point; thence South 55°21’56” East a distance of 108.40 feet to a calculated

point; thence North 18°13’43” East a distance of 480.28 feet to a calculated point; thence South 82°09’46” East a distance of 68.39 feet to a calculated point; thence North 89°03’51” East a distance of 75.63 feet to a calculated point; thence North 86°11’11” East a distance of 64.43 feet to a calculated point; thence North 87°07’31” East a distance of 56.03 feet to a calculated point; thence North 88°20’07” East a distance of 46.15 feet to a calculated point; thence South 84°53’35” East a distance of 44.02 feet to a calculated point; thence South 79°05’49” East a distance of 60.79 feet to a calculated point; thence South 69°58’14” East a distance of 55.46 feet to a calculated point; thence South 69°08’38” East a distance of 53.33 feet to a calculated point; thence South 75°15’40” East a distance of 110.92 feet to a calculated point; thence South 73°10’31” East a distance of 36.22 feet to a calculated point; thence South 76°25’55” East a distance of 35.14 feet to a calculated point; thence South 00°07’53” East a distance of 2626.90 feet to a calculated point being the Point of Beginning (P.O.B.).

The perimeter of the Property is defined by the following coordinates in decimal degrees (North American Datum of 1983 [NAD83]):

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Latitude	30.91056117	Longitude	-91.74002478

D. Recorded Liens, Encumbrances, Easements, Servitudes or Restrictions

Clear title to the Property has been documented by a title opinion (Attachment B) generated by the Law Offices of Jewell & Jewell on July 2, 2014 and will be updated two weeks prior to execution of the conservation servitude. According to the title opinion, two mortgages exist on the property. One is in favor of Travelers Insurance Company and the other is in favor of Metlife Insurance Company. These mortgages have been paid and are in the process of cancellation in the title records therefore no mortgage will be in place at the time of the filing of the conservation servitude described in Section X.A of the MBI. The Sponsor conducted a review of the Louisiana Department of Natural Resources (LDNR) Strategic Online Natural Resources Information System (SONRIS) database for oil and gas activity. This review revealed no active or historic wells within or in close proximity to the Bank. The closest well location was 1.6 miles north of the Property and was abandoned in 1946.

III. RESPONSIBILITIES OF PARTIES

The responsibilities of the parties are as described in Sections A through E of the July 5, 2014 MBI.

IV. GOALS AND OBJECTIVES

Goals, objectives and contributions to overall watershed/regional functions provided by the Bank Addendum are described in Section II of the MWP (Attachment C).

V. PERFORMANCE STANDARDS

Performance standards used to measure the success of the Bank are described in Section VIII of the MWP (Attachment C).

VI. MONITORING PLAN AND REPORTING PROTOCOLS

Monitoring and reporting remain as defined in Sections VI.A and VI.B of the July 5, 2014 MBI. Monitoring and Reporting requirements are established in Section IX and Section X of the MWP, respectively (Attachment C).

VII. CONTINGENCIES AND REMEDIAL ACTIONS

Contingencies and remedial actions remain as defined in Section VII.A through Section VII.E of the July 5, 2014 MBI. The Adaptive Management Plan is defined in Section XII of the MWP (Attachment C).

VIII. INSPECTION BY IRT AND HOLDER

Inspection provisions remain as defined in the July 5, 2014 MBI.

IX. FINANCIAL PROTECTION

A. The Sponsor agrees to provide Financial Assurances sufficient to ensure satisfactory completion for the work described in the Mitigation Work Plan and the Adaptive Management Plan. The estimate of funds, funding mechanism, and schedule of release are identified in Section XIV. A of the MWP (Attachment C).

B. The Sponsor shall provide copies of annual status of the financial assurances to CEMVN upon request and/or in their monitoring reports.

C. The financial assurances shall guarantee payment to a third party, as determined appropriate by the CEMVN in consultation with the IRT, in the event that the Sponsor does not fulfill its obligations to perform, as specified in this MBI.

D. Payment to Sponsor, or if necessary, to a third party as identified by CEMVN, of a specified amount of the financial assurances shall be made upon written notification by CEMVN to the financial institution.

X. LONG-TERM PROTECTION AND MAINTENANCE

All provisions regarding the conservation servitude are defined in Section X.A of the July 5, 2014 MBI. The Long-Term Maintenance Plan is outlined in Section XIII of the MWP (Attachment C). The funding of long-term maintenance is described in Section XIV.B of the MWP (Attachment C).

XI. BANK USE

Provisions governing bank use remain as defined in the Section XI of the July 5, 2014 MBI unless otherwise specified below.

A. Bank Service Area

The Bank Service Area remains as defined in Section XI.A of the July 5, 2014 MBI.

B. Projects Eligible to Use the Bank

Provisions for project eligible to use the bank remain as defined in Section XI.B of the July 5, 2014 MBI.

C. Determination of Bank Credits

Credit Determination is defined in Section XI.A of the MWP (Attachment C).

D. Schedule of Credit Availability

Credit release is tied to achieving all the milestones within the success criteria at specific monitoring times as outlined in Section XI.B of the MWP (Attachment C).

E. Credit Transactions

Provisions for credit transactions remain as defined in Section XI.E of the July 5, 2014 MBI.

F. Requirements for Initial Credit Release

No credits will be released until the Sponsor has provided a signed statement stating that all of the following requirements have been met and has provided copies of the following executed documents, as appropriate:

1. Permits: Obtain all necessary permits or other authorizations needed to construct and maintain the Bank. This MBI Amendment does not fulfill or substitute for such authorization.

2. Holder Qualifications: Evidence that the entity proposed to hold the conservation servitude is a CEMVN approved Holder.

3. Conservation Servitude: A copy of the executed perpetual conservation servitude with a copy of this MBI Amendment as recorded in the Mortgage and Conveyances Records Office of the parish in which the Property is located.

4. Financial Assurance: Documentation establishing the C&E financial assurances stipulated in Section IX and the Long-Term Maintenance and Protection endowment described in Section X of this MBI.

5. Property Ownership: A title search that identifies all known encumbrances including mortgages, liens, rights-of-way, servitudes, easements, etc. and documentation that the conservation servitude is not subordinate to any other easement or major lien. Sponsor shall provide a copy of the recorded document evidencing that any mortgages encumbering the property have been subordinated to the conservation servitude.

6. Execution of MBI Amendment: MBI Amendment signed by the Owner, Sponsor and CEMVN District Commander or his representative and approval by all participant IRT agencies; and

7. Work Schedule: Submission of the timetable for implementing work identified in the permit, MWP or elsewhere in this MBI Amendment.

G. Subsequent Credit Releases

Provisions for credit transactions remain as defined in Section XI.G of the July 5, 2014 MBI.

XII. MODIFICATION OF THIS MBI

Modifications of this MBI, including minor modifications, addenda to the Bank, exclusion of approved mitigation site, termination of the MBI, or termination of participation remain as defined in Section XII of the July 5, 2014 MBI.

XIII. TRANSFER OF PROPERTY OR SPONSORSHIP

Transfer of Property or Sponsorship remains as defined in Section XIII of the July 5, 2014 MBI.

XIV. ESTABLISHMENT OF STEWARD

Establishment of Steward provisions remain as defined Section XIII of the July 5, 2014 MBI.

XV. BANK LIFE

Provisions for Bank Life remain as defined in Section XIII of the July 5, 2014 MBI.

XVI. OTHER PROVISIONS

All other provisions remain as defined in Section XVI A through G of the July 5, 2014 MBI.

_____ _____

DANNY DESHOTELS DATE
OWNER

_____ _____

JANIE BACQUE′ DESHOTELS DATE
OWNER

_____ _____

GEORGE GUERIN DATE
DELTA LAND SERVICES, LLC

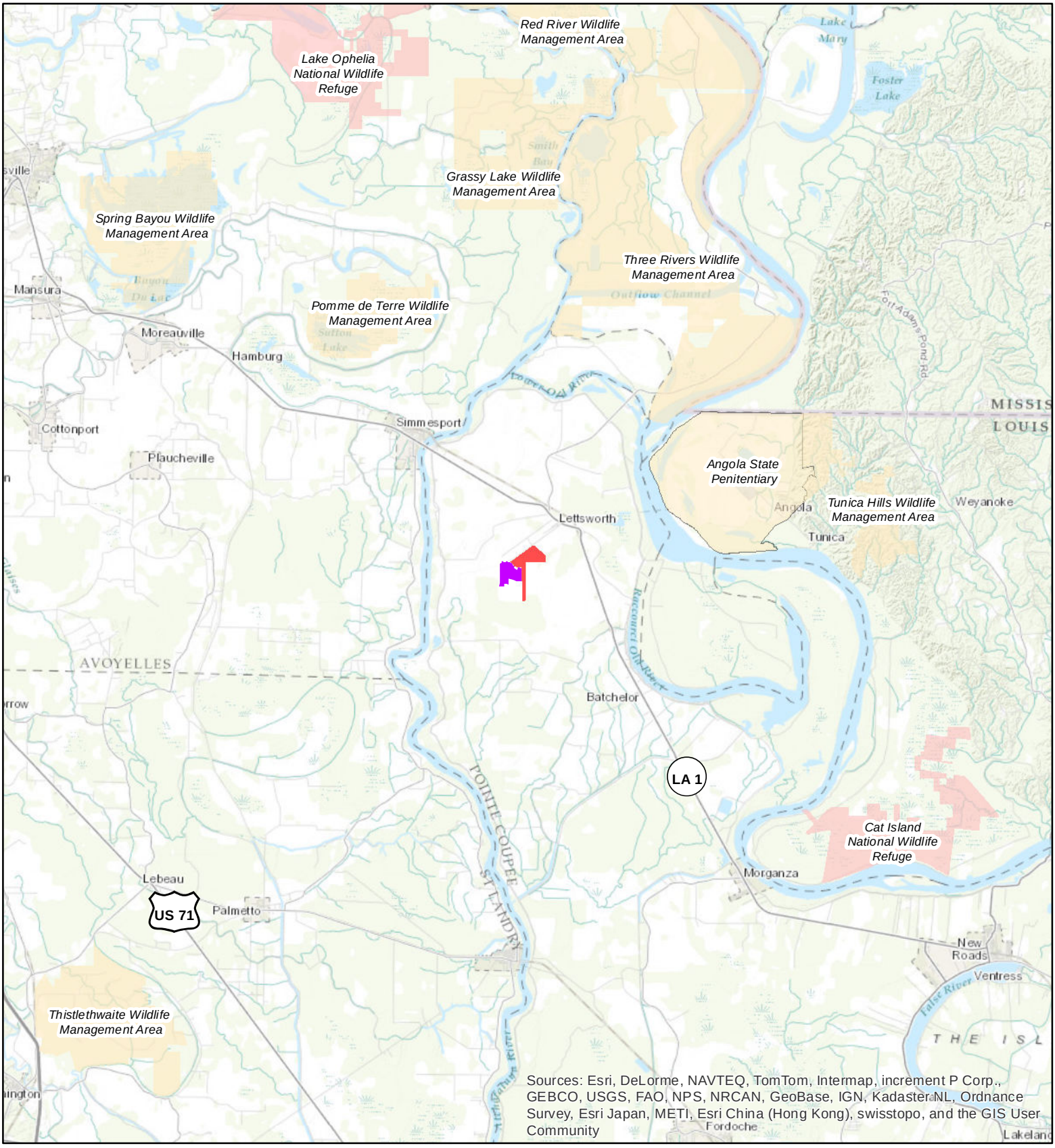
_____ _____

MARTIN S. MAYER DATE
CHIEF, REGULATORY BRANCH

ATTACHMENTS

ATTACHMENT A

MAPS



Legend

- Bayou Fisher Mitigation Bank Amendment One (368.5 Acres)
- Bayou Fisher Mitigation Bank (507.8 Acres)
- National Wildlife Refuges
- State Lands

5 2.5 0 5

Miles

Bayou Fisher Mitigation Bank Amendment One

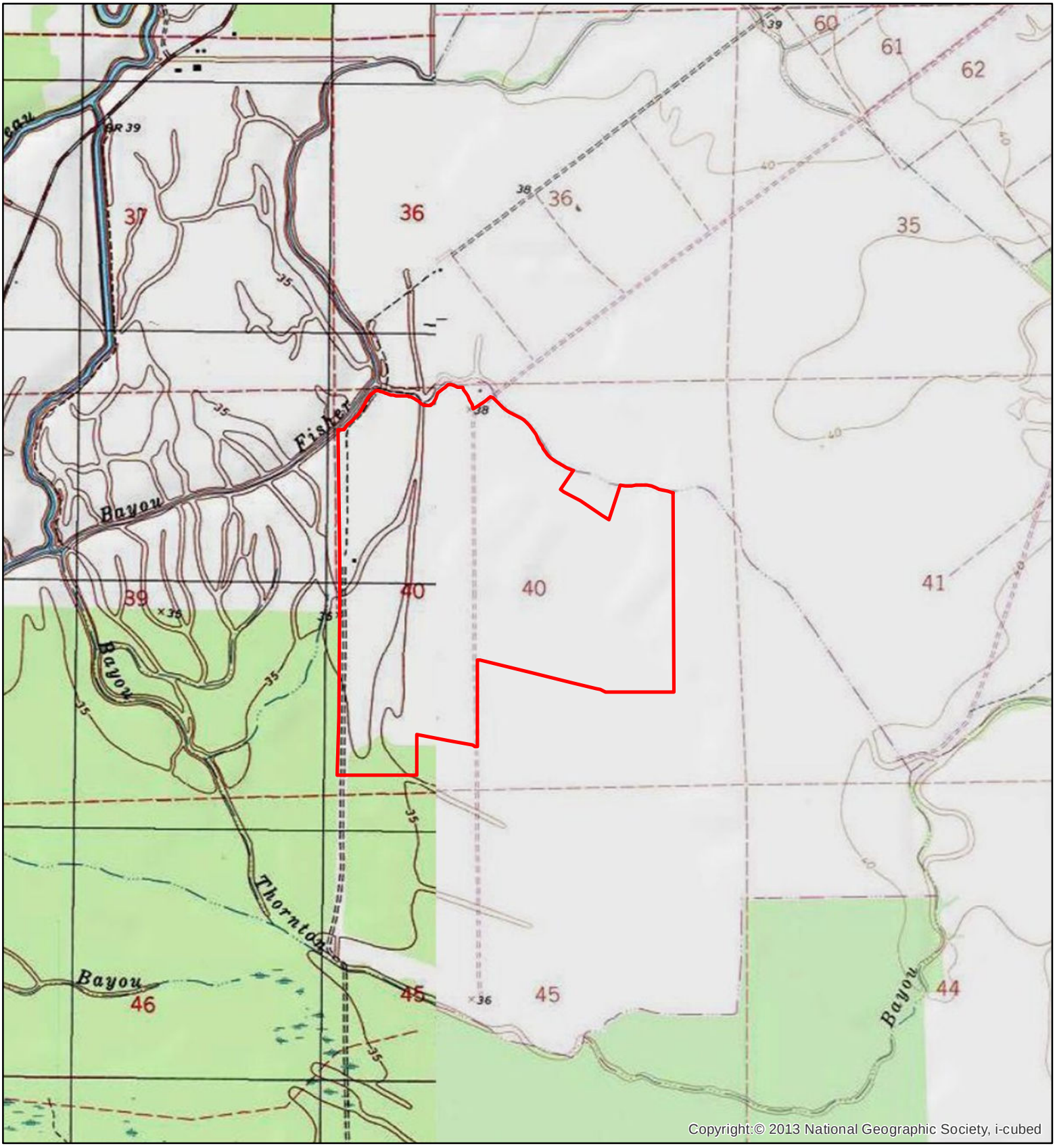
VICINITY MAP

Pointe Coupee Parish, Louisiana

Created : LJW/ArcView10	
Approved : DEB	
Date : 07/07/2014	
Map : F01_Vicinity_5mi.mxd	

DELTA LAND SERVICES

FIGURE 1



Legend

Bayou Fisher Mitigation Bank Amendment One (368.5 Acres)

2,000 1,000 0 2,000

Feet

Bayou Fisher Mitigation Bank Amendment One

USGS 7.5-Minute Quadrangle

Pointe Coupee Parish, Louisiana

Created : LJW/ArcView10	
Approved : ---	
Date : 07/09/2014	
Map : F02_USGS Quad.mxd	

DELTA LAND SERVICES

FIGURE 2

ATTACHMENT C

MITIGATION WORK PLAN

Contents

I. Bank Property Location

The center point of the property is located at latitude 91.748071° North and longitude 30.907564° in Pointe Coupee Parish, Louisiana (Figure 1). The property is located in the Atchafalaya Subbasin as identified by the U.S. Geological Survey (USGS) Hydrologic Unit Code (HUC) 08080101 (Figure 2).

Driving directions to the site are as follows:

> From U.S. Hwy 190 (Airline Highway), take the LA Hwy. 1 exit north towards New Roads. Continue north for approximately 12.5 miles then turn left to remain on LA Hwy. 1 (Hospital Road). Turn left at the end of Hospital Road onto LA Hwy. 1 north and continue for approximately 23.5 miles. Turn left onto and agricultural road which is located approximately 150 feet before the location of where East St. Mary Street intersect LA Hwy 1. Proceed approximately 1.33 miles into the site.

II. Objective

A. Aquatic Resource Type and Functions to be Restored/Enhanced/Preserved

This Bank will re-establish 243.7 acres of bottomland hardwood forest (BLH) and 120.1 acres of baldcypress swamp (Swamp).

As defined by *The Natural Communities of Louisiana* by the Louisiana Department of Wildlife and Fisheries and the Louisiana Natural Heritage program (LNHP), BLH forests are forested, alluvial wetlands occupying broad floodplain areas that flank large river systems (LNHP 2009). BLH forests may be called fluctuating water level ecosystems characterized and maintained by a natural hydrologic regime of alternating wet and dry periods. These forests support distinct assemblages of plants and animals associated with particular landforms, soils, and hydrologic regimes. They are important natural communities for maintenance of water quality, providing a very productive habitat for a variety of fish and wildlife, and are important in regulation of flooding and stream recharge. Baldcypress Swamps are forested, alluvial swamps growing on intermittently exposed soils. The soils are inundated or saturated by surface water or groundwater on a nearly permanent basis throughout the growing season except during periods of extreme drought. Bayous commonly intersect these wetlands. There is a low floristic diversity. Baldcypress (*Taxodium distichum*) is the dominant overstory species[1]. Many aquatic food webs depend on the input of allochthonous material in the form of leaf litter or other organic debris that the wetland forest provides. Net primary productivity of swamp forests seems to be increased by periodic flooding or increased water flow and decreased by slow water movement or stagnation.

[1] The above-referenced and all subsequent scientific plant nomenclature are derived from NRCS (2013)[1]

B. Watershed Contributions

1. Watershed Need

The Bayou Fisher Mitigation Bank Amendment One (BFMB1) site is located within the 29,555-square mile Mississippi Delta Cotton and Feed Grains Region Land Resource Region (LRR O) of the 38,865-square mile Southern Mississippi River Alluvium Major Land Resource Area (MLRA 131A), the Mississippi Alluvial Plain Level III Ecoregion, and the Southern Holocene Meander Belts Level IV Ecoregion (Natural Resources Conservation Service [NRCS] 2006, Omernik 1987, Environmental Protection Area [EPA] 2003). The site is also located within the 838,000-acre Atchafalaya Basin. The Atchafalaya Basin is the largest river swamp in the United States with significant amounts of forested wetlands and is over 100 miles in length from the Old River Control Structure northeast of Simmesport, Louisiana, south to the Atchafalaya River delta near Morgan City, Louisiana. Six threatened or endangered bird species and 29 rookeries are known within the Atchafalaya Basin in addition to over 40 species of reptiles and 20 species of amphibians (Atchafalaya Basin Program [ABP] 2012).

The Atchafalaya watershed has historically been utilized for energy production and transfer as evidenced by the numerous utility corridors which traverse it. The Atchafalaya watershed has numerous sites associated with current and historic oil and gas exploration and production. It is highly likely that future utilities will traverse this watershed as energy demands increase. The Atchafalaya watershed, which stretches over 100 miles north and south, lies in the middle of a major east-west energy corridor. The USGS describes over 78% of the watershed's landmass (i.e. non open water) as being wetland with 69% in woody wetlands and 9% in emergent herbaceous wetlands (Multi-Resolution Land Characteristics Consortium [MRLCC 2011]). Given the vast acreage of wetlands within the Atchafalaya watershed, it is anticipated that activities within this watershed will have some type of unavoidable impact and will require mitigation. A mitigation bank located within the Atchafalaya watershed could compensate for unavoidable impacts within the Atchafalaya watershed which is consistent with a watershed approach to compensatory mitigation. According to a review of the Regulatory In-lieu Fee and Bank Information Tracking System (RIBITS) from July 8, 2014, the Bayou Fisher Mitigation Bank is the only approved mitigation bank located within the Atchafalaya watershed (HUC 08080101) which lists this watershed as a primary service area.

2. Watershed Benefits

The approval and establishment of the BFMB1 would provide mitigation opportunity for unavoidable impacts within the watershed as encouraged by 33 CFR § 332.3 (c)[2].

The BFMB1 is compatible with several designated ecological, watershed and cultural resource plans and programs. The BFMB is located within the 838,000-acre Atchafalaya Trace State Heritage Area as designated by the Louisiana Legislature (La. R.S. 25:1222-1225). The

[2] Federal Register Vol. 73, No. 70 titled *Compensatory Mitigation Losses of Aquatic Resources* promulgated as a Final Rule by the Department of the Army, Corps of Engineers on April 10, 2008.

region was designated as a National Heritage Area by the National Park Service (NPS) in 2006 due to its concentration of significant natural, scenic, cultural, historic and recreational resources (Atchafalaya National Heritage Area 2012). The State Master Plan for the ABP was developed in 1998 and was approved by the Louisiana Legislature in 1999. The restoration of the BFMB1 is consistent with the mission statement of the State Master Plan which calls for the restoration and conservation of natural habitats within the Atchafalaya Basin. Vegetative plantings, invasive species control, protection through conservation servitudes, and monitoring to ensure achievement of the restoration goals are recognized techniques for habitat restoration (Atchafalaya Basin Advisory Committee 1998; ABP 2012). The entire Atchafalaya watershed is designated as a Gulf Ecological Management Site (GEMS)[3]. Although the BFMB is within a portion of the Atchafalaya HUC that is not in the Louisiana Coastal Zone Boundary or the Louisiana Coastal Wetland Conservation Plan Area, the Louisiana Department of Natural Resources (LDNR) Office of Coastal Management (OCM) included the entire Atchafalaya HUC in the Intergovernmental Coordination (IGC) zone as it is subject to a moderate level of coastal processes and influence. In addition to the IGC designation, the OCM designated the entire HUC as a Watershed Planning Area (WPA) given its importance to water quality, ecosystem protection and flood control as it affects the coastal zone (LDNR OCM 2010). The Coastal Wetland Forest Science Working Group (2005) identified the forested wetlands within the entire Atchafalaya HUC as coastal wetland forests within the South Delta Coastal Area Region.

