

Prospectus for the
Lucky Hit Wetlands Mitigation Bank
Assumption Parish, Louisiana

January 2012
Rev July 2012
Rev August 2012
Rev September 2012

SPONSOR

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Plattenville, LA 70393

AGENT

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CONTRACT OPERATOR

Joey Robichaux

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I. RESTORATION SITE OBJECTIVES

Lucky Hit Wetlands Mitigation Bank is pleased to present the following prospectus and site restoration plan for the **Lucky Hit Wetlands Mitigation Bank** (Bank) to the IRT and USACE New Orleans District. We are requesting that this Bank be evaluated and approved as **Lucky Hit Wetlands Mitigation Bank**. The purpose of site restoration activities will be the re-establishment of bottomland hardwood wetland communities to provide compensation for unavoidable wetland impacts authorized by the issuance of the Department of the Army (DA) permits under Section 404 of the Clean Water Act and Sections 9 and 10 of the Rivers and Harbors Act of 1899. The specific objectives of the bank are the following:

- Restoration of self-sustaining, bottomland hardwood, floodplain and wetland hydrology to the Bank
- Re-establishment of self-sustaining, bottomland hardwood and wet hardwood communities appropriate to the area and to the hydrologic regimes located on-site
- Improved fish and wildlife habitat functions and values to adjacent, forested private lands and to the greater Barataria watershed through the re-establishment and rehabilitation of the bottomland hardwood ecological system on-site.
- Improvement in local water quality discharges from the Bank into local waterways and into the Forty Arpent Canal which drains into tributaries of the Barataria Basin.
- Increased flood storage

II. SITE LOCATION AND REGIONAL SIGNIFICANCE

The proposed **Lucky Hit Wetlands Mitigation Bank** is located in Assumption Parish, Louisiana in Section 122, 128, T12S-R14E (Figure 1). The Bank totals approximately 125.7± acres. The Bank is located approximately 2.84 miles northeast of Paincourtville, Louisiana as depicted in Figure 1. Figure 2 depicts the location of the proposed bank near the intersection of LA Hwy Spur 70 and LA Hwy 70 in Assumption Parish.

The contributing drainage area of the Bank includes HUC Cataloging Unit 08090301 (Figure 4). The HUC area is from Donaldsonville in the north, west of the Mississippi River, east of Bayou Lafourche and south to the Gulf of Mexico.

(Figure 3 presently) the (existing) Bank contains a total of 125.7± acres of proposed bottomland hardwood forest. Figure 3 depicts the outline of the proposed bank on an aerial photograph. The proposed bank will have a total of 125.7± acres of bottom land hardwoods.

Based on the historical aerial photography research and surrounding forested habitat, the Bank most likely supported wet bottomland hardwood community types, as defined in the *Natural*

Lucky Hit Wetlands Mitigation Bank

Communities of Louisiana and electronically published by the LDWF and Louisiana Natural Heritage Program (LNHP). These imperiled bottomland hardwood community types are associations that occur within bottomland hardwood ecosystems on hydric soils on poorly drained areas, depressions and small drainages (slashes), and are generally not affected by overbank flooding. Wet hardwood are typically found on clays and silt loam soil series, which are soil characteristics similar to that of the soils found on the Bank area.

The increased activity for development in the watershed (HUC 08090301) is resulting in the need for high quality mitigation within the watershed to offset unavoidable impacts to several bottomland hardwood wetland community types. This Site will be submitted under mitigation bank agreement and, will provide for the restoration and enhancement of bottomland hardwood species being replanted within the proposed bank area.

Restoration of this site specifically will provide for 1) the restoration of impacted habitat types within the HUC 08090301 watershed, 2) high-quality habitat for wetland dependent wildlife and wildlife requiring mature forested ecosystems, 3) improved water quality through closure and backfilling of existing agricultural ditches, 4) increased flood storage and treatment via overland flow of non-point source runoff through the bank area, and finally, 5) improved wildlife dispersion and genetic diversity through a corridor and connectivity functions resulting from the interconnection of an existing large (89.6±acres) bottomland forested wetland habitat owned by the Catholic Church located south and adjacent to the proposed bank and within the HUC 08090381 watershed area.

III. PROPOSED SERVICE AREA

The proposed service area will cover all areas located within Watershed Unit 08090301 as depicted in Figure 4.

Beyond the area as herein described the purchase of mitigation from the proposed bank will be determined by the CEMVN on a case by case basis.

IV. BACKGROUND AND CURRENT SITE CONDITIONS

A. Baseline Ecological Condition

The area was cleared of forested wetlands and developed with drainage ditches to facilitate the growth of sugar cane and soybeans in the area. Small lateral ditch exist and drain to larger ditches located to the east, north and south on the site.

B. Soils

The soils located within the proposed site are Cancianne Silt Loam, Cancianne Silty Clay Loam, Schriever Clay Loam and Schriever Clay. **Figure 5** depicts a detailed plat of the soil types within the proposed bank area.

C. Surrounding Land Use

The surrounding land use consist of 31.85± acres of commercial property located along LA Hwy Spur 70 and LA Hwy 70, cultivated crop land and roads consisting of 1,217± acres, residential area consisting of 43.49± acres and existing forested woodlands consisting of 210.64± acres. Figure 6 depicts an aerial photo layout of the land used within one-half mile of the proposed site.

D. Existing Drainage

The existing storm drainage flows to small field ditches and culverts then into larger ditches which transports stormwater into the Baker Canal located to the north of the proposed site. Figure 8 depicts the existing drainage flow. Culverts exist in the drainage system to allow for passage by sugar cane farmers and to allow for equipment to cross ditches during maintenance.

Hydrology of the site consists of rainfall, overland flow from adjacent properties. The NRCS characterizes this area as receiving a mean annual precipitation ranging from 45-62 inches. The NRCS has classified the site as prior converted (p.c.), see attached Figure 12. Wetland hydrology persists in areas claimed as jurisdictional wetlands. The confirmed presence of hydric indicators indicates that the site was historically saturated. Historic crop management with major and minor ditching effectively drained and removed wetland hydrology from the majority of the site.

There are no known, existing hydrologic disturbances either on or adjacent to the site over which the Sponsor will not have control. All other on-site hydrologic conveyances are fully owned and controlled by the landowner. The existing Baker Canal is controlled by the Assumption Parish Police Jury.

Based on the information available, the flat topography of the area, and the soil types the site historically supported bottomland hardwood and wetlands. Figure 12 depicts a plat from NRCS which depicts the p.c. classification of the agency. Depressional areas within the Site likely maintained wetter bottomland hardwood community types, with longer hydroperiod durations prior to ditching. Additionally, standing water on the site historically persisted longer after rainfall events, and slowly dispersed from the south and north across the site as overland flow to the north. The site ditching now quickly conveys surface water from the Site, which decreases the amount of time standing water persists on the site before being discharged as channelized flow. Additionally, ditching effectively intercepts water that would normally find its way into the existing natural depressional areas. The proposed hydrologic restoration plan will effectively restore historic hydrologic conditions by backfilling excavated ditches and drainage swales that currently

exist in the improved pasture areas located in the central and southern areas of the site. Backfilling these agricultural drainage swales and ditches will impede the direct conveyance of surface water and increase the duration of standing water on-site. The hydrologic restoration will also increase water storage and hydroperiod durations within on-site depressions and restore localized watershed to the depressions currently drained by the ditching. The net effect will be increased hydroperiod durations able to support the bottomland hardwood community types and associations proposed for restoration.

E. Existing Vegetative Communities

Non jurisdictional wet pasture areas of the Site are primarily dominated by soybeans and sugar cane. A large jurisdictional wetland area adjacent to the site (89.6 acres) is dominated by green ash (*Fraxinus pennsylvanica*), black willow (*Salix nigra*), red maple (*Acer rubrum*), American elm (*Ulmus Americana*), blackgum (*Nyssa Sylvatica*), water oak (*Quercus nigra*), and hackberry (*Celtis Laevigata*) observed as common sub-dominants and associates.

F. Existing Wetlands

Approximately 89.6 acres of existing forested wetlands occur adjacent to the site (southwest) of the site. The initial on-site delineation was performed by T. Baker Smith, LLC, on behalf of the Sponsor, submitted the ASES wetland delineation report and supporting maps to the USACE New Orleans District (NOD) on June 23, 2011. A final wetland delineation map was submitted to the NOD for final approval on January 24, 2011. The approved USACE jurisdictional for the Bank is provided in Figure 11.

V. MITIGATION ACTIVITIES AND CONCEPTUAL RESTORATION PLAN

A. Wetland Mitigation Types

The mitigation types proposed will be reestablishment of bottomland hardwoods species. Specified as restoration mitigation, the sponsor proposed to do the following:

1. Reestablish bottomland hardwood forest 125 acres

The sponsor proposes to reestablish hardwood species by replanting these species and developing hydrological activities to support the wetland area (See Figure 9). Re-habitation of forested woodlands will be accomplished through both vegetative plantings and hydrologic restoration activities as present below. The sponsor proposed to reestablish 125 acres of bottomland hardwood forest total acreage to be used to determine mitigation credit is estimated at 125 acres.

B. Hydrologic Restoration

The current man-made ditch system is designed to facilitate drainage of surface water off the site. The large drainage ditch that currently exist on the center of the site will be back filled. The

proposed relocation of existing drainage ditches is depicted in Figures 2, 3, and 10. The existing ditches will be filled with on-site soil material so as to allow for replanting of bottomland hardwoods in the area (See Figure 10). The proposed new ditch relocations and 6' culvert installation will allow for adjacent agriculture fields, residential and commercial property to drain into the existing Banker Canal (See Figures 2, 3, and 10).

Backfilling man-made ditches and agricultural swales which exist on site will eliminate draining or runoff through these conveyances off site, these also will allow sheet flow more evenly across the site and resulting in recreation of historic overland flow conditions. By backfilling, the amount and force of the water currently discharging from these ditches will be dispersed over a broad area of the site. This will result in increased water storage and retain in depressional areas with slower movement of water across the site by over land flow, thereby increasing retention of water on-site for longer periods and providing greater biological treatment of runoff from site. Areas of ditch backfill and proposed new ditches and a 6' culvert to be installed are depicted in Figures 2, 3, and 10. The installation of a new 6' culvert as depicted is necessary to provide for off-site storm water to drain to the Baker Canal and allow for equipment passage to adjacent agricultural fields and to allow equipment passage to maintain the Baker Canal.