III. Site Selection

The BFMB1 is ecological suitable for providing the desired resource functions described in Section II per the requirements of 33 CFR § 332.3 (c). Soils, hydrologic conditions and elevations are suitable to provide for the restoration of bottomland hardwood and swamp wetland habitat as described in Section II.A. This project will provide additional wetland and ecological functions not currently realized under the existing conditions and land use (e.g. flood storage, reduced run-off, Nearctic-Neotropical bird habitat, threatened and endangered species habitat and habitat for other aquatic fauna). Localized and downstream water quality will improve by retiring the land from intensive agricultural use (i.e., conventional tillage crop production) and increasing surface-water retention time. The surrounding land use and cover within one mile of the BFMB1 perimeter is cultivated cropland/pasture (60%), wooded wetlands (27%), BFMB conservation servitude (12.4%), scrub-shrub (<1%), open water (<1%) and development (<1%). These land uses are compatible with the intended habitat to be restored at the BFMB1.

Wildlife habitat will improve for resident biota and Nearctic-Neotropical migrating bird species (e.g., staging, resting, feeding, escape cover, etc.) through afforestation with native wetland

[3] Gulf Ecological Management Sites are geographical areas that have special ecological significance to the production of fish, wildlife, and other natural resources or represent unique habitats. In south Louisiana, GEMS are beaches, salt domes, wildlife management areas, swamps, cheniers, lakes, bays, and other natural habitat areas.

tree and shrub species[4]. The afforestation of this site will provide habitat deemed important to the recovery of the Louisiana black bear (*Ursus americanus luteolus*), a federally-designated threatened species, by developing a larger forested corridor between two existing forested tracts currently designated as critical habitat for the species[5] . Corridor development is a stated goal of species recovery (US Fish and Wildlife Service [USFWS] 2009).

IV. Site Protection Instrument

A conservation servitude will be utilized as the site protection instrument as described in Section X of this MBI.

V. Baseline Information

This section contains both the historical and current ecological and physical information about the Bank Site.

A. Land Use

1. Historical Land Use

The BFMB1 is located within the approximately 25 million-acre Lower Mississippi Alluvial Valley (LMAV). Prior to European settlement and colonization, the LMAV consisted of mostly contiguous bottomland hardwoods and swamps with some alterations due to activities of Native Americans (Gardiner and Oliver 2005). Significant deforestation began after colonization due to the need to convert these lands to agricultural uses and satisfy a growing demand for timber. The rate of deforestation increased in the 20th Century due to major flood control projects particularly with major levee construction following the passage of the 1928 Flood Control Act. Soybean (Glycine max) demand following World War II increased the need for agricultural property within the LMAV (Oswalt 2013). Advancements in land clearing technology and inflation in the price of agricultural commodities during the 1960s and 1970s resulted in an acceleration of the deforestation (Lower Mississippi River Joint Venture [LMRJV] 2007). By the mid-1980s, only 6.6 million acres of the LMAV remained forested (Oswalt 2013). Approximately 20% of the original forested acreage remains with much of it in fragmented blocks averaging a total 158 acres in size (Twedt et al. 1999). A review of historical aerial photography reveals the site and the surrounding area was 100% forested as late as 1953. Clearing had begun in the area for agricultural purposes between 1953 and 1966 with the entire BFMB cleared and in agricultural production between 1972 and 1983 (Figures 3 through 10).

[4] Afforestation defined by SAF (2012) as *the establishment of a forest or stand in an area where the preceding vegetation or land use was not forest.*

[5] Federal Register Vol. 74, No. 45 titled *Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat of the Louisiana Black Bear (Ursus americanus luteolus)* promulgated as a Final Rule by the US Fish and Wildlife Service on March 10, 2009

2. Current Land Use

The BFMB1 is currently in crop production with rice (*Oryza sativa*) and soybeans being the predominate crop produced over the last several years. In addition to crop production, the site is also utilized for crawfish production.

B. Soils

The soils mapped within the project area are Sharkey clay (Sf) per the Soil Survey Geographic (SSURGO) database (NRCS 2013[2]). The Sf map unit is listed as a predominately hydric soil series by the NRCS with approximately 90% of the map unit being hydric (2013[2]) (Figure 11).

C. Hydrology

1. Historical Hydrology and Drainage Patterns

The primary sources of surface water on the BFMB1 were historically overbank flooding from the Atchafalaya and Mississippi River systems, precipitation and high water tables. The historical drainage pattern was for surface water to flow into an unnamed tributary of Bayou Fisher and then into Bayou Fisher. The water would eventually flow into the Atchafalaya River (Figure 12).

2. Existing Hydrology and Drainage Patterns

Current project hydrology is naturally influenced primarily by localized rainfall and high water tables. Anthropogenic influences involve the pumping of ground water for agricultural purposes (i.e., irrigation for rice/crawfish production). Most upstream, offsite drainage which may flow onto the BFMB1 is intercepted by the unnamed tributary to Bayou Thornton which traverses the BFMB1. This tributary is a natural feature and most non-riverine flows (i.e. precipital sheet flow) would have originated on the natural ridge south of this tributary and flowed south. There is the potential that some overbank flooding may enter the BFMB1 from upstream flash flood events which may top the tributaries banks. (Figure 13).

Natural on-site surface hydrology flow is altered by agricultural improvements designed for the equalized retention of water for rice and crawfish production (i.e., levees) and to drain/discharge surface waters from the site (i.e., ditching traversing the site and discharge pipes in the perimeter road). One groundwater irrigation well is located within the BFMB1. The overall drainage flow is from the north to the south. Artificial drains convey water from the portion of the property south of the unnamed tributary into a slough located within the forested area south of the Owner's property. These conveyances ultimately flow into the Bays canal and into the Morganza Floodway via Bayou Johnson. From here water flows into the lower Atchafalaya Basin Floodway

which is designated as being in the Louisiana Coastal Zone boundary and into the Gulf of Mexico south of Morgan City, Louisiana.

D. Vegetation

1. Historical Plant Community

A review of historical aerial photography reveals the site and the surrounding area was 100% forested as late as 1953. The species composition was likely typical to that of the adjacent forested area. This area is comprised of BLH at elevations generally above 35 feet NAVD and Swamp in areas below 35 feet NAVD.

2. Existing Plant Community

The BFMB1 is currently in crop production with rice and soybeans being the predominate crop produced over the last several years. In addition to crop production, the site is also utilized for crawfish production (Figure 14).

VI. Description of Work

This Bank will provide 243.7 acres of BLH and 120.1 acres of Swamp to compensate for unavoidable wetland impacts for the Atchafalaya River Basin area (Figure 15, Table 1). In order to accomplish this task, the Sponsor shall complete the following soils/hydrologic and habitat work.

A. Soils/Hydrologic Work Plan

To restore wetland hydrology on the BFMB1, 29,769 linear feet of interior roads and levees and approximately 4,549 linear feet of perimeter road will be degraded to natural grade (Figures 16-24). The Owner will cease the use of the one groundwater irrigation well located within BFMB1. The perimeter access road and the access along the unnamed tributary will be maintained with an herbaceous cover and will not be improved. The road will be maintained by mowing and ruts may occasionally be smoothed out with the use of a box blade or similar implement to maintain a flat surface. In total, approximately 105,317 cubic yards of earthen material will be removed from interior levees/roads and exterior roads and deposited in adjacent borrow ditches. Approximately 5,104 cubic yards of this material will be discharged into 1,761 linear feet of drain currently determined to be “other waters of the US”. No areas currently determined to be wetlands will be impacted.

The BFMB1 will depend primarily on precipitation which may be supplemented by potential high flow events from the north forested tract and within the unnamed tributary. As such, long-term hydrology maintenance will not depend on the utilization of water captured from irrigation wells; therefore, sufficient water rights are ensured for such purposes.

B. Vegetation

The BFMB1 will re-establish 211.8 acres of Type 2 and 3 BLH forest; 31.9 acres of Type 1 and 2 BLH forest; and 120.1 acres of Swamp by planting selected tree species as described by the Louisiana Natural Heritage (LNH 2009), Lester et al. (2005), and Barrow et al. (2005) (Figure 15 and Table 2). Areas above 36 feet NAVD will be restored to a combination of a sugarberry-American elm-green ash (Type 2) and a sweetgum-water oak (Type 3) BLH. Areas between 35 and 36 feet NAVD will be restored as a mosaic of an overcup-water hickory (Type 1) BLH and Type 2 BLH. Areas below 35 feet NAVD will be restored to Swamp. Site preparation for planting will be accomplished by applying herbicide as needed, cultivating the soil surface, and sub-soiling (ripping) at equidistant intervals to a depth of approximately 18 inches (Allen et al. 2001). Site preparation will include the removal and control of any invasive species through herbicide treatments, mechanized clearing, cutting, shredding, or a combination thereof.

Afforestation activities will include the planting of native BLH and Swamp species during the first planting season (December 15, 2014 through March 15, 2015) following site preparation. BLH species will be planted on approximate 9-foot centers for a rate of 538 stems per acre (spa) while Swamp species will be planted at a spacing of no more than 12 feet for a minimum rate of 302 spa (Table 2). The species selected will be site-appropriate in terms of habitat design, soil-moisture regime, and species richness. Ten or more species may be represented in the planting assemblage to insure adequate species richness (Twedt and Best 2004). The distribution of stems will create a mosaic of hard and soft mast species that will provide seasonally available forages for a wide range of indigenous wildlife including the Louisiana black bear (Barrow et al. 2005). The availability of soft mast species is important during the summer and hard mast is critical in the fall and early winter for the build-up of fat reserves in black bears preparing for denning (Black Bear Conservation Committee [BBCC] 2005).

Hard mast species should account for at least 50 to 70% of all BLH plantings with the remaining percentage accounted for by soft mast tree species. The exact species and quantities for planting will be determined by the availability of such species from commercial nurseries providing localized ecotype seedlings. Seedlings will be mixed upon planting so that areas are not comprised of a single species (Twedt and Best 2004).

VII. Maintenance Plan

The Sponsor will use all prudent efforts, physical, chemical, or mechanical, to eliminate existing undesirable/exotic vegetation present such as Chinese tallow (*Triadica sebifera*) on the site during site preparation activities. The Sponsor will continue to monitor the site through annual inspections to document

1. the effectiveness of control efforts and

2. record the extent and degree of invasive species present

3. record the extent and degree of any herbivory damage

4. record the condition and functionality of any hydrological structures

Following such monitoring, invasive species, weed and herbivore control will be implemented as necessary and hydrological structures will be replaced if determined necessary. The Sponsor will maintain boundary lines and maintain access trails by mowing.

VIII. Performance Standards

In order for the Bank to be considered acceptable for mitigating wetland impacts associated with DA permits, the Property will be restored in accordance with the Mitigation Work Plan (MWP) such that it meets wetland criteria as described in the 1987 Corps of Engineers Wetland Delineation Manual (the 1987 Manual) as well as the November 2010 Regional Supplement for the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region Version 2.0 (USACE 1987, 2010). Performance standards (success criteria) used to measure the success of the Bank are provided below.

A. Initial Success Criteria

1. *Hydrology*: Ground surface elevations must be conducive to establishment and support of hydrophytic vegetation, and re-establishment and maintenance of hydric soil characteristics. To that end, all alterations of the natural topography (ditching, spoil banks, land leveling, bedding, fire breaks, etc) that have affected the duration and extent of surface water have been removed or otherwise rendered ineffective in accordance with this MWP.

2. *Vegetation*: A minimum of 250 planted seedling spa must survive through the end of the second spring following the planting (i.e., Year 1). Those surviving seedlings must be representative both in species composition and percentage identified in this MWP. This criterion will apply to initial plantings, as well as, any subsequent replanting that may be needed to meet this requirement.

B. Interim Success Criteria

1. *Hydrology*: By Year 3 (two years following attainment of the one-year survivorship criteria) site hydrology will be restored such that the Property meets the wetland criterion as described in the 1987 Manual as well as the November 2010 Regional Supplement to the Corps of Engineers wetland Delineation Manual: Atlantic and Gulf

Coastal Plain Region Version 2.0 (USACE 1987, 2010). Data demonstrating that wetland hydrology has been re-established is to be collected by the Sponsor and submitted to CEMVN in the monitoring report for the interim success criteria

2. Vegetation and Vegetative Plantings: a. For a given planting, a minimum of 250 seedlings/sapling spa must be present (with a 70: 30 or 50: 50 hard mast to soft mast ratio in BLH) at the end of the fourth year (i.e. Year 5) following successful attainment of the one-year survivorship criteria. Trees established through natural recruitment may be included in this tally; however, no less that 125 hard mast-producing spa must be present in BLH areas while no less than 125 baldcypress spa must be present in Swamp areas. Surviving hard mast seedlings must be representative of the species composition and percentage identified in this MWP. Exotic/invasive species may not be included in this tally.

b. By Year 5 (four years following successful attainment of the one-year survivorship criteria) the Bank and the perimeter will be virtually free (approximately 5% or less on an acre-by-acre basis) of exotic/invasive vegetative species.

c. Developing plant community must exhibit characteristics and diversity indicative of a viable native forested wetland community commensurate with stand age and site conditions by Year 5. Achievement of wetland vegetation dominance is defined as a vegetation community where more than 50% of all dominant species are facultative (FAC) or wetter using “routine delineation methods” as described in the 1987 Manual as well as the November 2010 Regional Supplement to the Corps of Engineers wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region Version 2.0 (USACE 1987, 2010).

C. Long-Term Success Criteria

1. Forest canopy coverage exceeds 80% of forested land mass as measured by an approved method. Forest canopy species abundance and composition is consistent with the restoration goals identified in the restoration plan and credit assessment methodologies. The long term species composition should fall within the range of 50:50 to 30:70 soft mast to hard mast ratio.

2. When forest canopy coverage exceeds 80%, the Bank will be essentially void of exotic/invasive vegetation (all seed-producing trees removed from Bank and perimeter and less than 3% of the understory on an acre per acre basis). An active treatment program will continue as part of the long-term maintenance program.

3. If thinning to maintain or enhance the ecological value of the Bank is determined necessary by the IRT at this time, the Sponsor/Steward will develop a thinning plan in coordination with the IRT. Thinning operations shall be performed by the Sponsor/Steward per the requirements of the thinning plan.

4. The Sponsor will provide documentation that the "Long-Term Maintenance and Protection" escrow account is fully funded.

IX. Monitoring Requirements

The Sponsor agrees to perform all work necessary to monitor the Bank to demonstrate compliance with the success criteria established in this MWP. The Sponsor will monitor the Bank in the spring of each monitoring year using the guidelines in Section VIII of this MWP.

Surveys of permanent monitoring stations will occur in the following time frame:

1. Immediately following planting of the Bank to establish baseline information.

2. In Year 1, 3, 5 and after achieving interim success criteria, monitoring will occur every 3 years until an average canopy coverage of 80% is established.

3. If thinning is required after successfully achieving the long-term success criteria, the site will be surveyed prior to and following the first thinning operation following plantings.

If monitoring for any given year determines that the Bank is not progressing as expected, monitoring will continue on an annual basis until the Bank successfully meets or exceeds established milestones. After achieving the interim success criteria, monitoring will occur every 3 years until average canopy coverage of 80% is obtained. If thinning is required after successfully achieving the long-term success criteria, the site will be surveyed prior to and following the first thinning operation following plantings.

The survey of the permanent monitoring stations will collect data to evaluate the survival rate of planted vegetation; number, species and growth rates (average heights and diameter). In addition to planted seedlings, surveys will include the number by species of volunteering trees, shrubs and woody vines. Surveys will also collect information regarding colonizing plant species, the wetland plant status (scaled from obligate (OBL) to upland (UPL) of each and the number by species of exotic/noxious specimens.

A. Permanent circular monitoring stations

Immediately following initial planting of the Bank, the Sponsor will randomly establish a permanent circular monitoring station for every 20 acres on the Bank. Each station will have a minimum area of $1/20^{th}$ acre (radius=26 feet). Stations will be identified with a permanent marker (e.g., an 8-foot PVC pipe anchored with a metal T post at plot center) and Global Positioning System (GPS)-derived coordinates will be recorded for each station. A map will be provided to CEMVN (See Reporting Protocols below) that depicts the location of the monitoring stations as well as a coordinating list containing

the coordinates for each station. All individual planted seedlings/saplings falling within each monitoring station will be marked with a numbered tag that uniquely identifies each seedling. A document providing seedling information shall be presented (to CEMVN) for each monitoring station and this document shall not only list the specific tag number for each seedling within the monitoring station, but also the species (by scientific and common name), height, diameter, wetland rating, hard mast or soft mast categorization, and general condition of each stem.

To establish baseline information this data will be obtained immediately following the initial planting of the Bank site or phase of the Bank.

B. Transects

The Sponsor shall establish transects along planted rows to be used to determine overall survivorship of planted seedlings. Transects shall make up approximately 3% of the total number of rows and arranged so that a representative sample of the entire track is obtained. The beginning and ending points of each transect shall be marked with a permanent marker (e.g., an 8-foot PVC pipe anchored with a metal T post) and GPS coordinates shall be recorded for these points.

To establish baseline information transects will be surveyed to determine the number by species of planted seedlings within 60 days of planting. Transects will be surveyed until successful attainment of the interim success criteria. Initial and interim transect surveys shall record the species present, the number of living seedlings for each species, the wetland indicator status of each species, the mast type of each species and describe the general condition of the seedlings. Any failed areas of plantings should be noted along with an explanation for the failure.

C. Soil Profile

The Sponsor will collect data on the hydrologic conditions of the Bank as necessary. Sufficient data shall be provided to accurately demonstrate variations in soil conditions. Information to demonstrate hydric properties within the soil shall be provided as a description of the upper 12 inches of the soil profile. Such data will be presented as points with GPS coordinates for each point, a hydric indication for each point, and an explanation to support the information for each point. This information shall also be provided on a referenced map included as an attachment.

The Sponsor will be required to submit a Corps issued JD (at year 3) to show that the Property meets the wetland criterion as described in the 1987 Manual as well as the Regional Supplement of the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region Version 2.0 (USACE 1987, 2010).

D. Floristic Survey

To document the attainment of the long-term success criteria the Sponsor will complete a comprehensive floristic survey for the Bank as part of the monitoring requirements.

A floristic survey should be comprehensive over the entire site, and should be conducted using systematic field techniques. This survey should provide a list of plants and communities existing on the site. If adverse conditions such as disease, drought, predation, or herbivory, etc. exist and have impacted the plantings then this information and these conditions need to be discussed in the report.

E. Photographs

Digital images shall be taken from ground level at each monitoring station and from elevated positions throughout the Bank to document overall conditions. These ground level images should provide a North, South, East and West image for each station.

F. Qualitative Analysis

The Sponsor shall evaluate the entire extent of the Bank (or phase of the Bank that this report represents) and provided observations concerning overall seeding survivorship, colonization of the Bank by volunteer plant species, wildlife utilization and any other information that is pertinent to achievement of initial success criteria.

G. Hydrologic Conditions

A description of the condition of any applicable hydrology altering features (culverts, ditches, plugs, etc.) and a general discussion of hydrologic conditions at monitoring stations shall be provided.

H. Ledgers

The Sponsor will utilize the Regulatory In-Lieu Fee and Bank Information Tracking System (RIBITS) as a ledger to show all transactions. The Sponsor will input the following information: transaction date, permittee name, credits/acres sold and DA permit number. No other reporting measures are required.

X. Monitoring Reports

Independent of the As-built report the Sponsor will submit monitoring reports documenting monitoring efforts at the Bank to the CEMVN by July 31st of the year monitoring occurs. Besides monitoring results for that monitoring year, reports will include a financial assurance report documenting withdrawals and deposits. The monitoring reports will follow the guidelines listed below:

The monitoring report will include data sufficient for comparison to the performance standards found in Section VIII of this Work Plan. The Sponsor shall also include, in these reports, a discussion of all activities which took place at the Bank.

A. As-Built Report

An as-built report will be submitted to CEMVN within 60 days following completion of all work required to restore or enhance special aquatic sites. The as-built report will describe in detail the work performed and provide a list of species planted, the number of each species, the hard or soft mast categorization, and the wetland rating. No deviation from the MWP may occur without prior approval from the IRT. The as-built report will include a discussion of the coordination with IRT members, a description of and reasons for any approved deviation. The as-built report shall provide:

a. A survey showing finished grades and plantings with written documentation, plan view and cross sectional drawings of all construction and establishment work implemented on the bank.

b. Survey data collected from the permanent monitoring stations and the transects. This survey data should include the number and species of the seedlings planted, timing of all work events, and maps showing the location (including latitude/longitude) of all monitoring stations as described in this MWP.

c. Detailed descriptions of site preparation, planting procedures, etc.

B. Initial Success Criteria Report

The Sponsor shall monitor the Bank in the spring (March 15-May 31) of its second growing season following initial planting of the Bank. The Sponsor will provide an Initial Success Criteria Report by July 31st of that year.

The Sponsor shall provide details in accordance with this MWP, on any maintenance and/or management work conducted on the Bank after submission of the As-Built Report. The Sponsor shall provide a brief description of any anticipated maintenance and/or management work to be conducted prior to attainment of interim success criteria.

1. Vegetation

a. Permanent Circular Plot Data

The Sponsor shall provide plot data in tabular form on all planted seedlings falling within each permanent circular monitoring plot as described and as established in accordance with Section IX of this MWP. A description of the general condition of the seedlings, including the number and species of surviving seedlings in each monitoring

station, the tag number and a discussion of likely causes of mortality for the non-survivors shall be provided. A number (by species) of exotic/invasive species, including, a description of the generalized degree of distribution and whether they are seed bearing trees or seedlings will also be provided.

b. Transect Data

The Sponsor shall provide data in tabular form for the total number of planted seedlings as described in Section IX.B of this MWP. A description of the general condition of the seedlings and the discussion of likely causes of mortality, if appropriate shall also be provided. Exotic/invasive species should be noted along with information on the generalized amount of each and whether they are seed bearing trees or seedlings.

2. Hydrologic Data

The Sponsor shall provide a description of the condition of any applicable hydrology altering features (culverts, ditches, plugs, etc.) and a general discussion of hydrologic conditions at monitoring stations.

3. Photographs

The Sponsor must submit digital photographs in accordance with Section IX.E of this MWP.

4. Qualitative Analysis

The Sponsor must provide a qualitative analysis of the site as described in Section IX.F of this MWP.

5. Funding

The Sponsor shall provide CEMVN with copies of the most recent financial account statements for both the financial assurance accounts and the Long-term Maintenance and Protection Fund. If any escrowed funds were used, the Sponsor will include a narrative describing that use, the justification for that use and supporting documentation (e.g. receipts). The Sponsor shall also provide any justification for any requested release from financial assurance accounts.

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C. Interim Success Criteria Report

The Sponsor shall monitor the Bank in the spring (March 15-May 31) of its third growing season following attainment of the one-year survivorship criteria for the Bank. The Sponsor will provide an Interim Success Criteria Report by July 31st of that year.