Ditch backfill will be accomplished using excavation material from the relocation of the existing drainage ditch, using stock piled on site material around the man-made existing basin and any existing material present along ditches located on site. Should these materials not be sufficient to accomplish the proposed ditch backfilling, additional material for backfilling will be scraped from upland areas as needed. Backfilled ditch areas will be planted with native hardwood species. Backfilling excavated ditches and drainage swales in the improved upland and wetland areas in combination with the relocation and filling of the drainage canals will effectively restore the historic hydrologic conditions of overland flow with depressional water storage.

These measures will facilitate hydrologic restoration of wetlands on the proposed Bank area. Excavated ditches from the major and minor drains occur within the property boundary, no adverse off-site flooding effects are anticipated.

C. Vegetative Restoration

The site will be planted at a minimum density of 538 trees per acre with a mixture of bottomland hardwood. Table 1 lists hard mast and soft mast canopy and sub-canopy species chosen for the reforestation efforts. The species that are proposed for planting are typical of bottomland hardwood forest community types. Table 2 lists the dominant species expected from both planting and natural recruitment from nearby hardwood sources. Planting stock will be 2-3 foot bare root seedlings planted on 9 foot centers.

Lucky Hit Wetlands Mitigation Bank

Major species' associations typical of bottomland hardwood floodplain forest community types and the topographic positions they occupy in the landscape are the basis for the planting zones depicted in Figure 12 and outlined in Tables 1 and 2. The topographic positions of the various proposed planted species is intended to mimic the natural landscape, composition and spatial distribution associated with each species' physiology as well as their saturation/inundation preference for this region. Sound guidelines for restoring bottomland hardwood forests authored by Allen et al. (2001) were published through the United States Geological Survey technical report series, and were recently revised in 2004. This guidance provides a wealth of direction for determining species placement per topographic zone relative to their flood/saturation tolerance, and provides descriptions for major species' associations typical of bottomland hardwood wetlands. Inundation tolerance and topographic position are the basis for the planting zones depicted.

Determination of species placement within the planting zones was also based on community descriptions for bottomland hardwood floodplain forest from the Natural Communities of Louisiana electronically published by the LDWF and LNHP. Species associations, as depicted in the planting zones outlined in Figure 11 are taken from Table 14.1 of Allen et al. (2001) A Guide to Bottomland Hardwood Restoration and from the community descriptions published by LDWF and LNHP referenced above. However, certain species that can occur over a wider range of hydrologic conditions, or which have a greater range of inundation and/or saturation tolerance may be planted within several topographic or hydrologic zones to establish greater diversity throughout the extent of the restoration area.

Table 1: Species of Bottomland Hardwoods to be Planted

Hard Mast Species	Soft Mast Species
Water Oak (<i>Quercus nigra</i>) (30%)	Nuttall Oak (<i>Quercus texana</i>) (30%)
Bitter Pecan (<i>Carya aquatica</i>) (20%)	Drummond Red Maple (<i>Acer rubrum</i> var. <i>drummondii</i>) or Red Maple (<i>Acer rubrum</i>) (10%)
American Elm (<i>Ulmus Americana</i>) (10%)	

Note: This is a list of suggested species based on availability and a survey of adjacent forested areas.

Lucky Hit Wetlands Mitigation Bank

Table 2: Selected Species by Planting Zone for the Lucky Hit Woodlands Mitigation Bank

Species Association/Planting Zone'	Dominant Species	# of Trees	Acres
Nuttall Oak (30%)	Nuttall Oak	20,288	37.7
Water Oak (30%)	Water Oak	20,288	37.7
Bitter Pecan (20%)	Bitter Pecan	13,525	25.2
Red Maple (10%)	Red Maple	6,763	12.6
American Elm (10%)	American Elm	6,763	12.5
'Species association as defined in Figure 11	Total Plants Planted Initially	67,627	
	Total Acres Planted		125.7

Site preparation will consist of mowing/burning, disking or sub soiling should the Site exhibit heavily compacted soils. Site preparation will take place no more than 6 months prior to planting during the December 15th to March 15th planting season. Trees will be placed in the appropriate planting zone, and hand planted in the planting zones identified in Figure 11. Removal of Chinese tallow and privet or other noxious nuisance and exotic species that could compromise the restoration effort will be done prior to planting, and the Site will be maintained to a nuisance and exotic species level of less than 5 % coverage. Ditch relocation and backfilling will be completed prior to the planting effort.

D Monitoring Plan

MONITORING REPORTS:

1) The monitoring report shall:

- a.** Identify seedling survivorship and colonization by volunteer mid-story and overstory species. Results of vegetation survey including visual estimates of percentage (%) overall cover and % cover by each vegetation layer, species diversity, % exotic vegetation in each vegetation layer, total % “facultative” and total % “upland” species in each vegetation layer, survival rate of planted vegetation, an estimate of natural revegetation, and a qualitative estimate of plant vigor as measured by evidence of reproduction.
- b.** Discuss the general health of the planted trees.
- c.** Describe the vegetative communities developing within and the overall condition of the site.
- d.** Describe wildlife usage and herbivory/browse problems, if present.
- e.** Summarize the condition of the Restoration Area.
- f.** Identify maintenance activities performed.
- g.** Document measures to control exotic/invasive vegetation colonization/establishment.