1. Vegetation

For a given planting, a minimum of 250 seedlings/sapling spa must be present at the end of the fourth year (i.e. Year 5) following successful attainment of the one-year survivorship criteria. Trees established through natural recruitment may be included in this tally; however, no less than 125 hard mast-producing spa must be present in BLH areas while no less than 125 baldcypress spa must be present in Swamp areas. Surviving hard mast seedlings must be representative of the species composition and percentage identified in this MWP. Exotic/invasive species may not be included in this tally.

a. Permanent Circular Plot Data

The Sponsor shall provide plot data in tabular form on all planted seedlings falling within each permanent circular monitoring plot as described and as established in accordance with Section IX of this MWP. A description of the general condition of the seedlings, including the number and species of surviving seedlings in each monitoring station, the tag number and a discussion of likely causes of mortality for the non-survivors shall be provided. A number (by species) of exotic/invasive species, including, a description of the generalized degree of distribution and whether they are seed bearing trees or seedlings will also be provided.

b. Transect Data

The Sponsor shall provide data in tabular form for the total number of planted seedlings as described in Section IX.B of this MWP. A description of the general condition of the seedlings and the discussion of likely causes of mortality, if appropriate shall also be provided. Exotic/invasive species should be noted along with information on the generalized amount of each and whether they are seed bearing trees or seedlings.

2. Hydrologic Data

By Year 3, two years following attainment of the one-year survivorship criteria, the Sponsor must provide a corps issued wetland determination to prove that site hydrology has been restored such that the Property meets the wetland criterion as described in the 1987 Manual as well as the November 2010 Regional Supplement to the Corps of Engineers wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region Version 2 (USACE 1987, 2010). The Sponsor shall submit a wetland delineation report and a request for a jurisdictional determination to CEMVN.

3. Photographs

The Sponsor must submit digital photographs in accordance with Section IX.E. of this MWP.

4. Qualitative Analysis

The Sponsor must provide a qualitative analysis of the site as described in Section IX.F of this MWP. The Sponsor shall provide details on any maintenance and/or management work conduction on the Bank after submission of the Initial Success Criteria Report. The Sponsor shall provide a brief description of any anticipated maintenance/management work to be conducted prior to attainment of long-term success criteria. Note: By year 5, four years following successful attainment of the one-year survivorship criteria, the developing community must exhibit characteristics and diversity indicative of a viable native forested wetland community commensurate with stand age and site conditions; the Bank and the perimeter will be virtually free (approximately 5% or less on an acre-by-acre basis) of exotic/invasive vegetation.

5. Funding

The Sponsor shall provide CEMVN with copies of the most recent financial account statements for both the financial assurance accounts and the Long-term Maintenance and Protection Fund. If any escrowed funds were used, the Sponsor will include a narrative describing that use, the justification for that use and supporting documentation (e.g. receipts). The Sponsor shall also provide any justification for any requested release from financial assurance accounts.

D. Long Term Success Criteria Report

1. Vegetation

For a given planting, a minimum of 250 spa must be present at the end of the fourth year (i.e. Year 5) following successful attainment of the one-year survivorship criteria. Trees established through natural recruitment may be included in this tally; however, no less than 125 hard mast-producing spa must be present in BLH areas while no less than 125 baldcypress spa must be present in Swamp areas. Surviving hard mast seedlings must be representative of the species composition and percentage identified in this MWP. Exotic/invasive species may not be included in this tally.

a. Permanent Circular Plot Data

The Sponsor shall provide plot data in tabular form on all planted seedlings falling within each permanent circular monitoring plot as described and as established in accordance with Section IX of this MWP. A description of the general condition of the seedlings, including the number and species of surviving seedlings in each monitoring station, the tag number and a discussion of likely causes of mortality for the non-survivors shall be provided. A number (by species) of exotic/invasive species which includes a description of the generalized degree of distribution and their seed-bearing status will be provided.

b. Transect Data

The Sponsor shall provide data in tabular form for the total number of planted seedlings as described in Section IX.B of this MWP. A description of the general condition of the seedlings and the discussion of likely causes of mortality, if appropriate shall also be provided. Exotic/invasive species should be noted along with information on the generalized amount of each and their seed-bearing status.

2. Hydrologic Data

By Year 3, two years following attainment of the one-year survivorship criteria, the Sponsor must provide a corps issued wetland determination to prove that site hydrology has been restored such that the Property meets the wetland criterion as described in the 1987 Manual as well as the November 2010 Regional Supplement to the Corps of Engineers wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region Version 2 (USACE 1987, 2010). The Sponsor shall submit a wetland delineation report and a request for a jurisdictional determination to CEMVN.

3. Photographs

The Sponsor must submit digital photographs in accordance with Section IX.E. of this MWP.

4. Qualitative Analysis

The Sponsor must provide a qualitative analysis of the site as described in Section IX.F of this MWP. The Sponsor shall provide details on any maintenance/management work conduction on the Bank after submission of the Initial Success Criteria Report. The Sponsor shall provide a brief description of any anticipated maintenance and/or management work to be conducted prior to attainment of long-term success criteria. By year 5, four years following successful attainment of the one-year survivorship criteria, the developing community must exhibit characteristics and diversity indicative of a viable native forested wetland community commensurate with stand age and site conditions; the Bank and the perimeter will be virtually free (approximately 3% or less on an acre-by-acre basis) of exotic/invasive vegetation.

5. Funding

The Sponsor shall provide CEMVN with copies of the most recent financial account statements for both the financial assurance accounts and the Long-term Maintenance and Protection Fund. If any escrowed funds were used, the Sponsor will include a narrative describing that use, the justification for that use and supporting documentation (e.g. receipts). The Sponsor shall also provide any justification for any requested release from financial assurance accounts.

XI. Bank Credits

A. Credit Determination

Credits in the Bank were determined using the Modified Charleston Method. Results are included as Attachment MWP-B. In addition CEMVN may also use best professional judgment in the determination of such credits.

B. Schedule of Credit Availability

Upon submittal of all appropriate documentation by the Sponsor, and subsequent approval by CEMVN in consultation with the IRT, CEMVN will release credits for use by the Sponsor according to the following schedule:

1. Thirty percent (30%) of total anticipated project credits will be available for debiting upon confirmation that all items in Section XI. F (1-7) of the MBI has been completed.

2. An additional twenty percent (20%) of total anticipated credits will be available for debiting upon providing documentation that the vegetative plantings have been conducted and completion of the work necessary to restore site topography and wetland hydrology of the Bank as outlined in Section VI of this MWP.

3. An additional twenty percent (20%) of the total anticipated credits would be released upon successfully completing the initial success criteria (Section VIII. A).

4. An additional twenty percent (20%) of the total anticipated credits would be released upon successfully completing the interim success criteria (Section VIII B).

5. The remaining ten percent (10%) of the total anticipated credits would be released once the long-term success criteria (Section VIII. C) are met.

XII. Adaptive management plan

An adaptive management strategy, contingency, and remedial responsibilities shall be in place, and will be implemented in the event monitoring reveals that certain success criteria have not been met. In the event of a deficiency, the Sponsor shall provide a notice to the CEMVN. This notice shall include an explanation for the deficiency, and will outline specific practices and measures that will guide decisions for revising compensatory mitigation plans if needed.

A. Seedling Survivorship

1. If performance standards are not met as specified in Section VIII of this MWP the Sponsor shall take appropriate actions, as recommended by the CEMVN, to address the causes of mortality and shall replace seedlings of the appropriate species during the

following planting season. Replanting, monitoring and reporting, as previously described, shall occur as needed to achieve and document the required survival rate.

2. If the performance standard is not met after three unsuccessful attempts, the CEMVN will convene a meeting with the Sponsor to decide if replanting should continue. Should the CEMVN determine that achieving the required survival rate would not be likely; the Sponsor shall be required to provide replacement mitigation for the increment of value that did not accrue within the unsuccessful areas within one year of this decision.

B. Contingencies for Hydrology

If wetland hydrology is not documented by Year 5, the Sponsor shall document in the monitoring report those areas where attention is needed. The CEMVN may require the Sponsor to conduct adaptive management measures in order to obtain adequate hydrology. With approval of the CEMVN, the Sponsor would establish a means of increasing the amount of available water to the site.

XIII. Long Term Protection and Maintenance

To ensure long-term sustainability of the resource, the Sponsor shall burden the property with a perpetual conservation servitude as described in Section X.A of this MBI.

XIV. Funding

Section IX. A of this MBI provides specific details about the funding for the Construction and Establishment (C & E) Activities for the Bank.

A. Construction and Establishment (C&E) Funds

1. Estimate of C&E Funds Required

The amount required for a third-party to construct and manage the Bank as specified in this MWP through the first 15 years is estimated at $475,340.04. The construction cost (Year 0) is estimated at $347,153.64 and the establishment costs over the first 15 years (Years 1-15) are estimated at $128,186.40. Attachment MWP-B is an estimate of work and costs requirements for constructing and establishment of the Bank.

2. C&E Funding Mechanism

To fund this account the Sponsor proposes to establish the Bayou Fisher Mitigation Bank Construction and Establishment Fund by means of an escrow account.

3. C&E *Release Schedule*

The Financial assurances shall be reduced as success criteria are achieved and the probability decreases that those funds would be needed according to the following schedule:

1. Upon verification that all hydrologic modifications, construction, and planting as described in Section VI have been completed to the satisfaction of CEMVN, in consultation with the IRT, CEMVN shall advise the Sponsor and the financial institution that the C & E financial assurance may be reduced to $128,186.40 ($475,340.04-$347,153.64).

2. Upon verification by CEMVN, in consultation with the IRT, that the initial success criteria have been attained for all tracts to the satisfaction of CEMVN, in consultation with the IRT, CEMVN shall advise the Sponsor and the financial institution that the C & E financial that assurance may be reduced to $70,869.14 ($128,186.40-$57,317.25).

3. Upon verification by CEMVN, in consultation with the IRT, that the interim success criteria have been attained for all tracts to the satisfaction of CEMVN, in consultation with the IRT, CEMVN shall advise the Sponsor and the financial institution that the C&E financial assurance may be reduced to $22,526.89 ($70,869.14-$48,342.25).

4. Upon verification by CEMVN, in consultation with the IRT, that the long-term success criteria have been attained for all tracts to the satisfaction of CEMVN, in consultation with the IRT, CEMVN shall notify the Sponsor and the financial institution that the remaining C&E financial assurance may be released to the Sponsor.

B. Long Term Maintenance/Management Funds

1. Long-term Management Needs

Long-term management activities will include, but is not limited to, boundary maintenance approximately every 10 years, annual property tax payment, annual monitoring/inspections.

2. Annual Cost Estimates for Long-Term Needs

The annual cost of long-term management is estimated at $ 2,265.33 from year 16 to year 50. This amounts to an average of $ 3,636.75 when adjusted annually for inflation. Attachment B contains a description of the necessary work and an itemization of costs to perform the work for long term management and protection of the Bank.

3. Long-Term Maintenance and Protection Funding Mechanism

To ensure that sufficient funds are available to provide for the perpetual maintenance and protection of the Bank, the Sponsor is establishing the "Long-Term Maintenance and Protection" escrow account. This account will be administered by a federally-insured depository that is "well capitalized" or "adequately capitalized" as defined in Section 38 of the Federal Deposit Insurance Act. The account will be incrementally funded by deposit a minimum of $ 360.21 into the account per credit /acre sold at the time of credit sale. The deposit value per credit/acre must reflect, at a minimum, the total fund value divided by no more than 70% of anticipated credits. Once the account is fully funded ($91,730.00), no incremental fund per credit sale is required. The account shall be fully funded by the time 70% of the total number of credits are sold or upon successful achievement of the Long-term Success Criteria, whichever occurs first. If the Long-term Success Criteria are met prior to fully funding the escrow account then the Sponsor must deposit into the escrow account the difference between the amount determined to be full funding and the account balance difference between the amount determined to be full funding and the account balance. Documentation that the account is fully funded is a pre-requisite for release of the remaining credits following attainment of the Lon-term Success Criteria as identified in this MWP. Accrued interest in excess of the value of the fully funded account may only be used for the administration, operation, maintenance and/or other purposed that directly benefit the Bank. The principal shall not be used and shall remain as part of the Bank's assets to ensure that sufficient funds are available should perpetual maintenance responsibilities be assumed by a third party. The Sponsor or Long-term Steward may withdraw the accumulated interest only with written approval from CEMVN and only to be used to maintain the Bank. The Sponsor shall provide copies of depository account statements to CEMVN upon request and in their monitoring reports.

XV. Citations

Allen, J.A., B.D. Keeland, J.A. Stanturf, A.F. Clewell, and H.E. Kennedy (2001 [rev. 2004]). *A guide to bottomland hardwood restoration*: US Geological Survey, Biological Resources Division Information and Technology Report USGS/BRD/ITR-2000-0011. USDA Forest Service, Southern Forest Research Station, General Technical Report SRS-40, 132 pp.

Atchafalaya Basin Advisory Committee (1998) *Atchafalaya Basin Floodway System, Louisiana Project, State Master Plan*. A report to the People of Louisiana, Governor M.J. "Mike" Foster, Jr. and the Louisiana State Legislature, April 1998 (revised June 1998).

Atchafalaya Basin Program (2012) *Atchafalaya Basin Program Fiscal Year 2014 Annual Plan (Draft).* Louisiana Department of Natural Resources Atchafalaya Basin Program, October 2012.

Atchafalaya National Heritage Area (2012) *The Atchafalaya National Heritage Area* (Website). Available URL: http://www.atchafalaya.org. Accessed July 20, 2012.

Barrow, W.C. Jr., L.A. Johnson Randall, M.S. Woodrey, J. Cox, E. Ruelas, I.C.M. Riley, R.B. Hamilton, and C. Eberly (2005) *Coastal Forests of the Gulf of Mexico: A Description and Some Thoughts on Their Conservation*. USDA Forest Service General Technical Report PSW-GTR-191.

Black Bear Conservation Committee (2005) *Black Bear Management Handbook for Louisiana, Mississippi, Southern Arkansas, and East Texas*. March 2005.

Coastal Wetland Forest Science Working Group (2005) *Conservation, Protection and Utilization of Louisiana's Coastal Wetland Forests*. A final report to the Governor of Louisiana from the Coastal Wetland Forest Science Working Group. April 30, 2005. 102 pp.

Environmental Protection Agency (2003) *Level III ecoregions of the continental United States* (revision of Omernik 1987): Corvallis, Oregon, U.S. Environmental Protection Agency - National Health and Environmental Effects Research Laboratory, Map M-1, various scales.

Gardiner, E.S. and J.M. Oliver (2005) Restoration of bottomland hardwood forest in the Lower Mississippi Alluvial Valley In: *Restoration of boreal and temperate forests in the Lower Mississippi Alluvial Valley*, Stanturf, J.A.; Madsen, P., eds. Boca Raton, FL.

Lester G., S. Sorenson, P. Faulkner, C. Reid, and I. Maxit (2005) *Louisiana Comprehensive Wildlife Strategy (Wildlife Action Plan)*. Louisiana Department of Wildlife and Fisheries.

Louisiana Department of Natural Resources Office of Coastal Management (2010) *Defining Louisiana's Coastal Zone: A Science Based Evaluation of the Louisiana Coastal Zone Inland Boundary*. August 2010.

Louisiana Natural Heritage Program (2009) *The Natural Communities of Louisiana.* Louisiana Department of Wildlife and Fisheries.

Lower Mississippi Valley Joint Venture (2007) *Restoration, Management and Monitoring of Forest Resources in the Mississippi Alluvial Valley: Recommendations for Enhancing Wildlife Habitat, Version 5.2* (FINAL REPORT). Wilson, R., K. Ribbeck, S. King, and D. Twedt. Lower Mississippi Valley Joint Venture Forest Resource Conservation Working Group.

Multi-Resolution Land Characteristics Consortium (2011) *National Land Cover Database* [website]. Accessed June 1, 2012. Available URL http://www.mrlc.gov .

Natural Resources Conservation Service (2006) *Land Resource Regions and Major Land Resource Areas of the United States, the Caribbean, and the Pacific Basin*. United States Department of Agriculture Handbook 296.

Natural Resources Conservation Service (2013)[1] *The PLANTS Database* [website]. U.S. Department of Agriculture, Natural Resources Conservation Service, National Plant Data Center. Accessed September 13, 2013. Available URL: http://plants.usda.gov

Natural Resources Conservation Service (2013)[2] *Web Soil Survey* [website]. U.S. Department of Agriculture, Natural Resources Conservation Service, *Soil Survey Staff*. Accessed September 13, 2013. Available URL: http://websoilsurvey.nrcs.usda.gov/app/

Omernik, J.M. (1987) *Ecoregions of the Conterminous United States (map supplement): Annals of the Association of American Geographers*, v. 77, no. 1, p. 118-125, scale 1:7,500,000.

Oswalt, S.N. (2013) *Forest Resources of the Lower Mississippi Alluvial Valley*. General Technical Report SRS-GTR-177. Asheville, NC: USDA-Forest Service, Southern Research Station. 29 p.

Society of American Foresters (2012) *The Dictionary of Forestry* [website]. Copyright 1988 by the Society of American Foresters. Accessed November 30, 2012. Available URL: http://dictionaryofforestry.org

Twedt, D., D. Pashley, C. Hunter, A. Mueller, C. Brown and B. Ford (1999) *Partners in Flight Bird Conservation Plan for the Mississippi Alluvial Valley*, Version 1.0.

Twedt, D.J. and C. Best (2004) Restoration of floodplain forests for conservation of migratory land birds. *Ecological Restoration* 22 (3): 194-203.

U.S. Army Corps of Engineers (1987) Corps *of Engineers Wetland Delineation Manual*. USACE Waterways Experiment Station Technical Report Y-87-1.

U.S. Army Corps of Engineers (2010) *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (ver 2.0)*. ERDC/EL TR-10-20. U.S. Army Corps of Engineers, Environmental Laboratory, Vicksburg, MS, November 2010.

U.S. Fish and Wildlife Service (2009) Louisiana Black Bear Recovery Action Plan. U.S. Fish and Wildlife Service Southeast Region- Lafayette, Louisiana Ecological Services Field Office, August 14, 2009.

ATTACHMENT MWP A

TABLES AND FIGURES

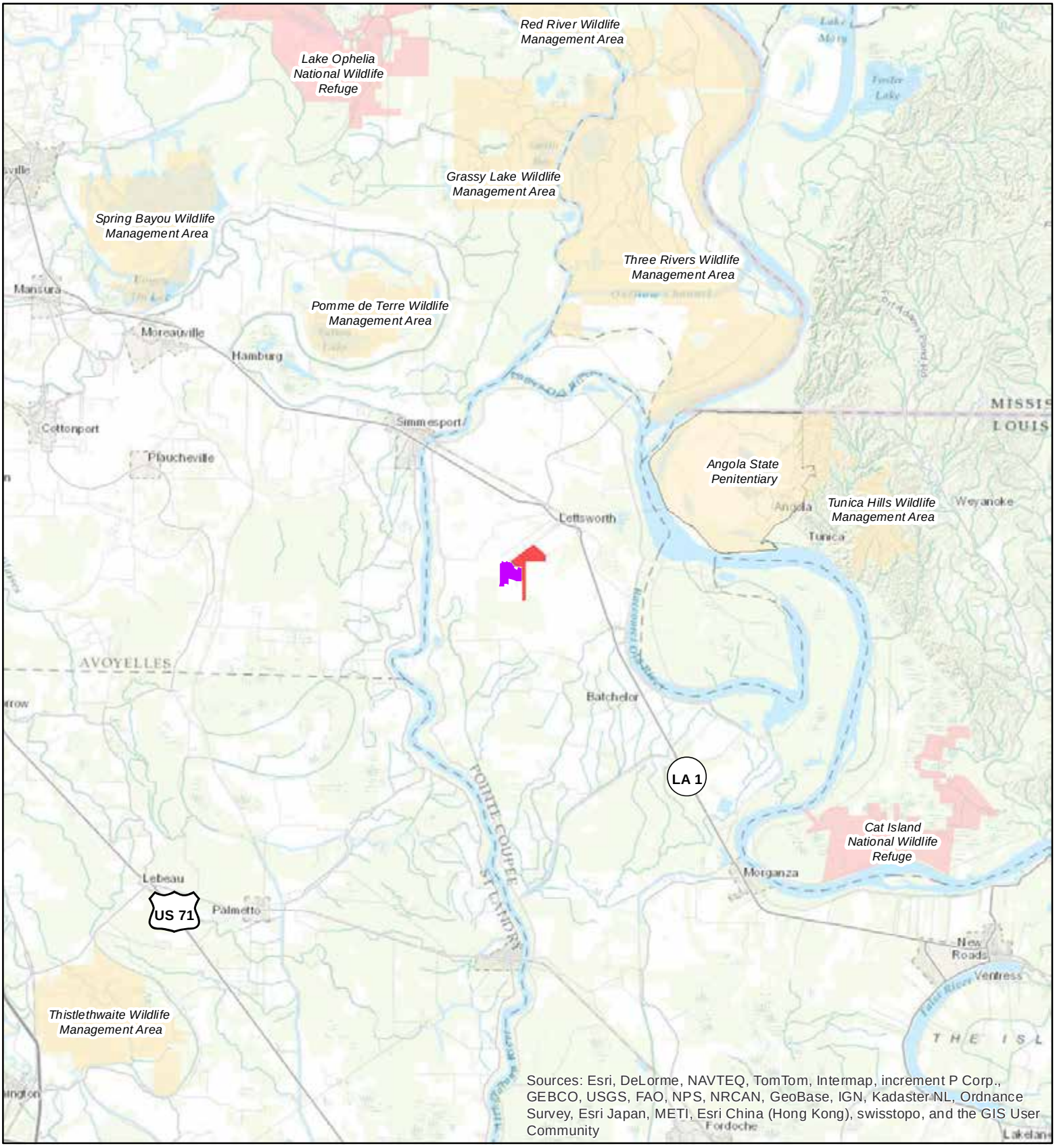
Table 1. Baseline Conditions and Proposed Mitigation Habitat Types at the Proposed Bayou Fisher Mitigation Bank, Amendment One Site, in Pointe Coupee Parish, Louisiana.

Baseline Condition	**Proposed Mitigation Habitat and Type**	**Acres**
Nonwetland/Prior-Converted Cropland	Baldcypress Swamp Re-establishment (<35 feet NAVD)	120.1
Nonwetland/Prior-Converted Cropland	Type 1 and 2 Bottomland Hardwood Re-establishment (35-36 feet NAVD)	31.9
Nonwetlands/Prior-Converted Cropland	Type 2 and 3 Bottomland Hardwood Re-establishment (>36 feet NAVD)	211.8
	Total Mitigation Credit Acreage	***363.8***
Nonwetlands/Prior-Converted Cropland	Access Roads/Irrigation Well Sites/Unnamed Tributary	4.7
	Total Non-mitigation Acreage	***4.7***
	Total Conservation Servitude Acreage	**368.5**

Table 2. Potential Planting Composition of Restoration Acres at the Proposed Bayou Fisher Mitigation Bank, Amendment One Site, in Pointe Coupee Parish, Louisiana[1].