2) Schedule of monitoring reports:

- a.** Vegetative monitoring and reports shall be completed in the spring (when new growth makes identification practicable) of years 1, 3, 5, 10, 15, and prior to and following the first thinning operation.

- b. If Year 1 success criteria is obtained, but all performance criteria have not been met in the 5th year, a monitoring report shall be required for each consecutive year until two annual sequential reports indicate that all criteria have been successfully satisfied (i.e., that corrective actions were successful).
- c. Reports discussing measures to control exotic/invasive vegetation shall be provided annually until such time as all Initial Success Criteria and Interim Success Criteria identified in Sections VII.A and VII.B have been met and verified by the IRT. The annual reports should document items such as degree of exotic/invasive vegetation, method of treatment/control, machinery and/or chemical treatments utilized, timing of treatments/work, effectiveness of previous treatments/work, etc.
- d. Reports will be submitted by December 31st of each monitoring year.
- e. Monitoring reports shall be provided to CEMVN. Attachment B provides a recommended format for monitoring reports.

E Maintenance Plan

Semi-annual surveying and treatment of nuisance/exotic species and undesirable, competing undergrowth will be performed by means of mechanical and/or chemical control. Additionally, low-intensity prescribed fires prior to planting may be conducted to control competing nuisance/exotic herbaceous and woody vegetation and provide an immediate nutrient source for planted seedlings. Inspection of all permanent water control structures or ditch blocks for erosion or instability will also be performed during each annual monitoring event, and repair/stabilization will be conducted as necessary.

Should evidence of destructive deer, feral pig, beaver and/or nutria foraging activity be observed, wire fencing or protection devices may be installed around tree seedlings in an effort to control damage to seedlings from foraging, rubbing or rooting.

Should drought conditions result within the first year of planting, temporary irrigation measures will be taken to assist in the establishment and proper rooting of planted seedlings.

Lucky Hit Wetlands Mitigation Bank will not be responsible for replacement of seedlings or trees when mortality is due to an Act of God or other force majeure event that occurs after the initial, permitted success criteria are met. In the event of such mortality,

VI. FUNCTIONAL EVALUATION OF ECOLOGICAL BENEFIT

We propose to perform a Wetland Value Assessment (WVA) and/or Modified Charleston Method (MCM) assessment to quantify the expected ecological functional gain that will be provided by the mitigation activities proposed. The WVA assessment will be performed according to guidance published January 10, 1994 by the Louisiana Department of Natural

Resources. The MCM analysis will be performed according to guidance published by the NOD entitled Modified Charleston Method Guidebook for the Use of the Excel Workbook. The assessment will score the entire mitigation acreage for all parameters except for the kind/location scenarios, thereby giving a baseline credits/acre for each type of mitigation provided.

VII. OWNERSHIP AND CONTROL

A. Sponsor Qualifications and Contact Information

The subject property is owned fee simple by **Lucky Hit Wetlands Mitigation Bank**. The principal members of **Lucky Hit Wetlands Mitigation Bank** are Leo D. Sternfelds and Ronnie Foret. All project construction, monitoring and short term management will be conducted by Mr. Joey Robichaux with Assumption Land Mitigation Bank (ALMB). Mr. Robichaux has managed and operated the ALMB since 1999, having 12 years of experience to ALMB. The contact information for the sponsor, landowner and agent is provided below.

Sponsor: Leo D. Sternfelds and Ronnie Foret
Lucky Hit Wetlands Mitigation Bank, LLC
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Plattenville, LA 70393
Leo.Sternfelds@ajg.com
rforet@rrcoa.com
Phone: 985-369-7272

Agent: Horace Thibodaux, Sr. Env. Project Manager
T. Baker Smith, LLC
P.O. Box 2266
Houma, LA 70361
Horace.Thibodaux@tbsmith.com
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Landowner: Leo D. Sternfelds and Ronnie Foret
Lucky Hit Wetlands Mitigation Bank, LLC
224A LA Highway 70 Spur
Plattenville, LA 70393
Leo.Sternfelds@ajg.com
rforet@rrcoa.com
Phone: 985-369-7272

B. Long-Term Protection

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

C. Financial Assurances

Lucky Hit Wetlands Mitigation Bank is proposing to use a Letter to Credit form of financial assurance and maintenance for the short term construction (1 to 15 years) and proposes to use a long term escrow account for the long term financial requirements.

D. Contingency Measures

Problems which could occur at the site include but not limited to:

Problems which could occur	Correction of problems
Seedlings & trees die off	Replant seedling & trees that do not grow
Evasive species growth	Control evasive species manually & by herbicides if necessary
Hydrologic barrier erosion	Inspect periodically for hydrologic failures and repair said findings as soon as possible

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

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

VIII. LONG TERM MANAGEMENT

The landowner **Lucky Hit Wetlands Mitigation Bank**, will be the initial designated Long-Term