Baldcypress Swamp Species			
Common Name	**Scientific Name**	**Indicator Status[2]**	**Target Composition[1]**
baldcypress	*Taxodium distichum*	OBL	60-80%
swamp tupelo	*Nyssa biflora*	OBL	<20%
Drummond red maple	*Acer rubrum* var. *drummondii*	OBL	<10%
Mayhaw	*Crataegus opaca*	OBL	<10%
Carolina ash	*Fraxinus caroliniana*	OBL	<10%
pumpkin ash	*Fraxinus profunda*	OBL	<10%
buttonbush	*Cephalanthus occidentalis*	OBL	<10%
overcup oak	*Quercus lyrata*	OBL	<10%
Nuttall oak	*Quercus texana*	FACW	<10%
water hickory	*Carya aquatica*	OBL	<10%
Type 1 and 2 Bottomland Hardwood Species (approximately 50 to 70% Hard Mast)			
Common Name	**Scientific Name**	**Indicator Status**	**Target Composition**
overcup oak	*Quercus lyrata*	OBL	<20%
Nuttall oak	*Quercus texana*	FACW	<20%
willow oak	*Quercus phellos*	FACW	<20%
water hickory	*Carya aquatica*	OBL	<20%
baldcypress	*Taxodium distichum*	OBL	<15%
Drummond red maple	*Acer rubrum* var. *drummondii*	OBL[3]	<15%
mayhaw	*Crataegus opaca*	OBL	<15%
green ash	*Fraxinus pennsylvanica*	FACW	<15%
Type 2 and 3 Bottomland Hardwood Species (approximately 50-70% Hard Mast)			
Common Name	**Scientific Name**	**Indicator Status**	**Target Composition**
cow oak	*Quercus michauxii*	FACW	<20%
cherrybark oak	*Quercus pagoda*	FACW	<20%
willow oak	*Quercus phellos*	FACW	<20%
Nuttall oak	*Quercus texana*	FACW	<20%
Delta post oak	*Quercus similis*	FACW	<20%
water oak	*Quercus nigra*	FAC	<20%
sweet pecan	*Carya illinoinensis*	FACU[4]	<20%
sugarberry	*Celtis laevigata*	FACW	<15%
common persimmon	*Diospyros virginiana*	FAC	<15%
green ash	*Fraxinus pennsylvanica*	FACW	<15%
sweetgum	*Liquidambar styraciflua*	FAC	<15%
red mulberry	*Morus rubra*	FACU[4]	<15%
American sycamore	*Platanus occidentalis*	FACW	<15%
eastern cottonwood	*Populus deltoides*	FAC	<15%
American elm	*Ulmus americana*	FAC	<15%

[1] Exact species and quantities to be determined by seedling availability from commercial sources providing seedlings grown from localized ecotypes.
[2] Indicator status from 2013 National Wetland Plant List (Lichvar and Kortesz 2009)
[3] Indicator status from 1988 National Wetland Plant List, Region 2
[4] These species are designated as UPL on the 2013 National Wetland Plant List but were FAC species on the 1988 National Wetland Plant List for Region 2. These species were previously listed as FAC on the 1988 National Wetland Plants List for Region 2. Although potentially upland species, these are native to the site and will provide increased habitat value given the goals of the project. The occurrence of the species at the specified composition will not affect the targeted plant community from being classified as a hydrophytic plant community in accordance with the methodology prescribed in the Atlantic and Gulf Coastal Plain Regional Supplement (USACE 2010).



Legend

- Bayou Fisher Mitigation Bank Amendment One (368.5 Acres)
- Bayou Fisher Mitigation Bank (507.8 Acres)
- National Wildlife Refuges
- State Lands

5 2.5 0 5

Miles

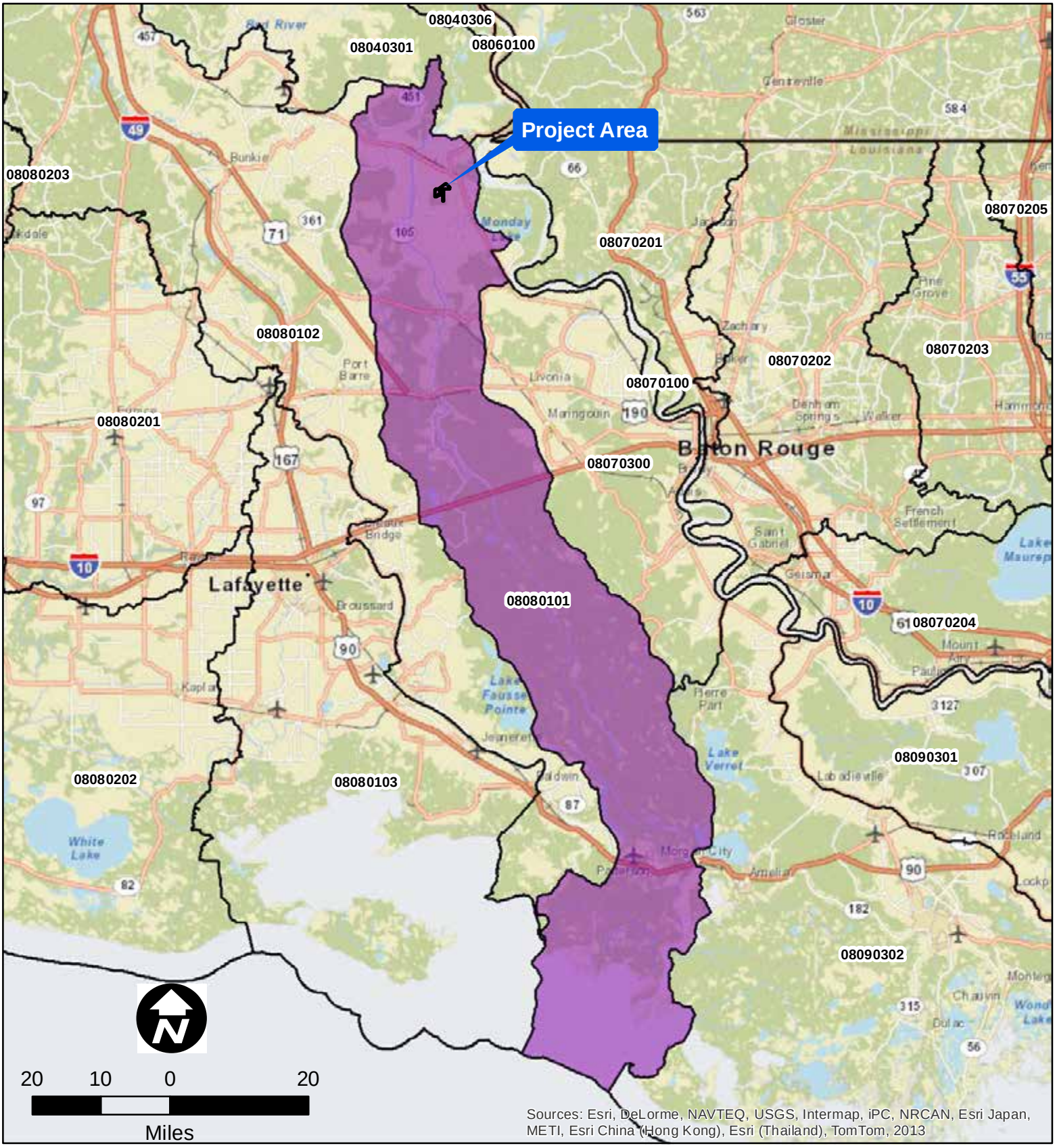
Bayou Fisher Mitigation Bank Amendment One

VICINITY MAP

Pointe Coupee Parish, Louisiana

Created : LJW/ArcView10	
Approved : DEB	
Date : 07/07/2014	
Map : F01_Vicinity_5mi.mxd	

FIGURE 1



Legend

- Bayou Fisher Mitigation Bank Amendment One (368.5 Acres)
- Bayou Fisher Mitigation Bank (507.8 Acres)
- Proposed Service Area

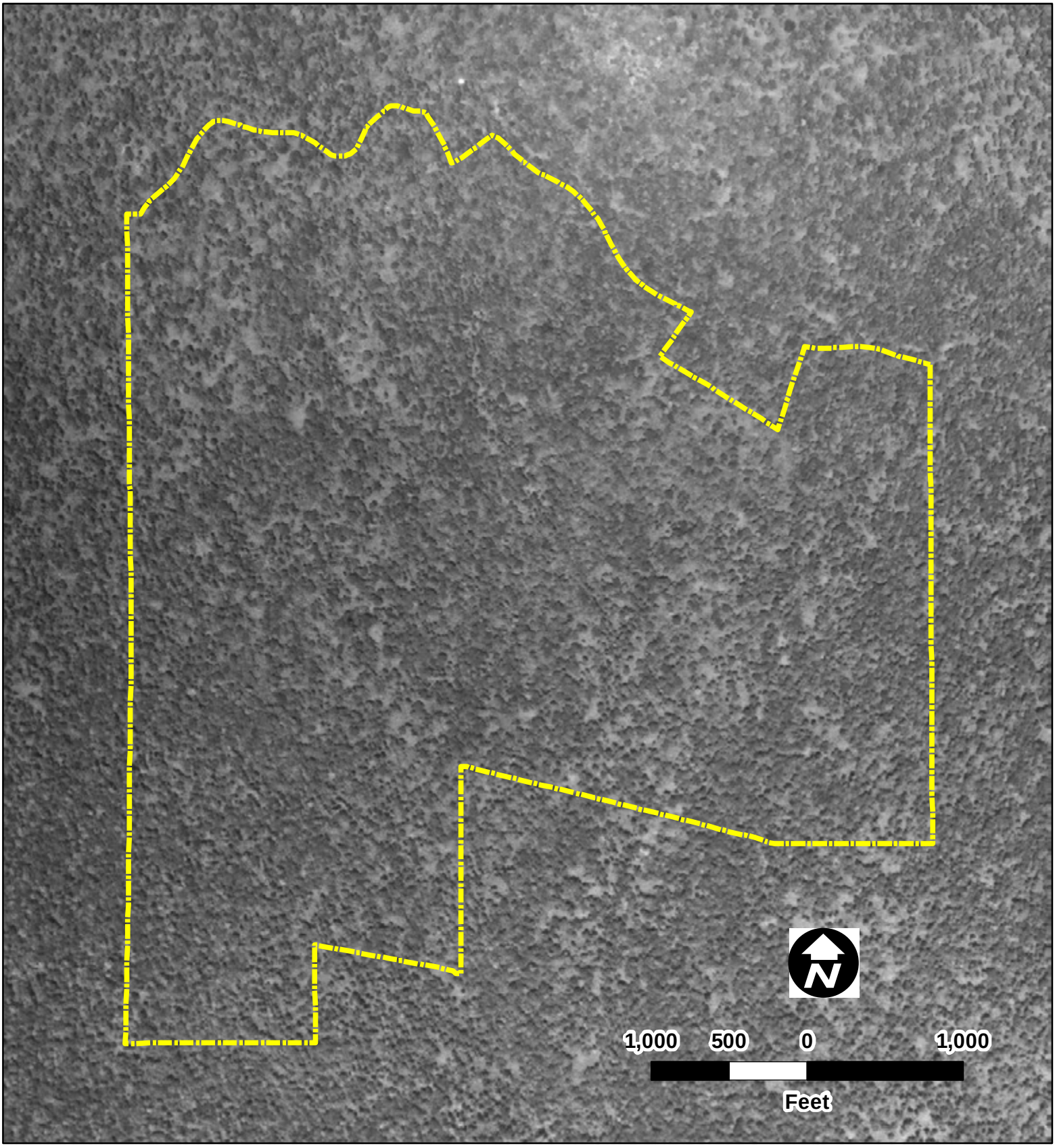
Bayou Fisher Mitigation Bank Amendment One

Watershed Map

Pointe Coupee Parish, Louisiana

Created : LJW/ArcView10	
Approved : DEB	
Date : 07/07/2014	
Map :F02_Watershed Map.mxd	

FIGURE 2



Legend

Bayou Fisher Mitigation Bank Amendment One (368.5 Acres)

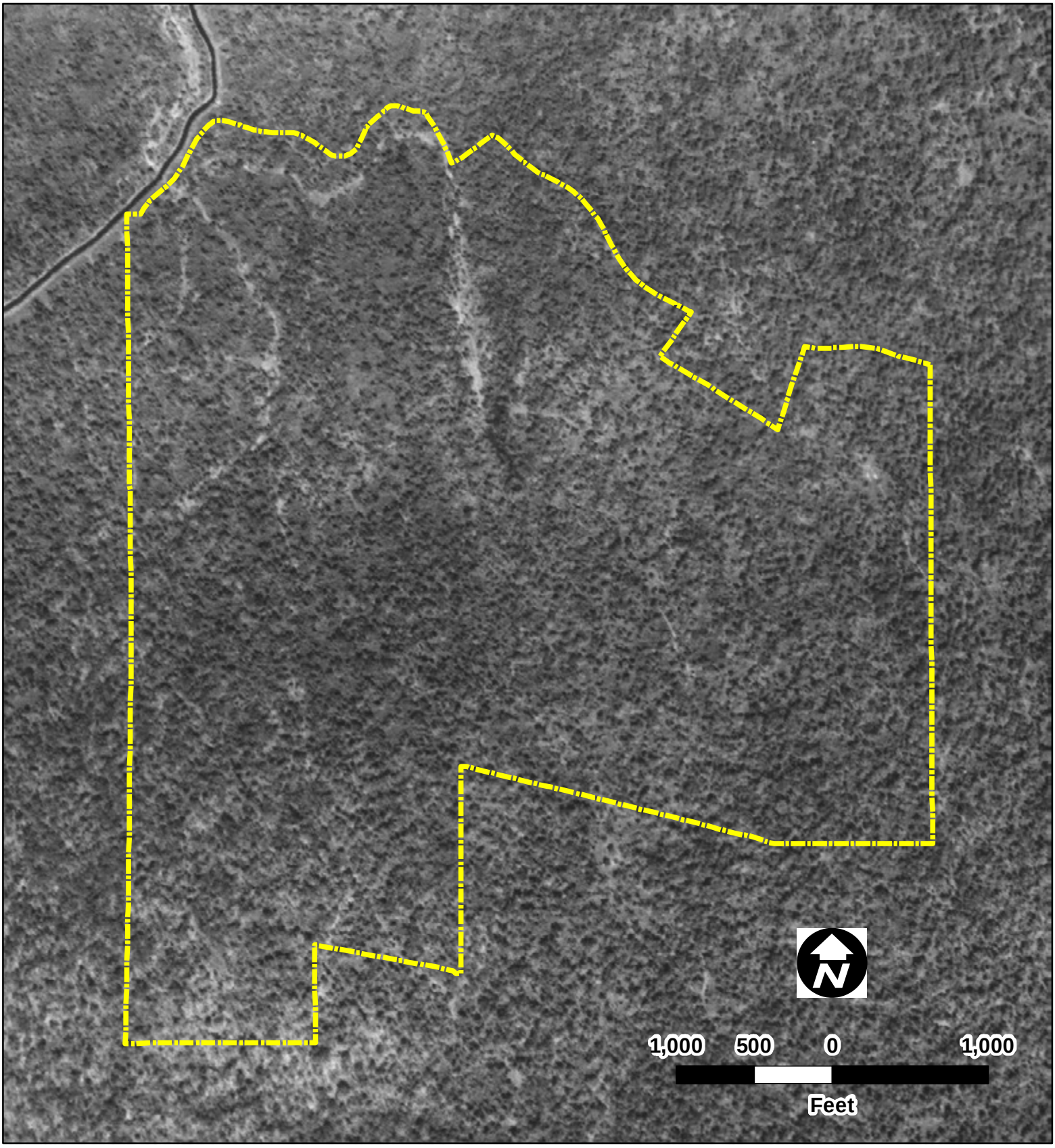
Bayou Fisher Mitigation Bank Amendment One

1941 AERIAL PHOTOGRAPH

Pointe Coupee Parish, Louisiana

Created : LJW/ArcView10	
Approved : DEB	
Date : 07/07/2014	
Map : F03_1941 Aerial Map.mxd	

FIGURE 3



Legend

Bayou Fisher Mitigation Bank Amendment One (368.5 Acres)

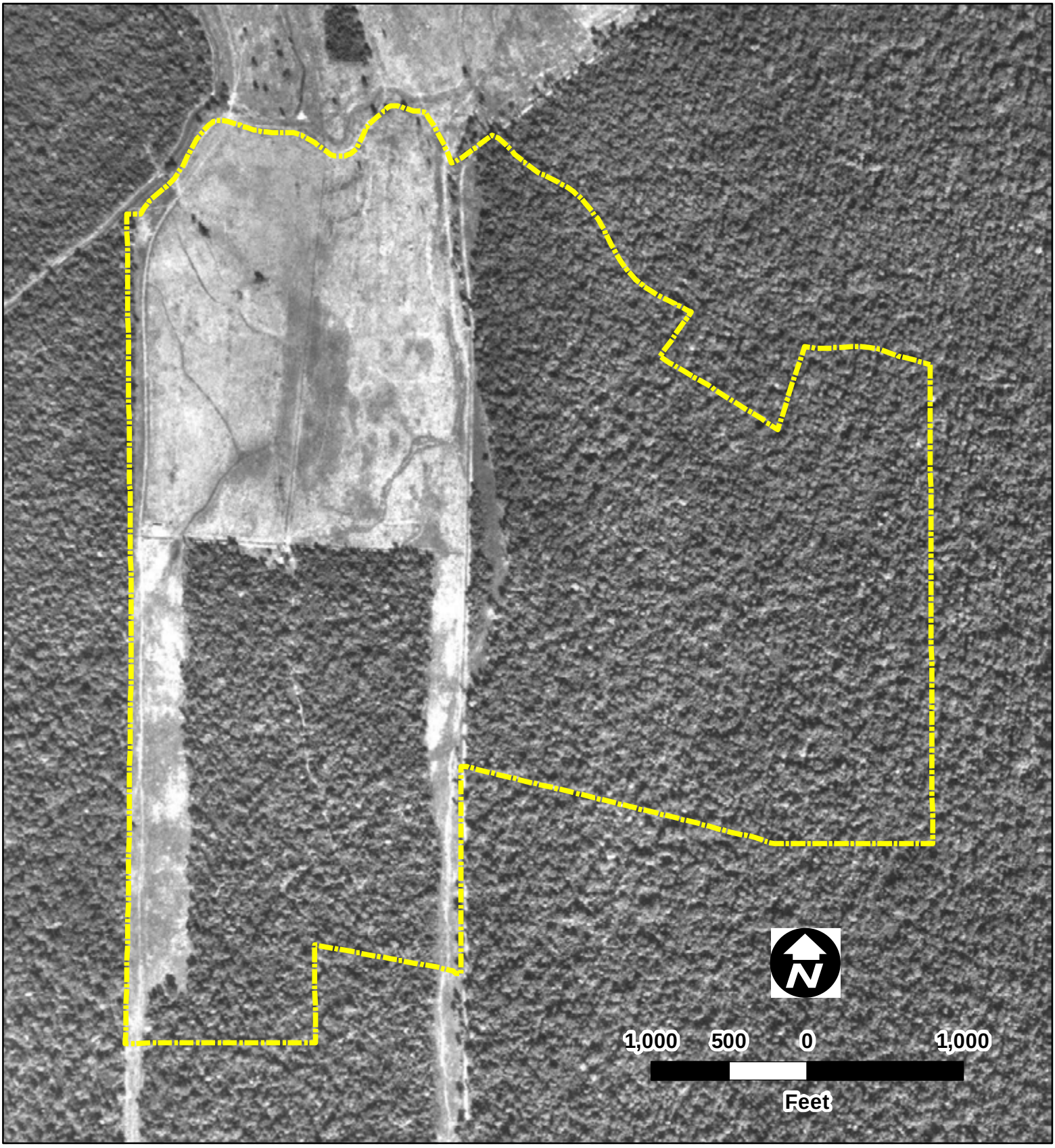
Bayou Fisher Mitigation Bank
Amendment One

1953 AERIAL PHOTOGRAPH

Pointe Coupee Parish, Louisiana

Created : LJW/ArcView10	
Approved : DEB	
Date : 07/07/2014	
Map :F04_1953 Aerial Map.mxd	

FIGURE 4



Legend

Bayou Fisher Mitigation Bank Amendment One (368.5 Acres)

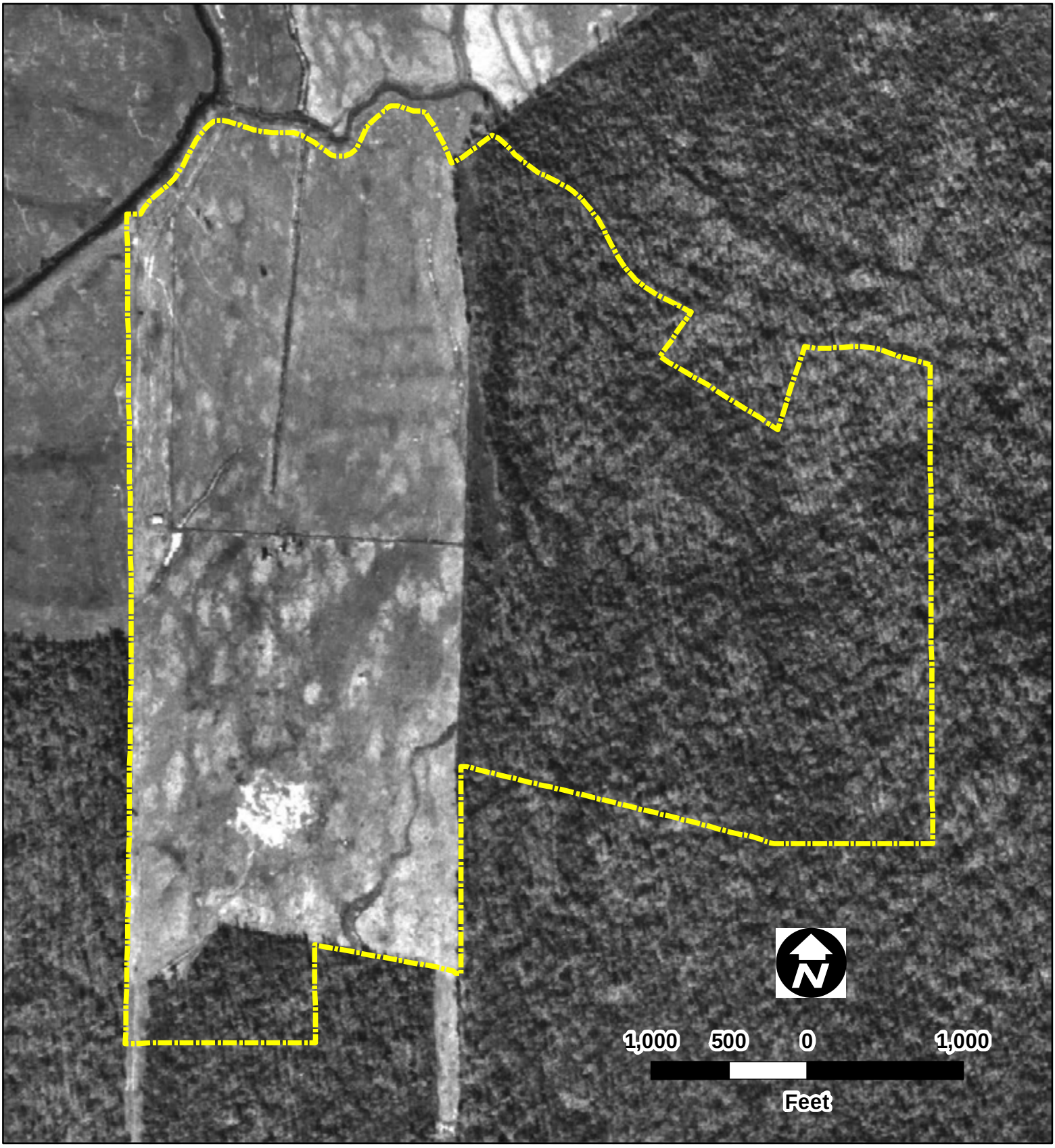
Bayou Fisher Mitigation Bank Amendment One

1966 AERIAL PHOTOGRAPH

Pointe Coupee Parish, Louisiana

Created : LJW/ArcView10	
Approved : DEB	
Date : 07/07/2014	
Map : F04_1966 Aerial Map.mxd	

FIGURE 5



Legend

Bayou Fisher Mitigation Bank Amendment One (368.5 Acres)

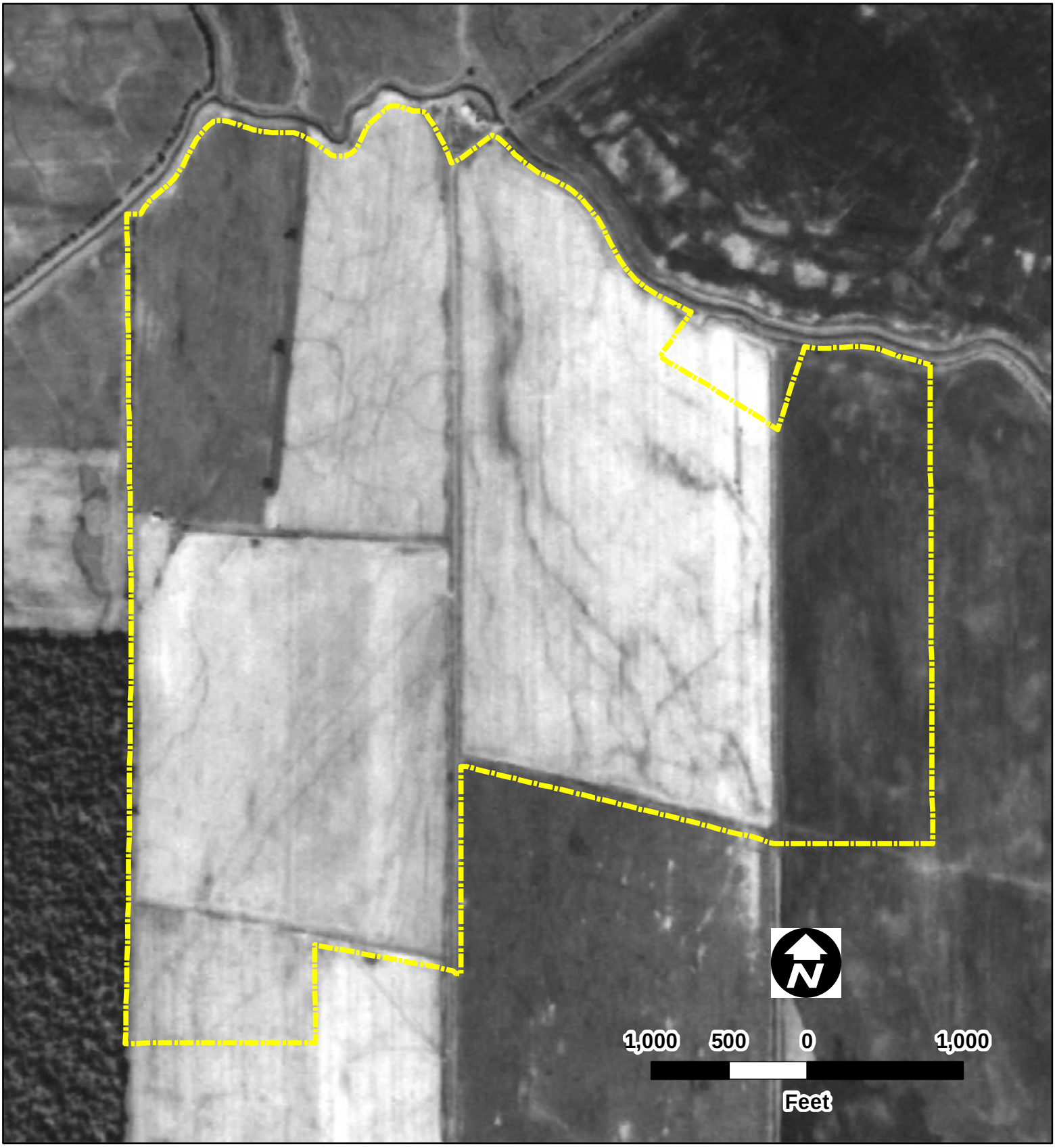
Bayou Fisher Mitigation Bank Amendment One

1972 AERIAL PHOTOGRAPH

Pointe Coupee Parish, Louisiana

Created : LJW/ArcView10	
Approved : DEB	
Date : 07/07/2014	
Map : F06_1972 Aerial Map.mxd	

FIGURE 6



Legend

Bayou Fisher Mitigation Bank Amendment One (368.5 Acres)

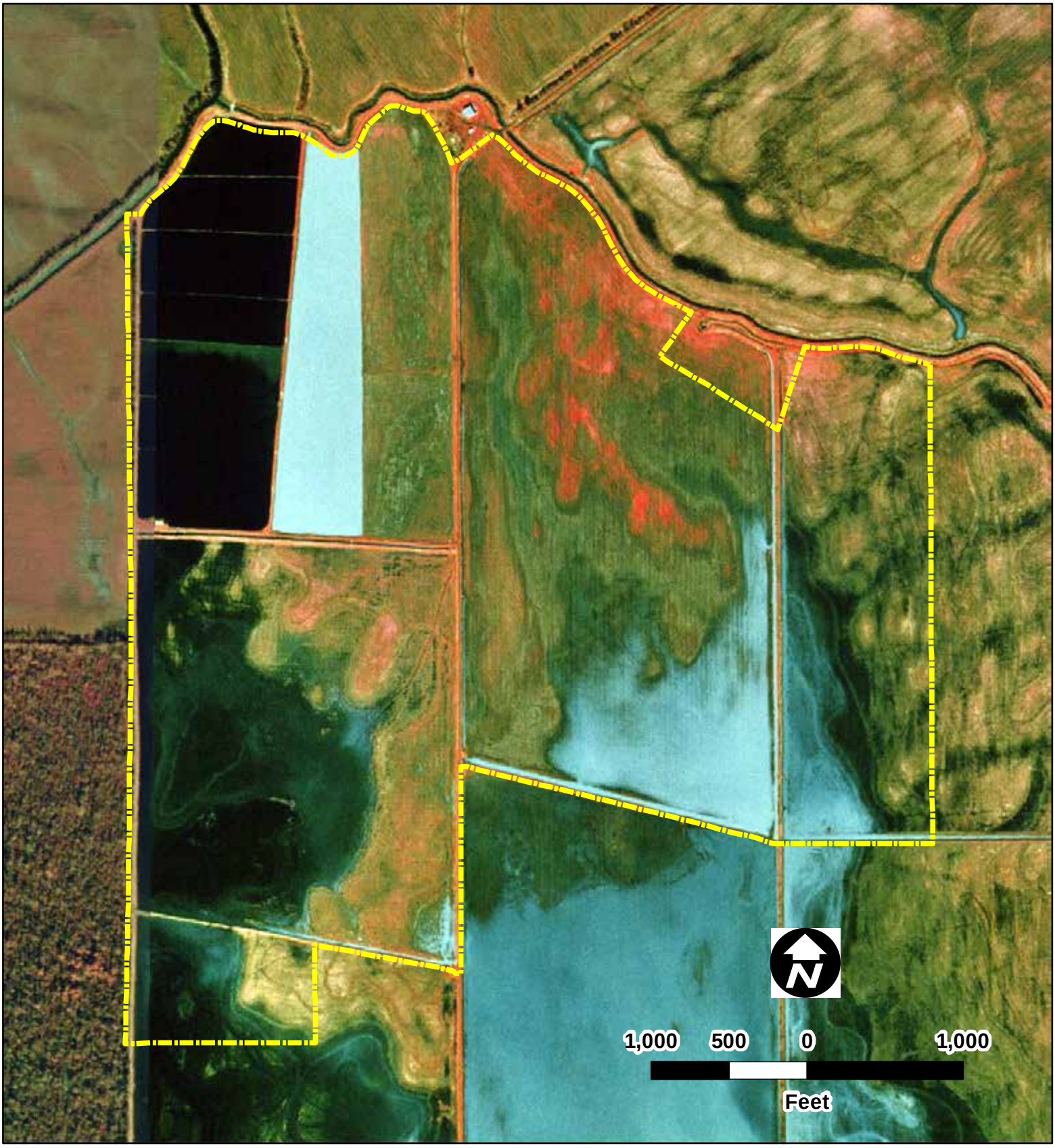
Bayou Fisher Mitigation Bank Amendment One

1983 AERIAL PHOTOGRAPH

Pointe Coupee Parish, Louisiana

Created : LJW/ArcView10	
Approved : DEB	
Date : 07/07/2014	
Map : F07_1983 Aerial Map.mxd	

FIGURE 7



Legend

Bayou Fisher Mitigation Bank Amendment One (368.5 Acres)

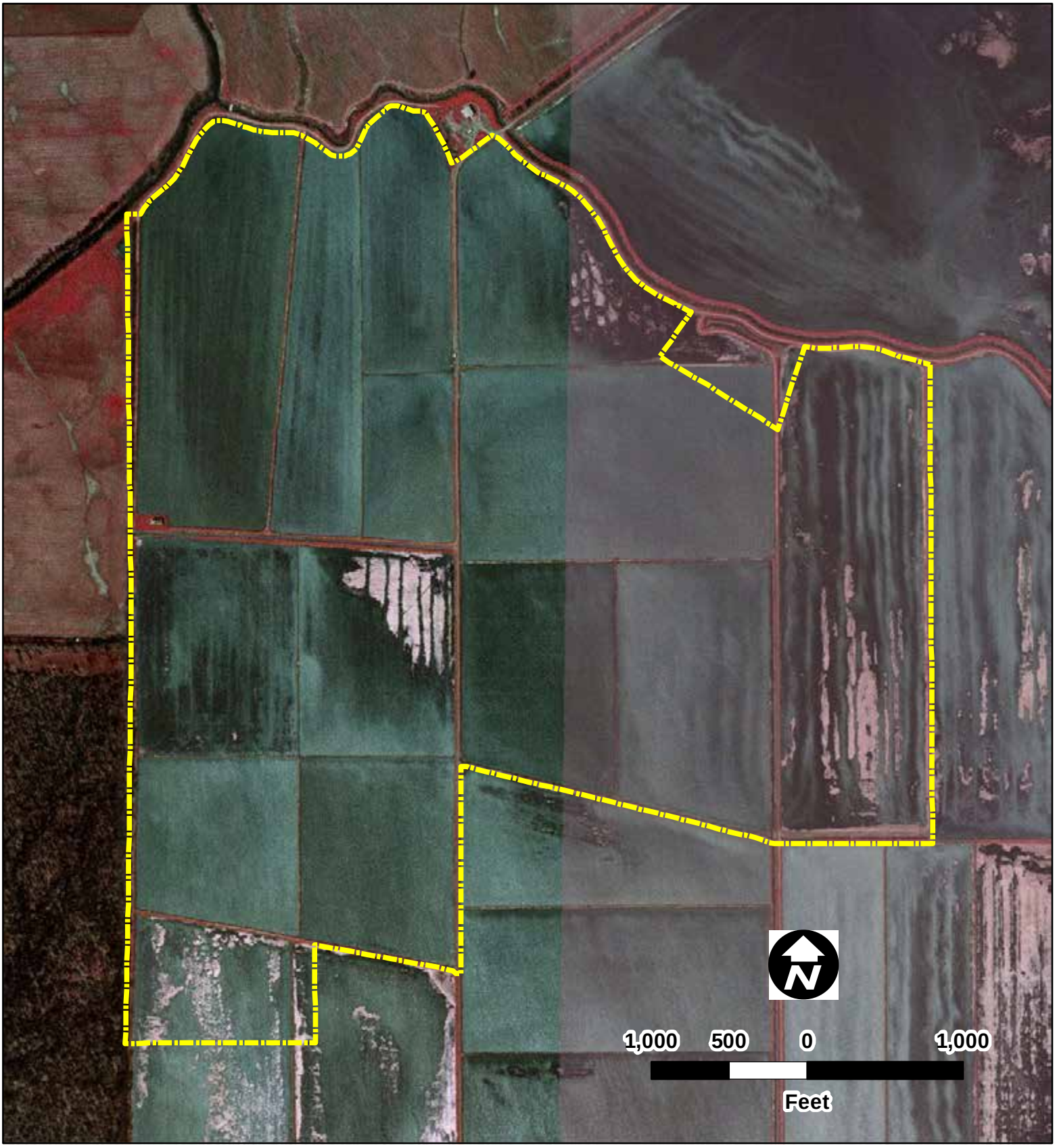
Bayou Fisher Mitigation Bank Amendment One

1998 AERIAL PHOTOGRAPH

Pointe Coupee Parish, Louisiana

Created : LJW/ArcView10	
Approved : DEB	
Date : 07/07/2014	
Map : F08_1998 Aerial Map.mxd	

FIGURE 8



Legend

Bayou Fisher Mitigation Bank Amendment One (368.5 Acres)

Bayou Fisher Mitigation Bank Amendment One

2004 AERIAL PHOTOGRAPH

Pointe Coupee Parish, Louisiana

Created : LJW/ArcView10	
Approved : DEB	
Date : 07/07/2014	
Map : F09_2004 Aerial Map.mxd	

FIGURE 9

Legend

Bayou Fisher Mitigation Bank Amendment One (368.5 Acres)

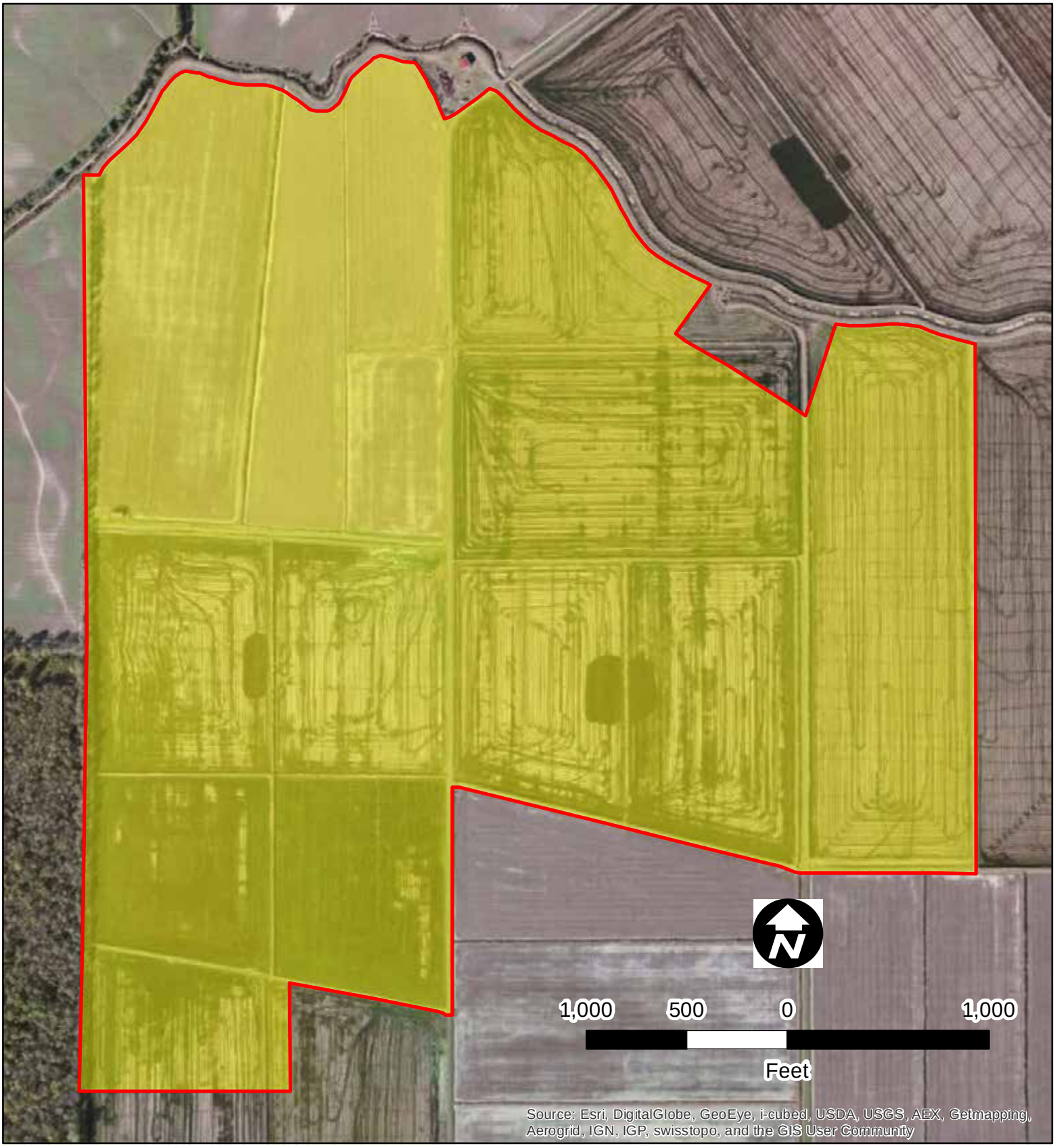
Bayou Fisher Mitigation Bank Amendment One

2010 AERIAL PHOTOGRAPH

Pointe Coupee Parish, Louisiana

Created : LJW/ArcView10	
Approved : DEB	
Date : 07/07/2014	
Map : F10_2010 Aerial Map.mxd	

FIGURE 10



Legend

- Bayou Fisher Mitigation Bank Amendment One (368.5 Acres)
- Sf: Sharkey clay

Note: Soils taken from NRCS SSURGO database for Pointe Coupee Parish.

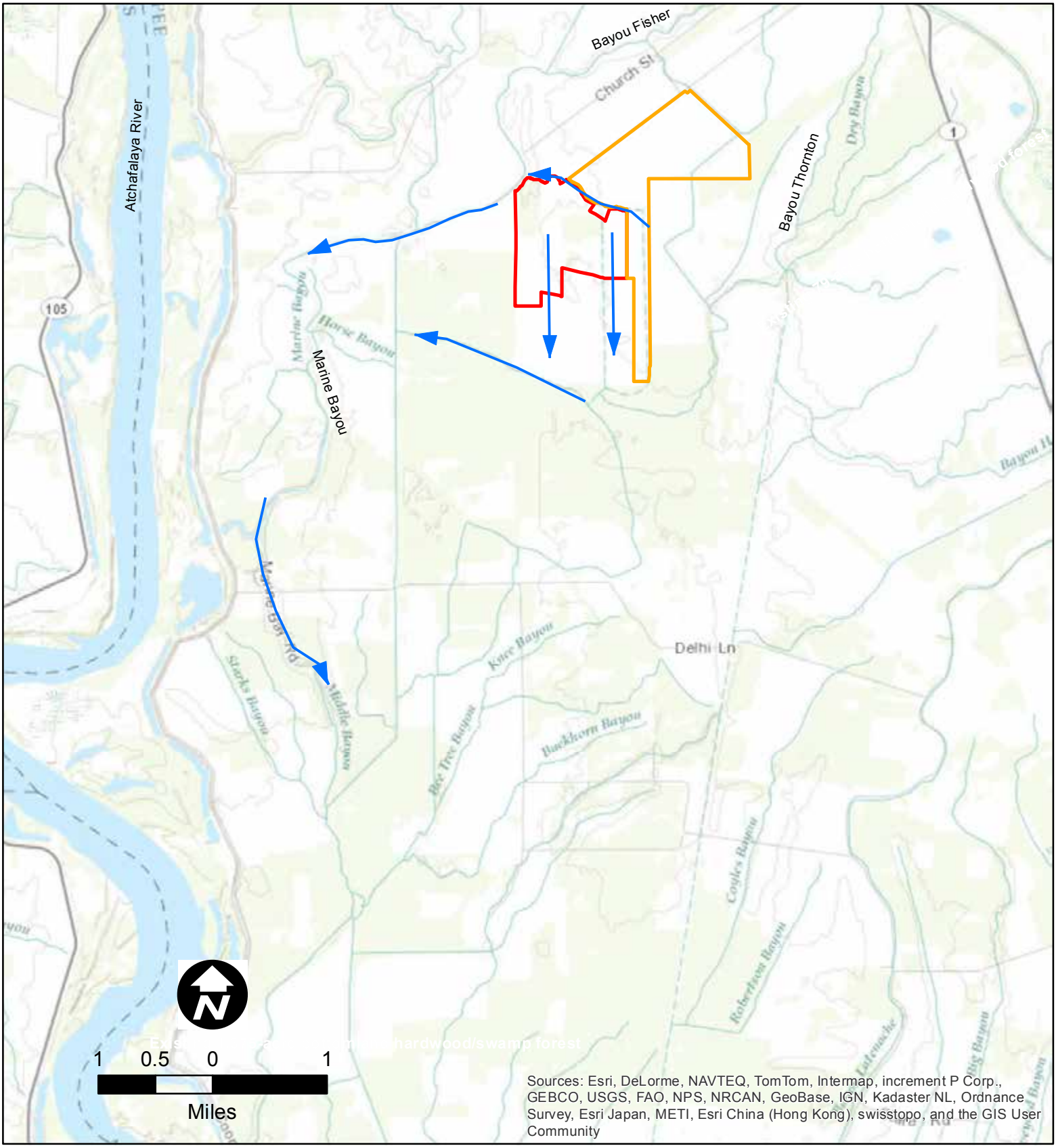
Bayou Fisher Mitigation Bank Amendment One

NRCS Soils Map

Pointe Coupee Parish, Louisiana

Created : LJW/ArcView10	
Approved : DEB	
Date : 07/07/2014	
Map : F11_NRCS Soils Map.mxd	

FIGURE 11



Legend

- Bayou Fisher Mitigation Bank (507.8 Acres)
- Bayou Fisher Mitigation Bank Amendment One (368.5 Acres)
- Flow Direction