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

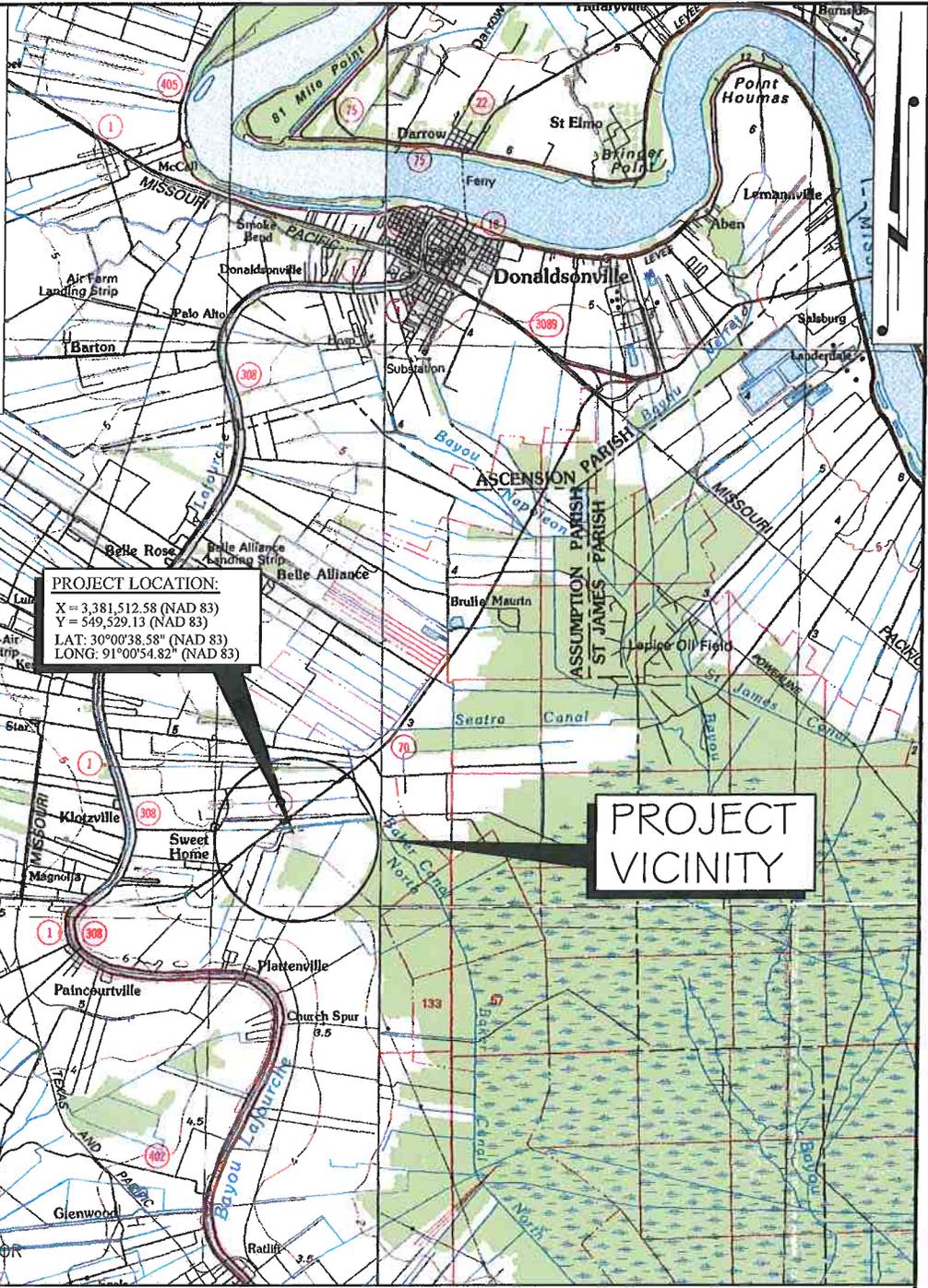
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Lucky Hit Wetlands Mitigation Bank

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

NO.	DATE	REVISION

VICINITY MAP

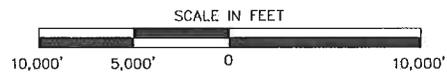
LUCKY HIT WETLANDS MITIGATION BANK, L.L.C.