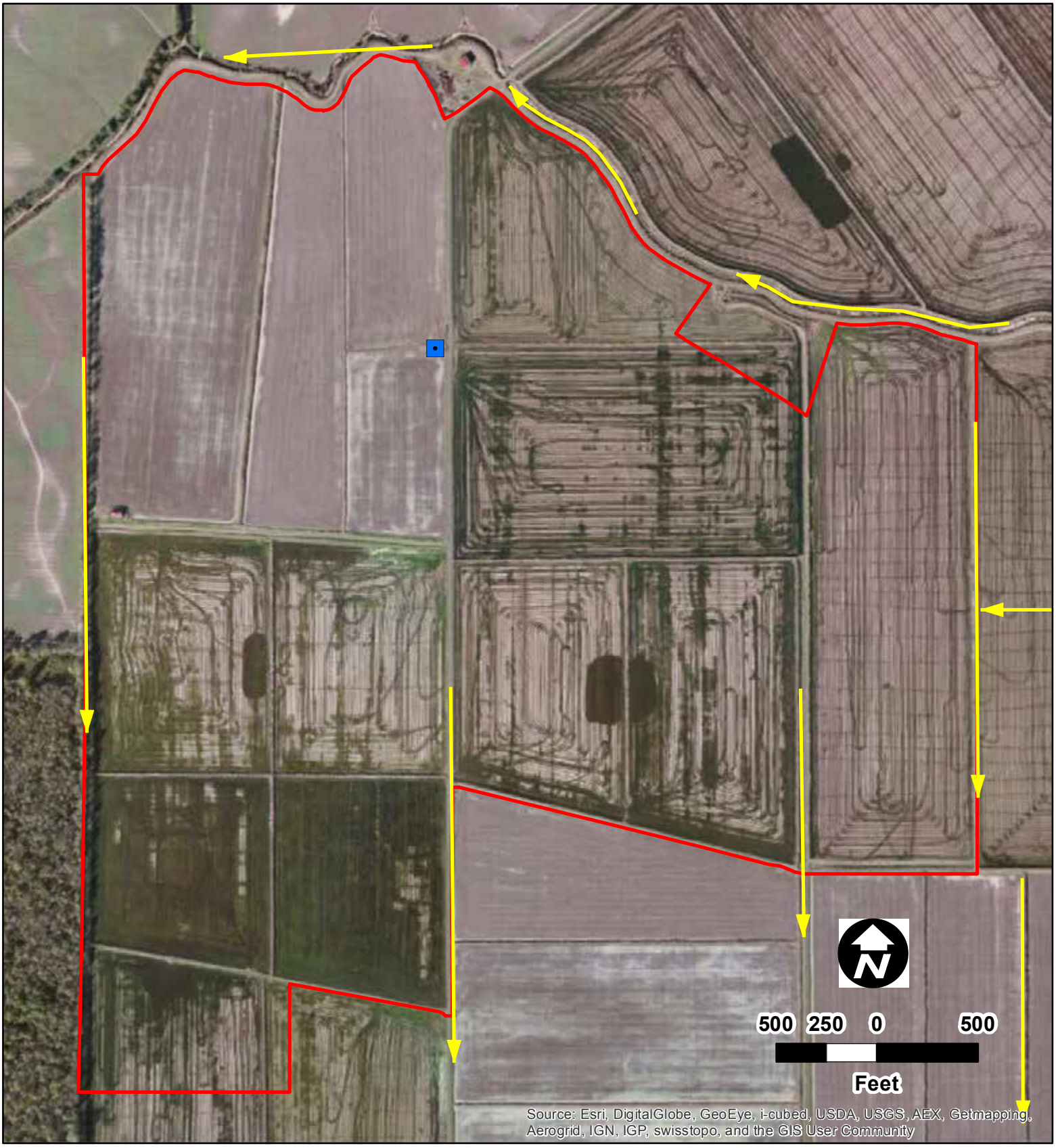
Bayou Fisher Mitigation Bank Amendment One

Historical Drainage Patterns

Pointe Coupee Parish, Louisiana

Created : LJW/ArcView10	
Approved : DEB	
Date : 07/07/2014	
Map : F12_Historical Drainage.mxd	

FIGURE 12



Legend

- Bayou Fisher Mitigation Bank Amendment One (368.5 Acres)
- Irrigation Well
- Flow Direction

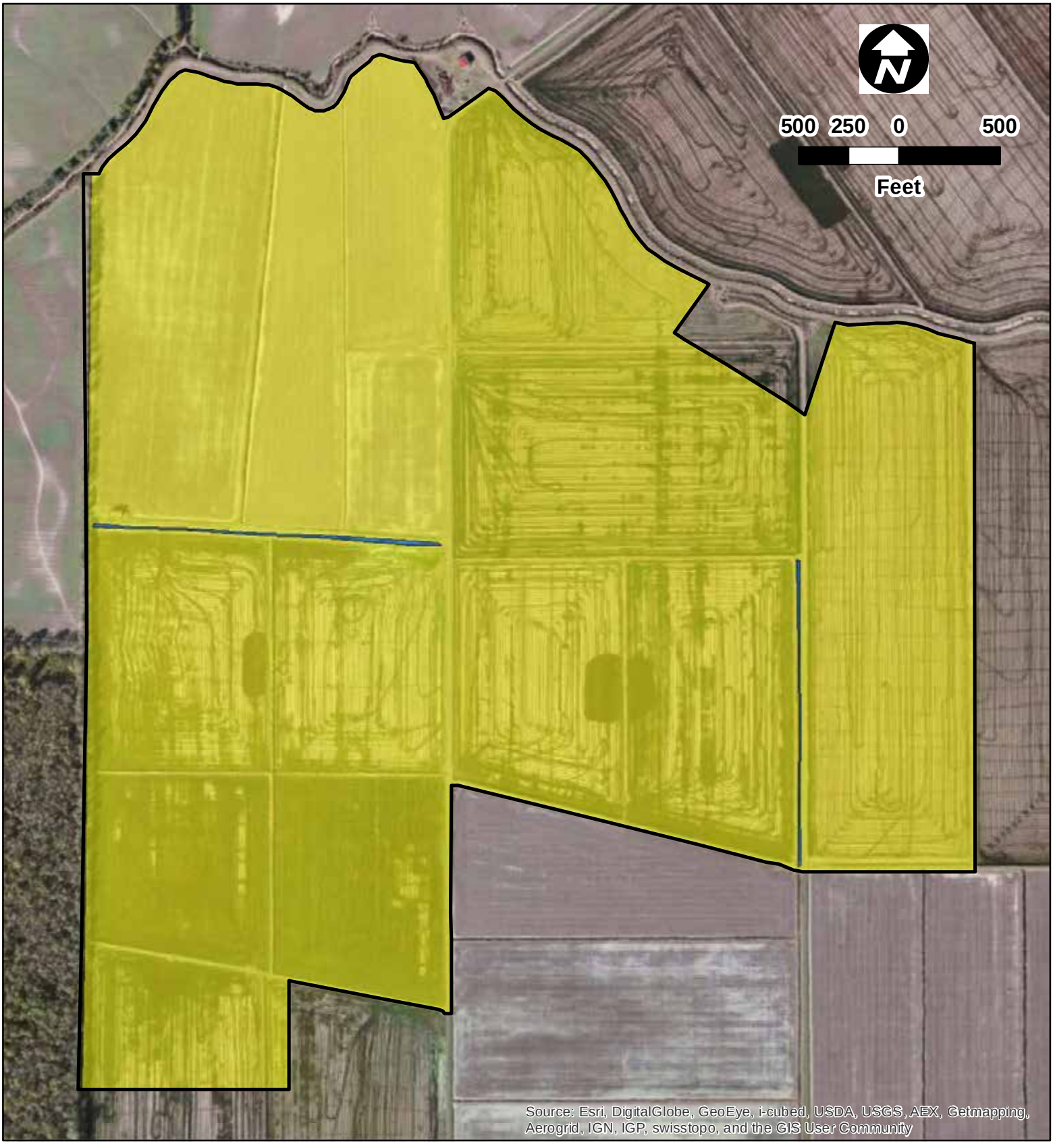
Bayou Fisher Mitigation Bank Amendment One

Existing Drainage Patterns

Pointe Coupee Parish, Louisiana

Created : LJW/ArcView10	
Approved : DEB	
Date : 07/07/2014	
Map : F13_Existing Hydrology.mxd	

FIGURE 13



Legend

- Bayou Fisher Mitigation Bank Amendment One (368.5 Acres)
- Agricultural Field
- Canal

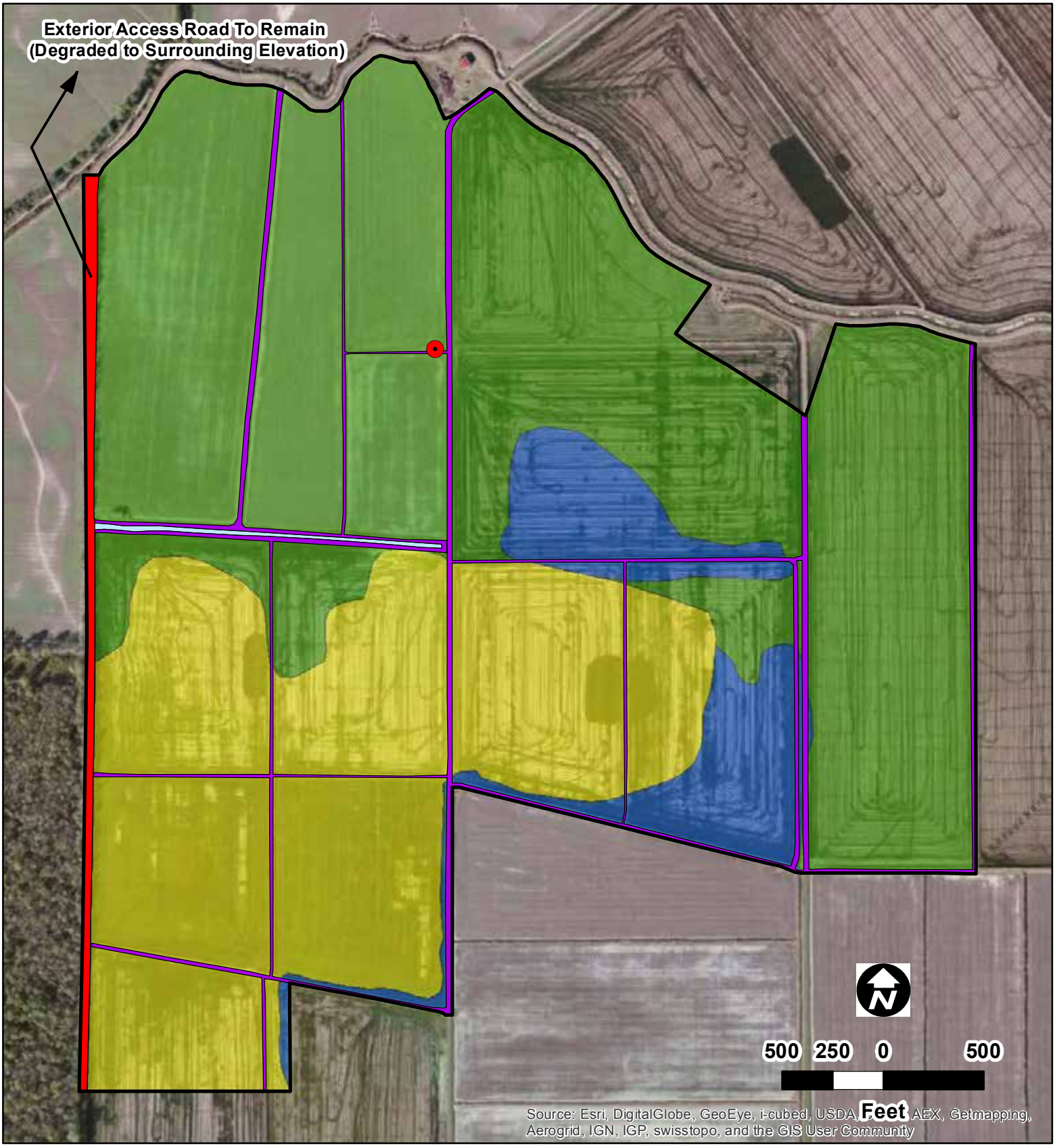
Bayou Fisher Mitigation Bank Amendment One

Existing Plant Community

Pointe Coupee Parish, Louisiana

Created : LJW/ArcView10	
Approved : DEB	
Date : 07/07/2014	
Map : F14_Existing Vegetation.mxd	

FIGURE 14



Legend

- Bayou Fisher Mitigation Bank Amendment One (368.5 Acres)
- Type 1 and 2 Bottomland Hardwood Re-establishment (31.9 Acres)
- Type 2 and 3 Bottomland Hardwood Re-establishment (211.8 Acres)
- Baldcypress Swamp Re-establishment (120.1 Acres)
- Interior Levee/Road to be Removed (13.9 Acres)
- Perimeter Road to be Degraded and Remain (4.7 Acres)
- Canal/Ditch to be Filled (0.8 Acres)
- Water Well to be Removed

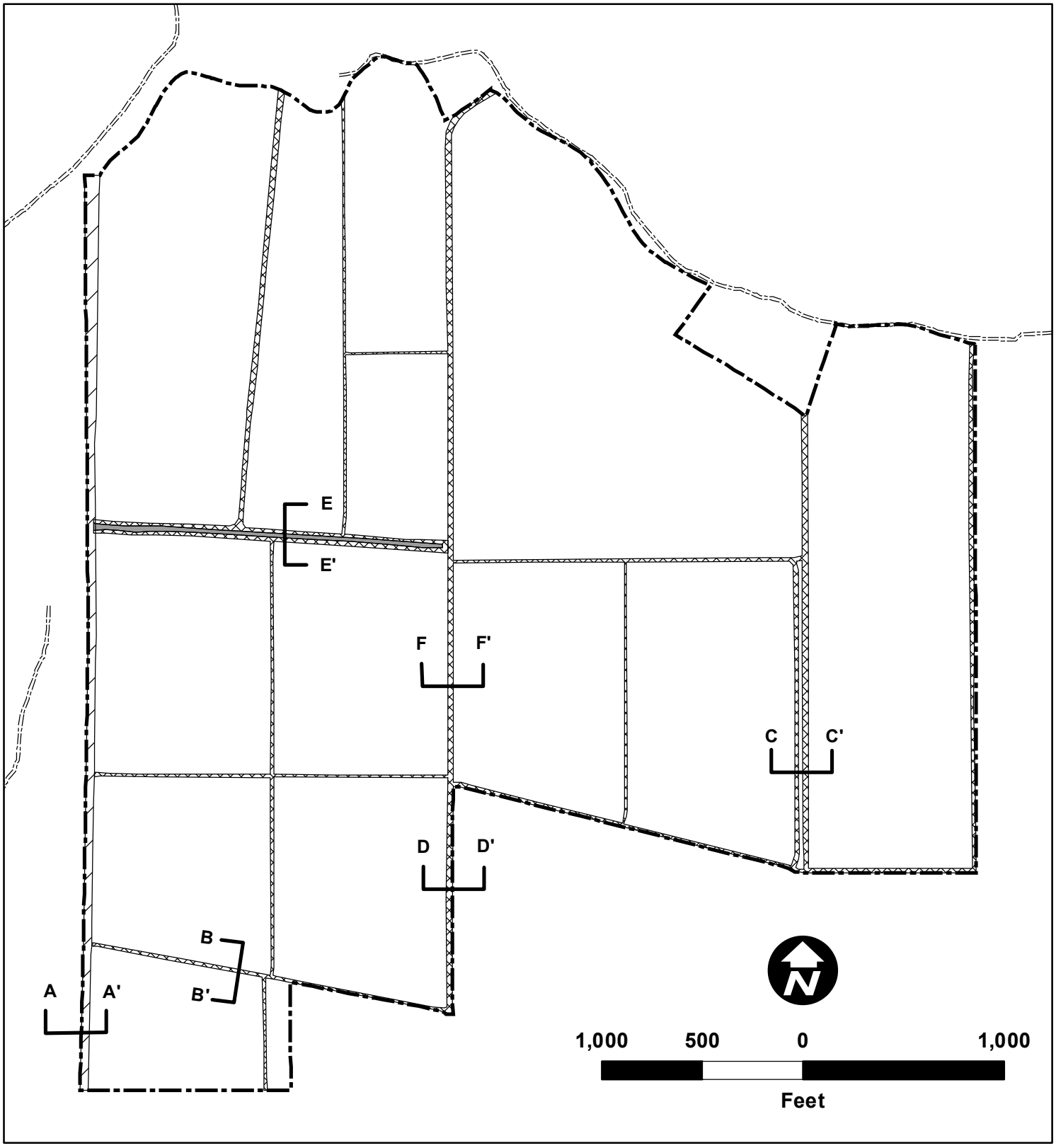
Bayou Fisher Mitigation Bank Amendment One

Mitigation Features

Pointe Coupee Parish, Louisiana

Created : LJW/ArcView10	
Approved : DEB	
Date : 07/07/2014	
Map : F15_Mitigation Features.mxd	

FIGURE 15



Legend

- Bayou Fisher Mitigation Bank Amendment One (368.5 Acres)
- Interior Levee/Road to be Removed (13.9 Acres)
- Perimeter Road to be Degraded and Remain (4.7 Acres)
- Canal/Ditch to be Filled (0.8 Acres)
- Agriculture Drain / Canal

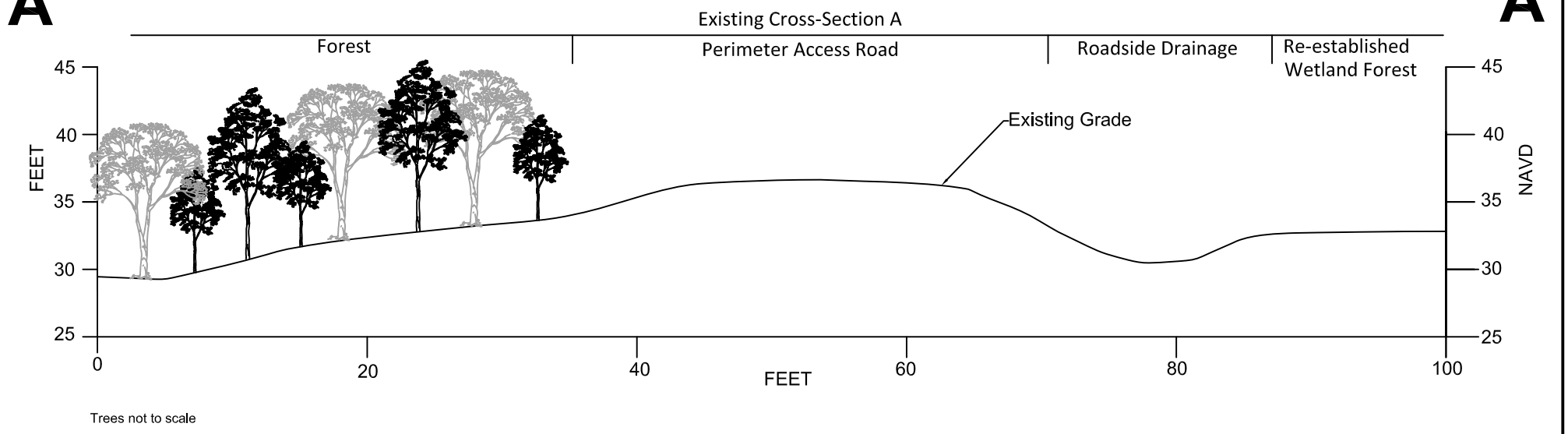
BAYOU FISHER MITIGATION BANK AMENDMENT ONE

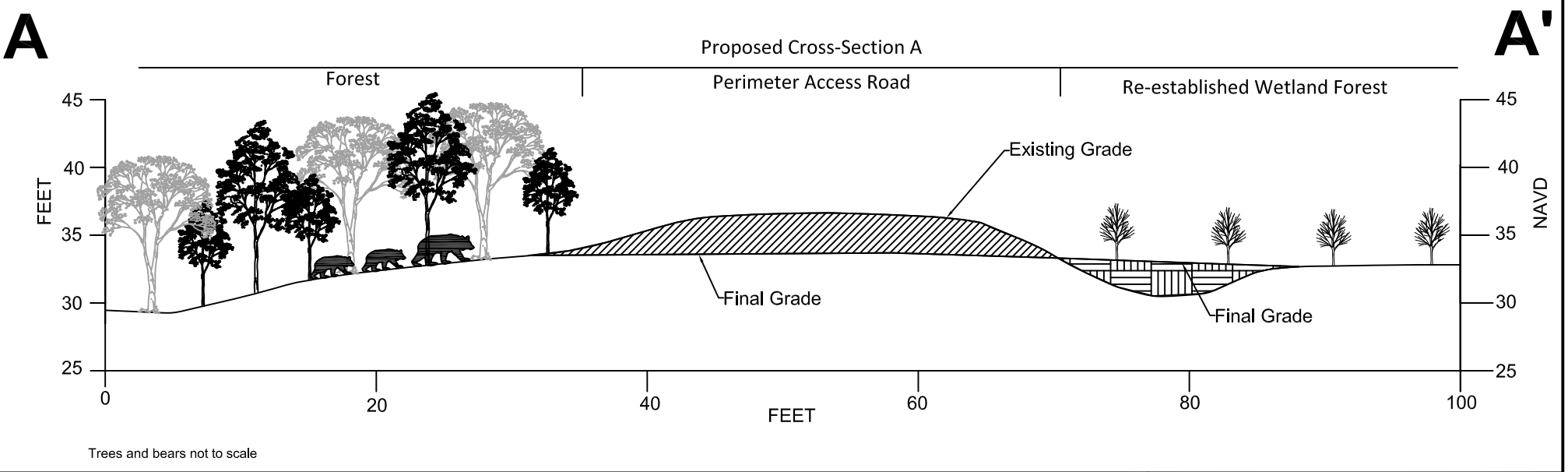
HYDROLOGIC PLAN VIEW

Pointe Coupee Parish, Louisiana

Created : TSC/ArcView10	
Approved : LJW	
Date : 7/07/2014	
Map :F16_Plan View.mxd	

FIGURE 16





PROPOSED EXCAVATION (PLACED IN AGRICULTURAL FIELD)

PROPOSED EARTHEN FILL

Note: Perimeter access road to be degraded to surrounding elevation and remain a perimeter access road.