MITIGATION BANK
 LOCATED IN SECTIONS 122 AND 128, T12S-R14E
 ASSUMPTION PARISH,
 LOUISIANA

Figure

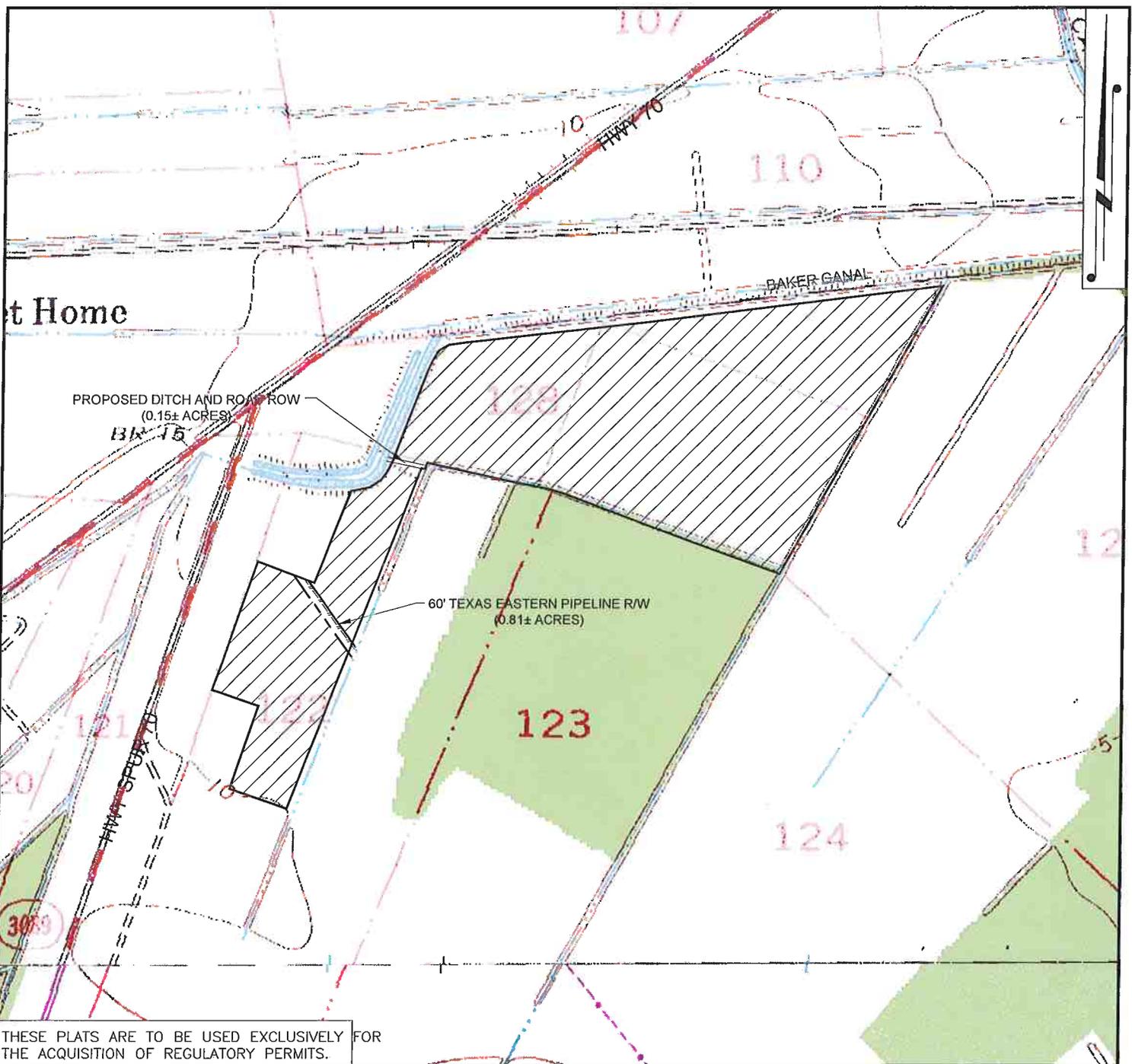
1

Location Map



SHEET	1	OF	18
DRAWN BY:	LMB		
APPROVED BY:	JMM		
SCALE:	1" = 10,000'		
DATE:	6/16/2010		
JOB NUMBER:	2011.0267		

FILE:



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

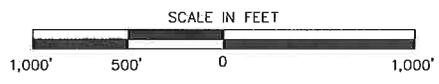
NO.	DATE	REVISION

USGS QUAD MAP

LUCKY HIT WETLANDS MITIGATION BANK, L.L.C.

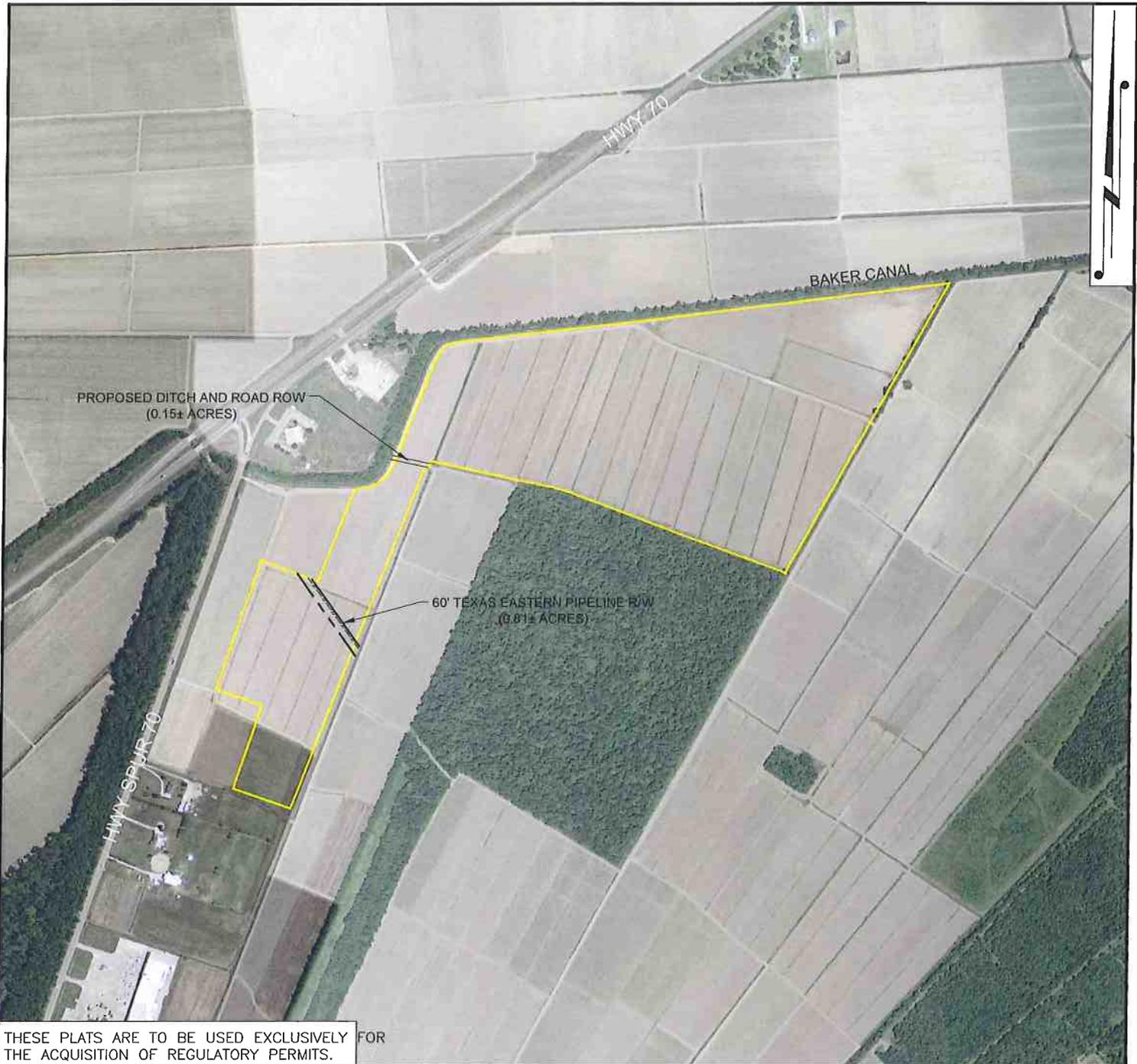
MITIGATION BANK
 LOCATED IN SECTIONS 122 AND 128, T12S-R14E
 ASSUMPTION PARISH,
 LOUISIANA

Figure
2
 Quad Photograph



SHEET	2	OF	18
DRAWN BY:	LMB		
APPROVED BY:	HJT		
SCALE:	1" = 1,000'		
DATE:			
JOB NUMBER:	2011.0267		

FILE:



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

NO.	DATE	REVISION

2010 AERIAL MAP

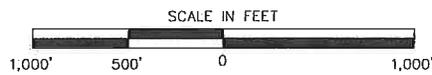
LUCKY HIT WETLANDS MITIGATION BANK, L.L.C.

MITIGATION BANK
 LOCATED IN SECTIONS 122 AND 128, T12S-R14E
 ASSUMPTION PARISH,
 LOUISIANA

Figure

3

Aerial Photograph



SHEET	3	OF	18
DRAWN BY:	LMB		
APPROVED BY:	HJT		
SCALE:	1" = 1,000'		
DATE:			
JOB NUMBER:	2011.0267		

FILE:

08070204

ST JOHN THE BAPTIST

ST JAMES

PROJECT LOCATION:
X = 3,382,249.45 (NAD 83)
Y = 549,401.55 (NAD 83)
LAT: 30°00'37.29" (NAD 83)
LONG: 91°00'46.45" (NAD 83)



ASSUMPTION

ST MARTIN

SAKAMILLI LAKE

MARY

LAFORCHE

08090302

TERREBONNE

LAKE BOEDREAU

CAILLON LAKE

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

NO.	DATE	REVISION

SERVICE AREA MAP

LUCKY HIT WETLANDS MITIGATION BANK, L.L.C.

MITIGATION BANK
LOCATED IN SECTIONS 122 AND 128, T12S-R14E
ASSUMPTION PARISH,
LOUISIANA

Figure

4

Service Area



T. BAKER SMITH
PROFESSIONAL CONSULTANTS SINCE 1943
(985) 868-1050 www.tbsmith.com

SHEET	4	OF	18
DRAWN BY:	LMB		
APPROVED BY:	HJT		
SCALE:	NTS		
DATE:			
JOB NUMBER:	2011.0267		

FILE:



91° 1' 34" 30° 0' 54" 91° 0' 17" 30° 0' 50"

91° 1' 35" 30° 0' 7" 91° 0' 18" 30° 0' 5"

Map Scale: 1:9,830 if printed on A size (8.5" x 11") sheet.



Figure 5 Soil Map



MAP INFORMATION

Map Scale: 1:9,830 if printed on A size (8.5" x 11") sheet.
 The soil surveys that comprise your AOI were mapped at 1:24,000.
 Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
 Coordinate System: UTM Zone 15N NAD83

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

Soil Survey Area: Assumption Parish, Louisiana
 Survey Area Data: Version 4, Apr 12, 2007

Date(s) aerial images were photographed: 1998

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

MAP LEGEND

- | | |
|--|---|
|  Area of Interest (AOI) |  Very Stony Spot |
|  Soils |  Wet Spot |
|  Area of Interest (AOI) |  Other |
|  Soil Map Units | Special Line Features |
|  Blowout |  Gully |
|  Borrow Pit |  Short Steep Slope |
|  Clay Spot |  Other |
|  Closed Depression | Political Features |
|  Gravel Pit |  Cities |
|  Gravelly Spot | Water Features |
|  Landfill |  Oceans |
|  Lava Flow |  Streams and Canals |
|  Marsh or swamp | Transportation |
|  Mine or Quarry |  Rails |
|  Miscellaneous Water |  Interstate Highways |
|  Perennial Water |  US Routes |
|  Rock Outcrop |  Major Roads |
|  Saline Spot |  Local Roads |
|  Sandy Spot | |
|  Severely Eroded Spot | |
|  Sinkhole | |
|  Slide or Slip | |
|  Sodic Spot | |
|  Spoil Area | |
|  Stony Spot | |