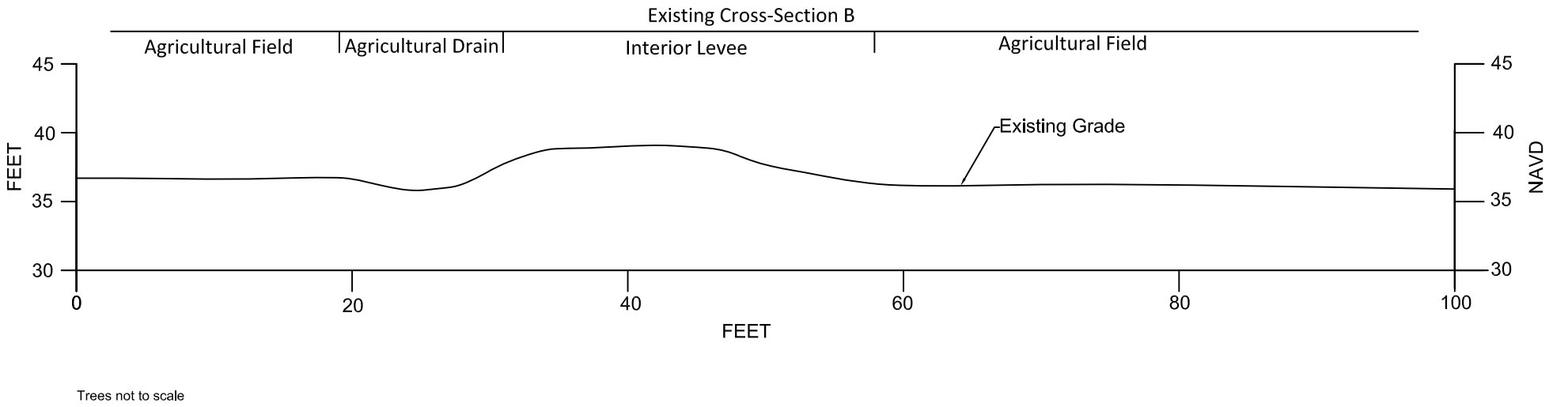
Bayou Fisher Mitigation Bank Amendment One

CROSS-SECTION A

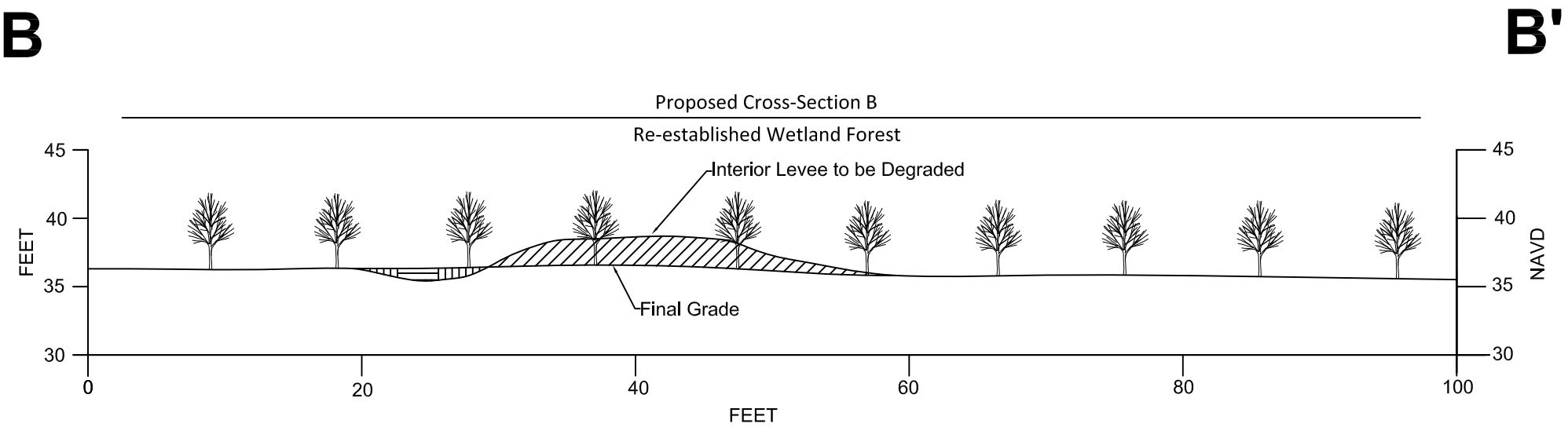
POINTE COUPEE PARISH, LA

Created:	TSC/AutoCAD
Approved:	LJW
Date:	07/07/2014
Dwg. No.:	BayouFisher_xsections.dwg

FIGURE 17



Trees not to scale



Trees not to scale

PROPOSED EXCAVATION

PROPOSED EARTHEN FILL

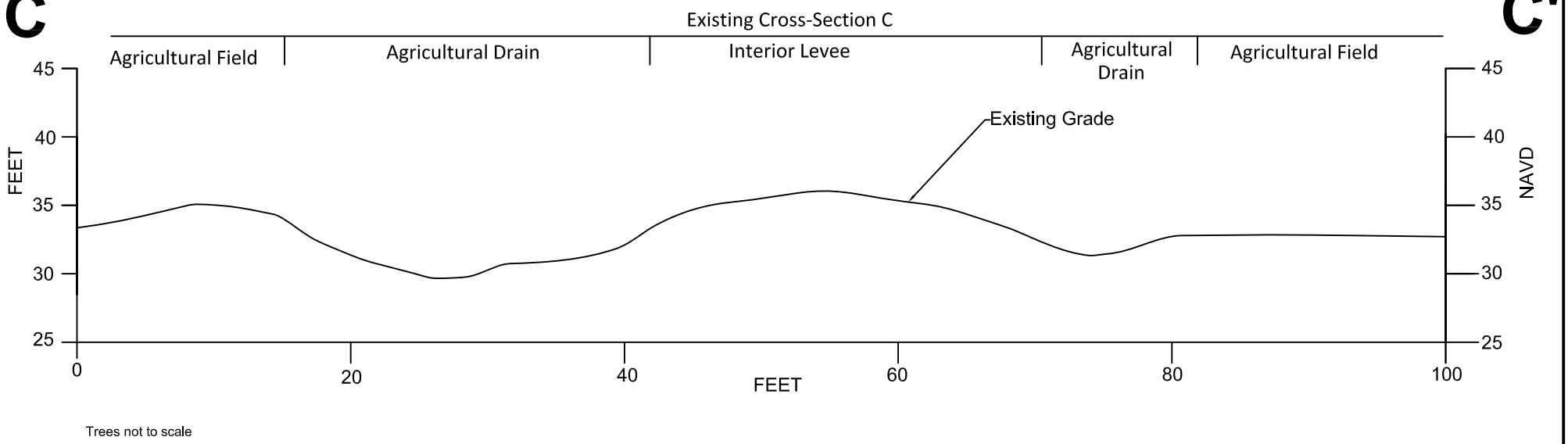
Bayou Fisher Mitigation Bank Amendment One

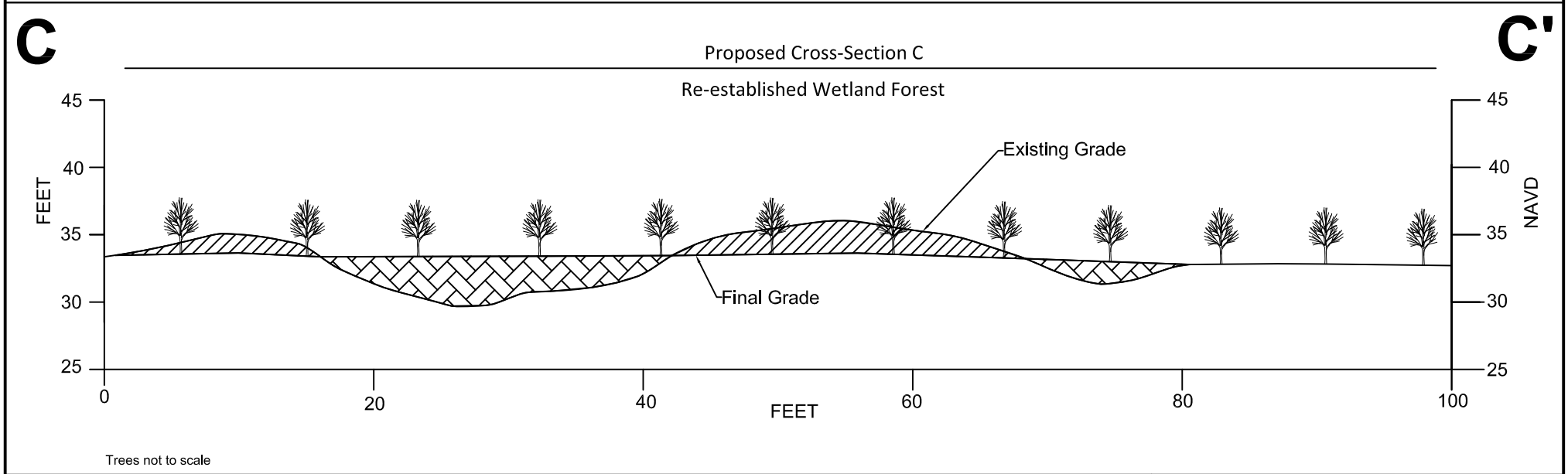
CROSS-SECTION B

POINTE COUPEE PARISH, LA

Created:	TSC/AutoCAD
Approved:	LJW
Date:	07/07/2014
Dwg. No.:	BayouFisher_xsections.dwg

FIGURE 18





PROPOSED EXCAVATION

PROPOSED EARTHEN FILL

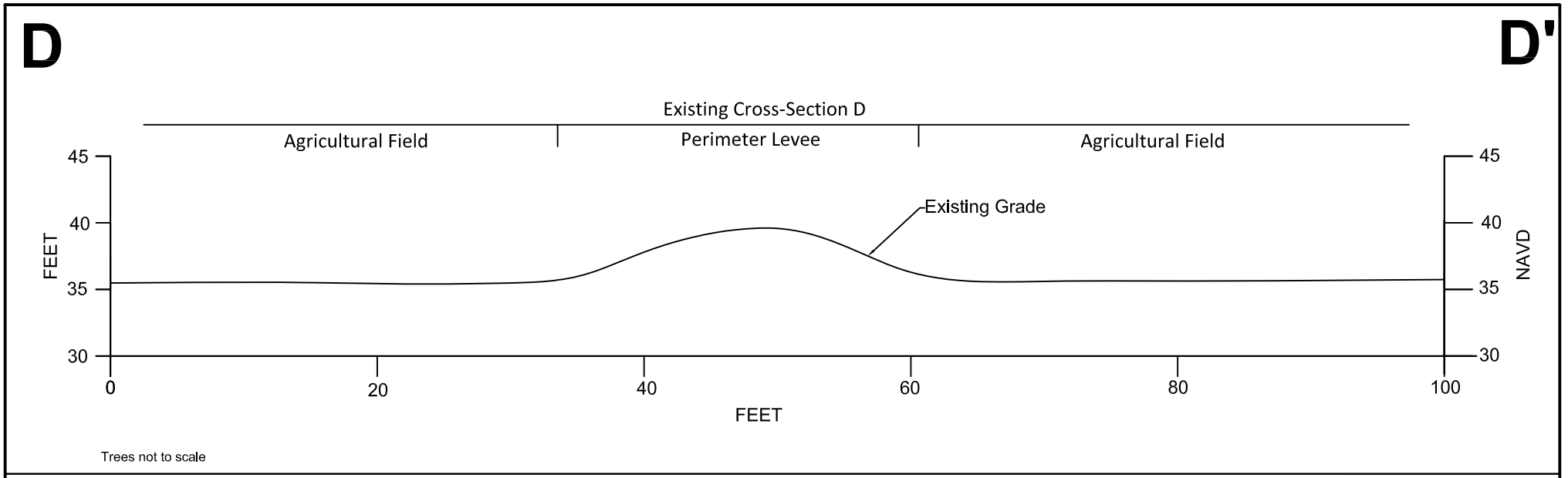
Bayou Fisher Mitigation Bank Amendment One

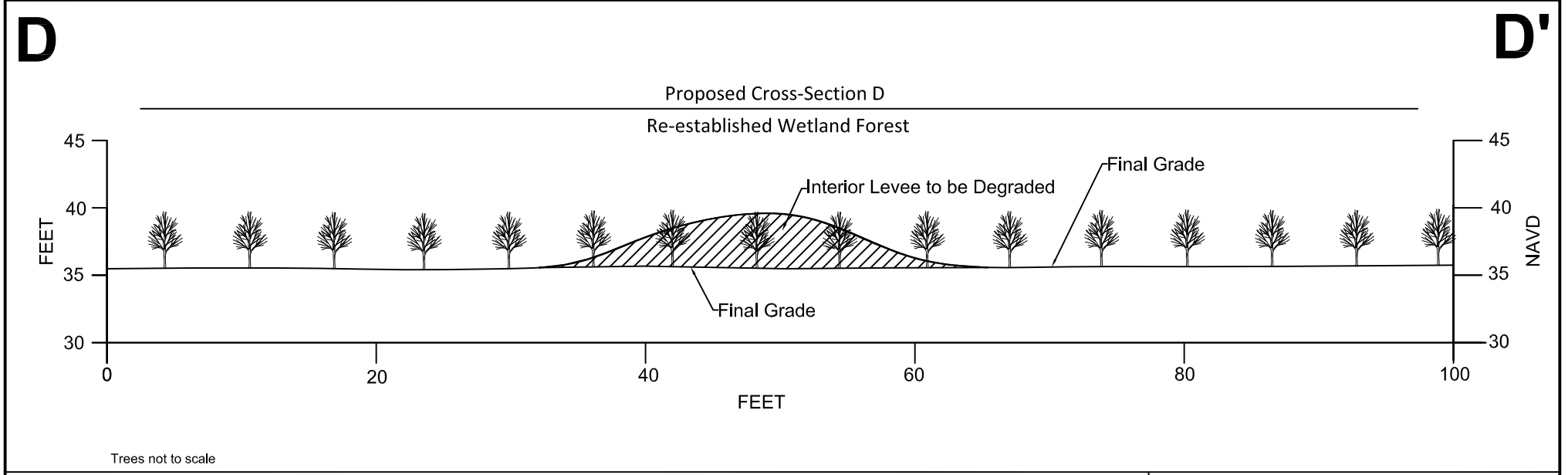
CROSS-SECTION C

POINTE COUPEE PARISH, LA

Created:	TSC/AutoCAD
Approved:	LJW
Date:	07/07/2014
Dwg. No.:	BayouFisher_xsections.dwg

FIGURE 19





PROPOSED EXCAVATION

PROPOSED EARTHEN FILL

Bayou Fisher Mitigation Bank
Amendment One

CROSS-SECTION D

POINTE COUPEE PARISH, LA

Created:	TSC/AutoCAD
Approved:	LJW
Date:	07/07/2014
Dwg. No.:	BayouFisher_xsections.dwg

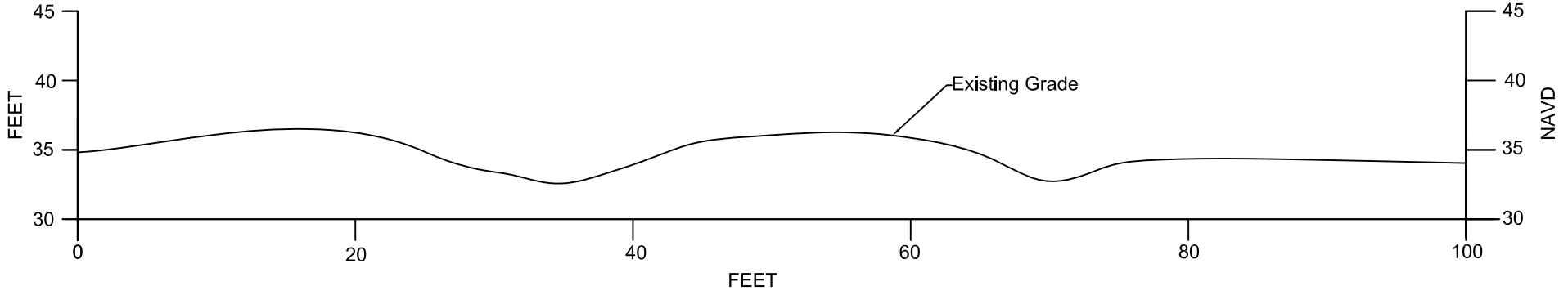
FIGURE 20

E

E'

Existing Cross-Section E

Agricultural Field | Agricultural Drain | Interior Levee | Agricultural Drain | Agricultural Field

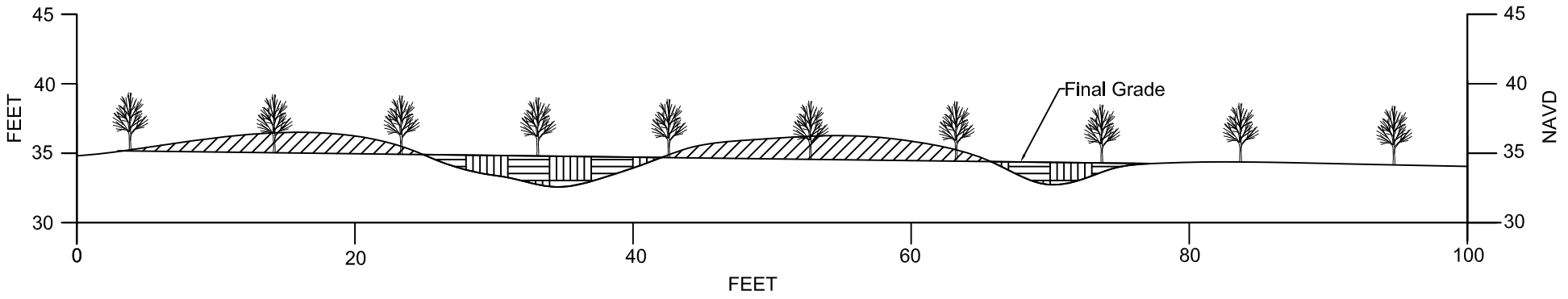


E

E'

Proposed Cross-Section E

Re-established Wetland Forest



PROPOSED EXCAVATION

PROPOSED EARTHEN FILL

Bayou Fisher Mitigation Bank Amendment One

CROSS-SECTION E

POINTE COUPEE PARISH, LA

Created:	TSC/AutoCAD
Approved:	LJW
Date:	07/07/2014
Dwg. No.:	BayouFisher_xsections.dwg

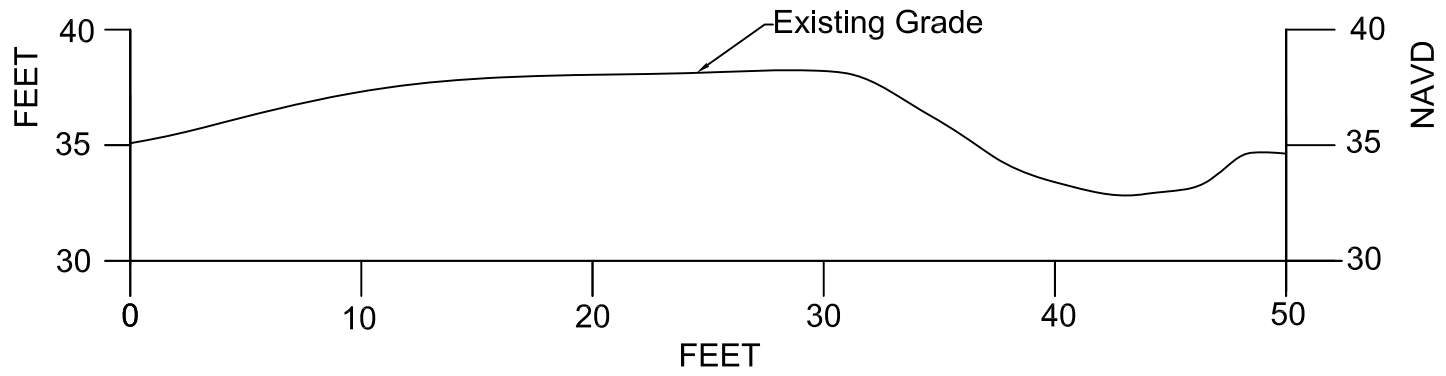
FIGURE 21

F

F'

Existing Cross-Section F

Interior Levee | Agricultural Drain

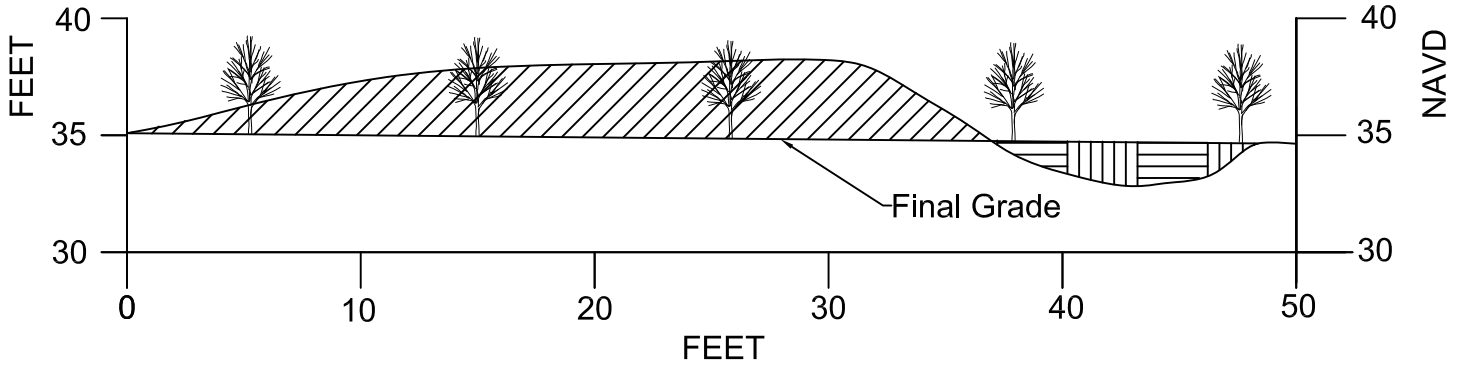


F

F'

Proposed Cross-Section F

Re-established Wetland Forest



PROPOSED EXCAVATION

PROPOSED EARTHEN FILL

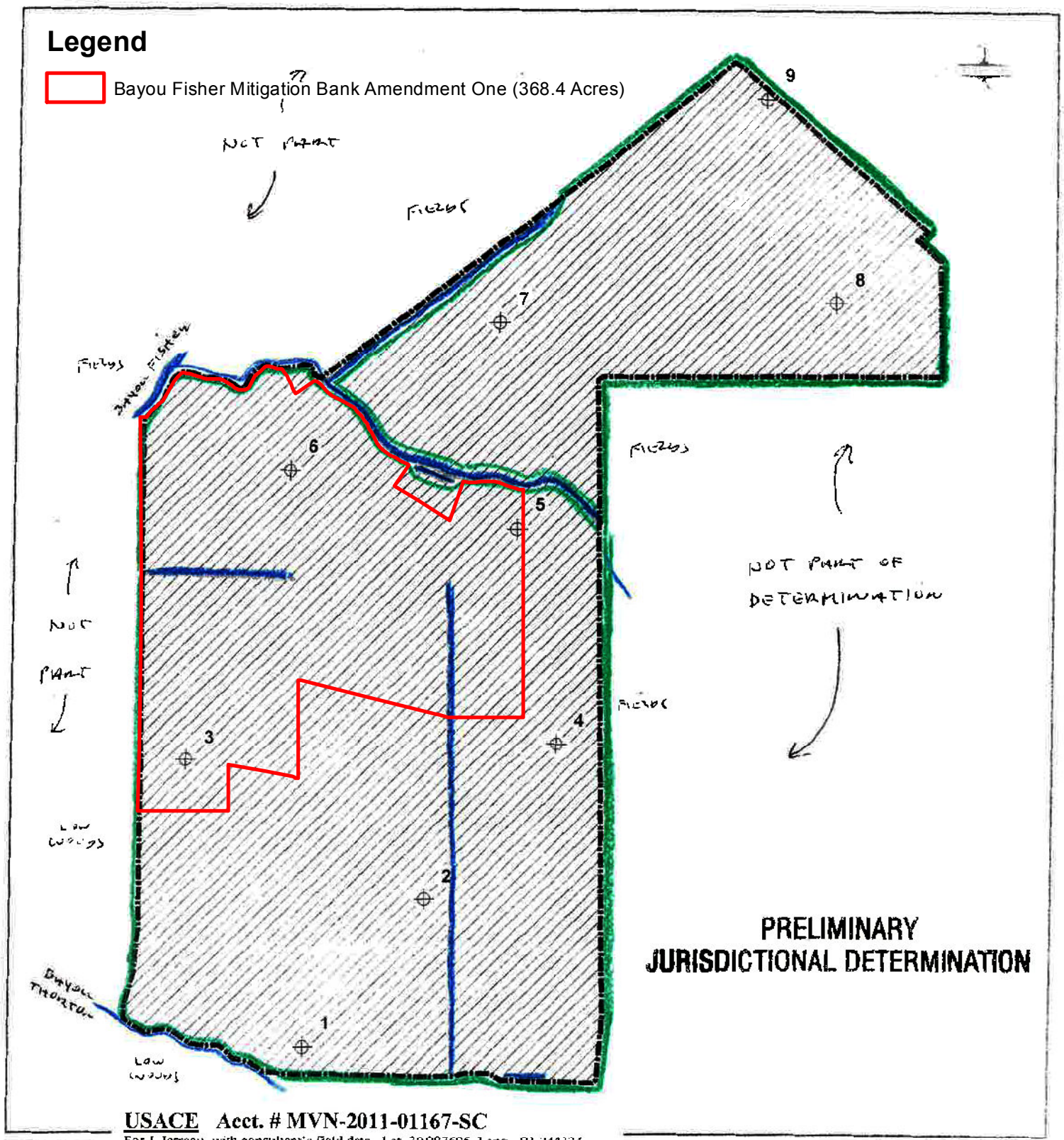
Bayou Fisher Mitigation Bank
Amendment One

CROSS-SECTION F

POINTE COUPEE PARISH, LA

Created:	TSC/AutoCAD
Approved:	LJW
Date:	07/07/2014
Dwg. No.:	BayouFisher_xsections.dwg

FIGURE 22



USACE Acct. # MVN-2011-01167-SC

For J. Jarreau, with consultant's field data. Lat. 30.907695, Long. -91.744324
Sections 35, 36, 40, 45 & 46, T2S, R7E, Pointe Coupee Parish, La. fsv9-21-11gmc

Legend

- Project Area (1,313.5 Acres)
- = Nonwetland
- = Sec 404 Water
- DataPoints

1,500 750 0 1,500
Feet

Bayou Fisher

WETLAND DELINEATION MAP

Pointe Coupee Parish, LA

Created :	JMJ/ArcView
Approved :	DEB
Date :	4/12/2011
Map No. :	Figure3DelineationMap.mxd

FIGURE 23

ATTACHMENT MWP B

COST ANALYSIS REPORT

Cost Reference for Bayou Fisher Mitigation Bank, Amendment One
ver 1.1

Item	Units	Unit Values	Price Per Unit	Total Cost
Boundary Maintenance	Miles	3.8	$ 150.00	$ 570.00
Invasive Species Control	Acre	368.5	$ 90.00	$ 33,165.00
Invasive Species Control Mobilization	Fixed	Fixed	Fixed	$ 100.00
Inspections (rate and per diem)	Day	1.0	$ 790.00	$ 790.00
Taxes on Project Acreage	Acre	368.5	$ 3.00	$ 1,105.50
Planted Acreage	Acre	363.8	NA	NA
Planting Rate	Trees/Acre	538.0	NA	NA
Seedling Cost (BRS)	Seedling	538.0	$ 0.22	$ 118.36
Seedling Installation Rate	Seedling	538.0	$ 0.17	$ 91.46
Planting Cost (BRS and Installation)	Seedling	538.0	$ 0.39	$ 209.82
Earth Moving	Cubic Yards	105,317	$ 2.00	$ 210,634.00
Site Prep and Preemergent Spray	Acres	363.8	$ 120.00	$ 43,656.00
Credit Acreage	Acres	363.8	NA	NA
Conservation Servitude Acreage	Acres	368.5	NA	NA
Access Road Maintenance	Acres	4.7	$ 10.00	$ 47.00

BRS= bare-root seedlings

Estimated Construction Costs for
Bayou Fisher Mitigation Bank, Amendment One
Year 0

Item	*Units*	*Unit Values*	*Price Per Unit*	*Cost*
Hydrology Restoration	Cubic Yards	105,317	$ 2.00	$ 210,634.00
Site Prep and Preemergent Spray	Acres	363.8	$ 120.00	$ 43,656.00
Planting Costs	Acres	363.8	$ 209.82	$ 76,332.52
Subtotal				***$ 330,622.52***
Construction Cost with 5% Contingency				**$ 347,153.64**
Cost Per Credit Acre				**$ 954.24**

Estimated Establishment Costs for
Bayou Fisher Mitigation Bank, Amendment One
Year 1 to 15

Year	Event	Event Cost	Percent	Occurences Per Year	Inflation Factor	Cost	Percent of Cost	Release Milestone
1	Monitoring/ Inspection	$ 790.00	100%	0	1.0000	$ -		***$128,186.40***
1	Replant (30%)	$ 76,332.52	30%	1	1.0000	$ 22,899.75		
1	Invasive Species Control (100%)	$ 33,165.00	100%	1	1.0000	$ 33,165.00		
1	Invasive Species Mobilization	$ 100.00	100%	1	1.0000	$ 100.00		
1	Access Road Maintenance	$ 47.00	100%	1	1.0000	$ 47.00		
1	Property Taxes	$ 1,105.50	100%	1	1.0000	$ 1,105.50		
1	***Subtotal***					***$ 57,317.25***	**44.7%**	***Initial Success***
2	Monitoring/ Inspection	$ 790.00	100%	5	1.0000	$ 3,950.00		***$57,317.25***
2	Replant (10%)	$ 76,332.52	10%	1	1.0000	$ 7,633.25		**$70,869.14**
2	Invasive Species Control (25%)	$ 33,165.00	25%	1	1.0000	$ 8,291.25		
2	Invasive Species Mobilization	$ 100.00	100%	1	1.0000	$ 100.00		
2	Access Road Maintenance	$ 47.00	100%	1	1.0000	$ 47.00		
2	Property Taxes	$ 1,105.50	100%	1	1.0000	$ 1,105.50		
2	***Subtotal***					***$ 21,127.00***	**16.5%**	
3	Monitoring/ Inspection	$ 790.00	100%	5	1.0000	$ 3,950.00		
3	Invasive Species Control (20%)	$ 33,165.00	20%	1	1.0000	$ 6,633.00		
3	Invasive Species Mobilization	$ 100.00	100%	1	1.0000	$ 100.00		
3	Access Road Maintenance	$ 47.00	100%	1	1.0000	$ 47.00		
3	Property Taxes	$ 1,105.50	100%	1	1.0000	$ 1,105.50		
3	***Subtotal***					***$ 11,835.50***	**9.2%**	
4	Monitoring/ Inspection	$ 790.00	100%	5	1.0000	$ 3,950.00		
4	Invasive Species Control (10%)	$ 33,165.00	10%	1	1.0000	$ 3,316.50		
4	Invasive Species Mobilization	$ 100.00	100%	1	1.0000	$ 100.00		
4	Access Road Maintenance	$ 47.00	100%	1	1.0000	$ 47.00		
4	Property Taxes	$ 1,105.50	100%	1	1.0000	$ 1,105.50		
4	***Subtotal***					***$ 8,519.00***	**6.6%**	
5	Monitoring/ Inspection	$ 790.00	100%	5	1.0000	$ 3,950.00		
5	Invasive Species Control (5%)	$ 33,165.00	5%	1	1.0000	$ 1,658.25		
5	Invasive Species Mobilization	$ 100.00	100%	1	1.0000	$ 100.00		
5	Wildlife Opening and Access Road Maintenance	$ 47.00	100%	1	1.0000	$ 47.00		
5	Property Taxes	$ 1,105.50	100%	1	1.0000	$ 1,105.50		
5	***Subtotal***					***$ 6,860.75***	**5.4%**	***Interim Success***
6	Access Road Maintenance	$ 47.00	100%	1	1.0000	$ 47.00		***$48,342.25***
6	Property Taxes	$ 1,105.50	100%	1	1.0000	$ 1,105.50		**$22,526.89**
6	***Subtotal***					***$ 1,152.50***	**0.9%**	
7	Access Road Maintenance	$ 47.00	100%	1	1.0000	$ 47.00		
7	Property Taxes	$ 1,105.50	100%	1	1.0000	$ 1,105.50		
7	***Subtotal***					***$ 1,152.50***	**0.9%**	
8	Access Road Maintenance	$ 47.00	100%	1	1.0000	$ 47.00		
8	Property Taxes	$ 1,105.50	100%	1	1.0000	$ 1,105.50		
8	***Subtotal***					***$ 1,152.50***	**0.9%**	
9	Access Road Maintenance	$ 47.00	100%	1	1.0000	$ 47.00		
9	Property Taxes	$ 1,105.50	100%	1	1.0000	$ 1,105.50		
9	***Subtotal***					***$ 1,152.50***	**0.9%**	
10	Monitoring/ Inspection	$ 790.00	100%	5	1.0249	$ 4,048.36		
10	Invasive Species Control (2%)	$ 33,165.00	2%	1	1.0249	$ 679.82		
10	Invasive Species Mobilization	$ 100.00	100%	1	1.0249	$ 102.49		
10	Access Road Maintenance	$ 47.00	100%	1	1.0249	$ 48.17		
10	Property Taxes	$ 1,105.50	100%	1	1.0249	$ 1,133.03		
10	Boundary Maintenance	$ 570.00	100%	1	1.0249	$ 584.19		
10	***Subtotal with Year 10 Adjusted Inflation (2.49%)***					***$ 6,596.05***	**5.1%**	
11	Access Road Maintenance	$ 47.00	100%	1	1.0249	$ 48.17		
11	Property Taxes	$ 1,105.50	100%	1	1.0249	$ 1,133.03		
11	***Subtotal with Year 11 Adjusted Inflation (2.49%)***					***$ 1,181.20***	**0.9%**	
12	Access Road Maintenance	$ 47.00	100%	1	1.0249	$ 48.17		
12	Property Taxes	$ 1,105.50	100%	1	1.0249	$ 1,133.03		
12	***Subtotal with Year 12 Adjusted Inflation (2.49%)***					***$ 1,181.20***	**0.9%**	
13	Access Road Maintenance	$ 47.00	100%	1	1.0249	$ 48.17		
13	Property Taxes	$ 1,105.50	100%	1	1.0249	$ 1,133.03		
13	***Subtotal with Year 13 Adjusted Inflation (2.49%)***					***$ 1,181.20***	**0.9%**	
14	Access Road Maintenance	$ 47.00	100%	1	1.0249	$ 48.17		
14	Property Taxes	$ 1,105.50	100%	1	1.0249	$ 1,133.03		
14	***Subtotal with Year 14 Adjusted Inflation (2.49%)***					***$ 1,181.20***	**0.9%**	
15	Monitoring/ Inspection	$ 790.00	100%	5	1.0249	$ 4,048.36		
15	Invasive Species Control (2%)	$ 33,165.00	2%	1	1.0249	$ 679.82		
15	Invasive Species Mobilization	$ 100.00	100%	1	1.0249	$ 102.49		
15	Access Road Maintenance	$ 47.00	100%	1	1.0249	$ 48.17		
15	Property Taxes	$ 1,105.50	100%	1	1.0249	$ 1,133.03		
15	Boundary Maintenance	$ 570.00	100%	1	1.0249	$ 584.19		
15	***Subtotal with Year 15 Adjusted Inflation (2.49%)***					***$ 6,596.05***	**5.1%**	***Long-Term Success***
								$22,526.89
								$0.00
	Total					**$ 128,186.40**	**100.0%**	
	Total Per Credit Acre					**$ 352.35**		

Years 10-15 adjusted using an inflation rate of 2.49%. This is the average Consumer Price Index (CPI) from 1983-2012.

Estimated Long-Term Annualized Cost Summary
Bayou Fisher Mitigation Bank, Amendment One

Item	Units	Unit Values	Price Per Unit	Unit Percent	Cost	Years	Annualized Cost
Boundary Maintenance (10-year event)	Miles	3.8	$ 150.00	100.0%	$ 570.00	10	$ 57.00
0.5% Invasive Species Control (annual event)	Acre	368.5	$ 90.00	0.5%	$ 165.83	1	$ 165.83
Invasive Species Control Mobilization (annual event)	Fixed	Fixed	Fixed	NA	$ 100.00	1	$ 100.00
Access Road Maintenance	Acre	4.7	$ 10.00	100.0%	$ 47.00	1	$ 47.00
Inspection (annual event)	Day	5.0	$ 790.00	20.0%	$ 790.00	1	$ 790.00
Taxes (annual event)	Acre	368.5	$ 3.00	100.0%	$ 1,105.50	1	$ 1,105.50
Average Annual Cost (Starting at Year 16)							**$ 2,265.33**

Estimated Long-Term Costs and Projected Account Activity for
Bayou Fisher Mitigation Bank, Amendment One
Year 16 to 50

Year	Item	Total Cost	Inflationary Adjustment[1]	Beginning Balance[2]	Ending Balance[3]
15	Annual Cost	$ -	$ -	$ 91,730.00	$ 91,730.00
16	Annual Cost	$ 2,265.33	$ 2,321.73	$ 95,059.80	$ 92,738.07
17	Annual Cost	$ 2,265.33	$ 2,379.54	$ 96,104.46	$ 93,724.92
18	Annual Cost	$ 2,265.33	$ 2,438.79	$ 97,127.13	$ 94,688.34
19	Annual Cost	$ 2,265.33	$ 2,499.52	$ 98,125.52	$ 95,626.01
20	Annual Cost	$ 2,265.33	$ 2,561.76	$ 99,097.23	$ 96,535.47
21	Annual Cost	$ 2,265.33	$ 2,625.55	$ 100,039.71	$ 97,414.16
22	Annual Cost	$ 2,265.33	$ 2,690.92	$ 100,950.30	$ 98,259.38
23	Annual Cost	$ 2,265.33	$ 2,757.93	$ 101,826.19	$ 99,068.27
24	Annual Cost	$ 2,265.33	$ 2,826.60	$ 102,664.45	$ 99,837.85
25	Annual Cost	$ 2,265.33	$ 2,896.98	$ 103,461.96	$ 100,564.98
26	Annual Cost	$ 2,265.33	$ 2,969.11	$ 104,215.49	$ 101,246.38
27	Annual Cost	$ 2,265.33	$ 3,043.05	$ 104,921.62	$ 101,878.58
28	Annual Cost	$ 2,265.33	$ 3,118.82	$ 105,576.77	$ 102,457.95
29	Annual Cost	$ 2,265.33	$ 3,196.48	$ 106,177.17	$ 102,980.70
30	Annual Cost	$ 2,265.33	$ 3,276.07	$ 106,718.90	$ 103,442.83
31	Annual Cost	$ 2,265.33	$ 3,357.64	$ 107,197.80	$ 103,840.16
32	Annual Cost	$ 2,265.33	$ 3,441.25	$ 107,609.56	$ 104,168.31
33	Annual Cost	$ 2,265.33	$ 3,526.93	$ 107,949.62	$ 104,422.69
34	Annual Cost	$ 2,265.33	$ 3,614.76	$ 108,213.23	$ 104,598.48
35	Annual Cost	$ 2,265.33	$ 3,704.76	$ 108,395.40	$ 104,690.64
36	Annual Cost	$ 2,265.33	$ 3,797.01	$ 108,490.91	$ 104,693.90
37	Annual Cost	$ 2,265.33	$ 3,891.56	$ 108,494.29	$ 104,602.73
38	Annual Cost	$ 2,265.33	$ 3,988.46	$ 108,399.81	$ 104,411.35
39	Annual Cost	$ 2,265.33	$ 4,087.77	$ 108,201.48	$ 104,113.71
40	Annual Cost	$ 2,265.33	$ 4,189.55	$ 107,893.04	$ 103,703.49
41	Annual Cost	$ 2,265.33	$ 4,293.87	$ 107,467.92	$ 103,174.05
42	Annual Cost	$ 2,265.33	$ 4,400.79	$ 106,919.27	$ 102,518.48
43	Annual Cost	$ 2,265.33	$ 4,510.37	$ 106,239.90	$ 101,729.52
44	Annual Cost	$ 2,265.33	$ 4,622.68	$ 105,422.31	$ 100,799.63
45	Annual Cost	$ 2,265.33	$ 4,737.78	$ 104,458.65	$ 99,720.87
46	Annual Cost	$ 2,265.33	$ 4,855.76	$ 103,340.74	$ 98,484.98
47	Annual Cost	$ 2,265.33	$ 4,976.66	$ 102,059.99	$ 97,083.32
48	Annual Cost	$ 2,265.33	$ 5,100.58	$ 100,607.45	$ 95,506.86
49	Annual Cost	$ 2,265.33	$ 5,227.59	$ 98,973.76	$ 93,746.18
50	Annual Cost	$ 2,265.33	$ 5,357.75	$ 97,149.16	$ 91,791.41
	Total	**$ 79,286.38**	**$ 127,286.37**		
	Average	**$ 2,265.33**	**$ 3,636.75**		

Inflation	0.0249
Interest	0.0363
Per Credit Acre	$ 252.14
70%	$ 360.21

1. Adjusted using an inflation rate of 2.49%. This is the average Consumer Price Index (CPI) from 1983-2012.

2. Adjusted using an interest rate of 3.63% applied to the previous years' ending balance. The rate of return is based on a 30-year Treasury Bond rate as of August 13, 2013

3. The ending balance is the begining balance less the estimated, inflated cost.

ATTACHMENT MWP C

MCM

Version_2012_MVN_MCM_11_1

Table 2B: Proposed Restoration/Enhancement Mitigation Worksheet

Mitigation Project Name: Bayou Fisher Mitigation Bank Amendment One MVN-2013-02343

Mitigation Project Size (Acres) Include Wetlands, Non-wetlands and Buffer Areas:	363.8
Mitigation Project HUC:	08080101
Mitigation Project Basin:	Atchafalaya
Impacted HUC:	08080101
Mitigation Project in the same basin as the impact:	Yes
Proximity Factor:	1.0

	Factors	Area 1	Area 2	Area 3	Area 4	Area 5
Net Improvement	Mitigation Type	Re-establishment I	Re-establishment I	(Select an Option)	(Select an Option)	(Select an Option)
	Maintenance/ Management Requirement	Self-Sustaining	Self-Sustaining	(Select an Option)	(Select an Option)	(Select an Option)
	Control	Conservation Servitude	Conservation Servitu	(Select an Option)	(Select an Option)	(Select an Option)
	Temporal Lag	Over 20	Over 20	(Select an Option)	(Select an Option)	(Select an Option)
	Credit Schedule	Schedule 1	Schedule 1	(Select an Option)	(Select an Option)	(Select an Option)
	Kind	(Select an Option)	(Select an Option)	(Select an Option)	(Select an Option)	(Select an Option)
	Location	(Select an Option)	(Select an Option)	(Select an Option)	(Select an Option)	(Select an Option)
Negative Influences on the mitigation site	Commercial/Residential Development	No Impact	No Impact	No Impact	No Impact	No Impact
	Oil & gas activities	No Impact	No Impact	No Impact	No Impact	No Impact
	Size	Category 1	Category 1	Category 1	Category 1	Category 1
	Corridors	No Impact	No Impact	No Impact	No Impact	No Impact

Version_2012_MVN_MCM_11_1

Table 2B: Proposed Restoration/Enhancement Mitigation Worksheet

Mitigation Project Name: Bayou Fisher Mitigation Bank Amendment One MVN-2013-02343

	Factors	Area 1	Area 2	Area 3	Area 4	Area 5
Net Improvement	Mitigation Type * Maintenance/ Management Requirement	4.0	4.0	0.0	0.0	0.0
	Control	0.4	0.4	0.0	0.0	0.0
	Temporal Lag	-0.3	-0.3	0.0	0.0	0.0
	Credit Schedule	0.4	0.4	0.0	0.0	0.0
	Kind	0.0	0.0	0.0	0.0	0.0
	Location	0.0	0.0	0.0	0.0	0.0
	Subtotal	4.5	4.5	0.0	0.0	0.0
Negative Influences on the mitigation site	Commercial/Residential Development	0.0	0.0	0.0	0.0	0.0
	Oil & gas activities	0.0	0.0	0.0	0.0	0.0
	Size	0.0	0.0	0.0	0.0	0.0
	Utility Corridors	0.0	0.0	0.0	0.0	0.0
	Sum of negative impacts	0.0	0.0	0.0	0.0	0.0
	Sum of m Factors	4.5	4.5	0.0	0.0	0.0
	Size of Area (Acres)	243.7	120.1	0.0	0.0	0.0
	M × A=	1096.7	540.5	0.0	0.0	0.0
Acreage required for Permittee-responsible Mitigation project using required credits calculated in Adverse impact Worksheet.		0.0	0.0	0.0	0.0	0.0

Total Restoration/Enhancement Credits = ∑ (M × A) =	1637.1
Total Available including buffers	1637.1
Average Credit Per Acre =	4.5

	Buffers	Non-hydric inclusions	Hydric Inclusions
Credits per acre (M)	0.2	0.4	0.6
Size in Acres (A)		0.0	0.0
M × A =	0.0	0.0	0.0
Credits added to bank =			0.0

Version_2012_MVN_MCM_11_1

MVN Permit Number: 0

Table 1: Adverse Impacts Worksheet

General Comments

Factor	Comment
Priority Category	
Existing Habitat Condition	
Existing Hydrologic Condition	
Duration	
Dominant Impact	
Cumulative Impact	

Mitgation Project Name: Bayou Fisher Mitigation Bank Amendment One MVN-2013-02343

Table 2B: Proposed Restoration/Enhancement Mitigation Worksheet

General Comments

Area 1: BLH Re-establishment; Area 2: SWAMP Re-establishment

	Factor	Comment
Net Improvement	Mitigation Type	All restored from PC croplands; peremiter/interior roads reduced to grade
	Maintenance/ Management Requirement	No active structures or management required
	Control	Perpetual conservation servitude
	Temporal Lag	All forested so >20 years
	Credit Schedule	Bank so advanced credit
	Kind	Undeterminded
	Location	Undeterminded
Negative Influences on the mitigation site	Commercial/Residential Development	<1% development (99% forest, agriculture, conservation servitude)
	Oil & gas activities	No active or historic wells
	Size	Adjacent to 500-acre existing Bayou Fisher Mitigation Bank conservation servitude
	Corridors	No pipelines or other utility rights-of-way; no public roads

ATTACHMENT D

ACCEPTANCE LETTER

US Army Corps of Engineers
Regulatory Branch
PO Box 60267
New Orleans, LA 70160
ATTN: *{CORPS PROJECT MANAGER}*

Gentlemen:

{MITIGATION BANK NAME} has made arrangements with *{PERMITTEE'S NAME}* to purchase *{NUMBER OF ACRES OR CREDITS}* *{ACRES OR CREDITS}* of *{HABITAT TYPE}* for unavoidable impacts associated with work authorized by the Department of the Army permit number *{MVN-XXXX-XXXXX-XX}*. The *{MITIGATION BANK NAME}* assumes the responsibility for the permittee's compensatory mitigation requirements (i.e., to implement, assure performance, and provide long-term management of the compensatory mitigation project) in accordance with provisions of the Mitigation Banking Instrument governing this bank.

{CLOSING}

{NAME}
{TITLE}