SHEET 6 OF 18

Figure
5
 Soil Map

SHEET 6 OF 18

Map Unit Legend

Assumption Parish, Louisiana (LA007)			
Map Unit Symbol	Map Unit Name	Acres In AOI	Percent of AOI
Cc	Cancienne silt loam	11.5	5.7%
Cm	Cancienne silty clay loam	8.4	4.1%
Sa	Schriever silty clay loam	13.1	6.5%
Sh	Schriever clay	169.0	83.7%
Totals for Area of Interest		202.0	100.0%

Map Unit Symbol	Map Unit Acres	Soil Classification
Cc	3.87± ACRES	Non Hydric
Cm	4.26± ACRES	Non Hydric
Sh	117.49± ACRES	Hydric
Sh	(DITCH 0.15± ACRES)	
Sh	(ROW 0.81± ACRES)	
TOTAL SOIL AREA = 126.58± ACRES		

Figure

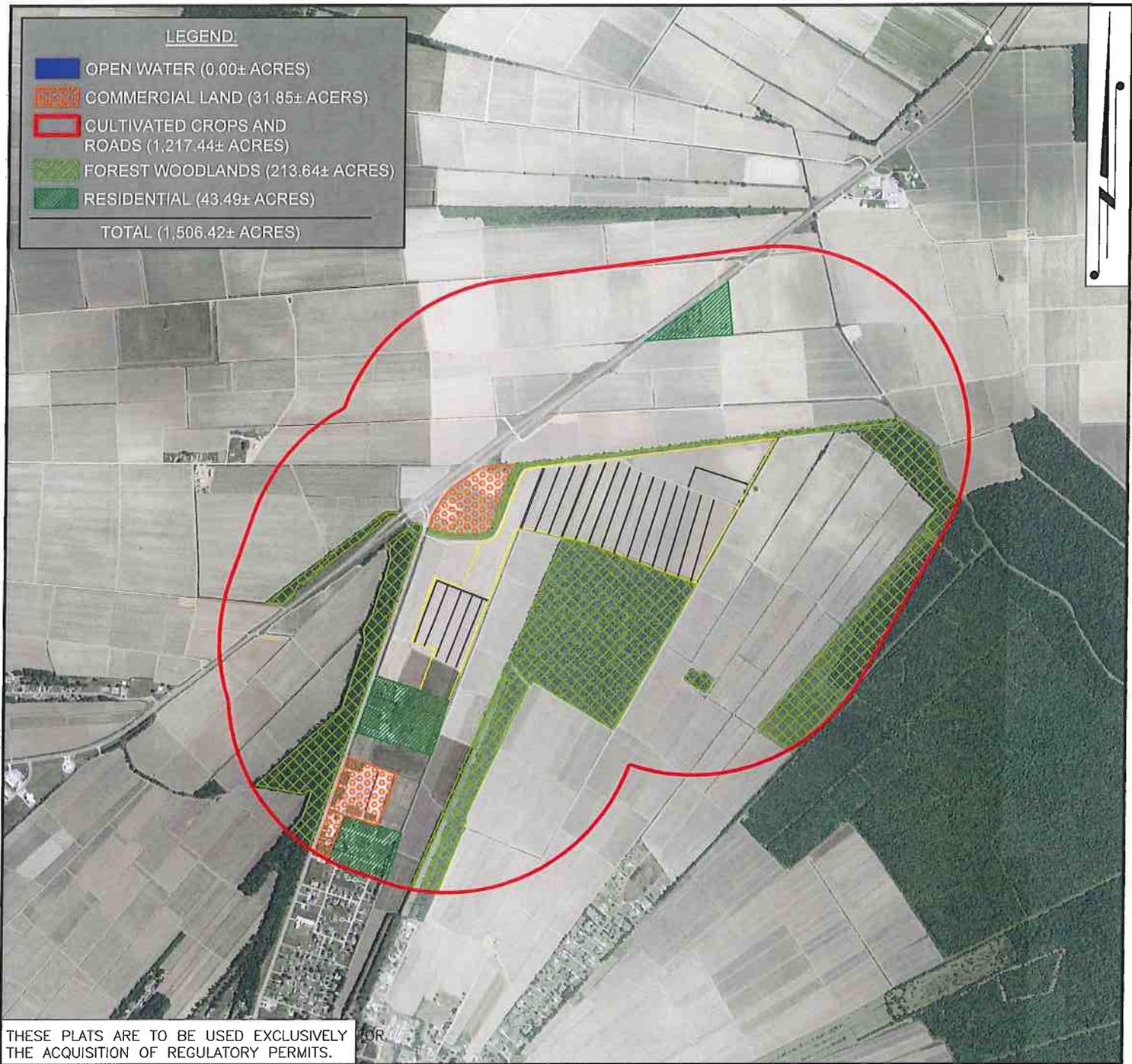
5

Soil Map

SHEET 7 OF 18

LEGEND:

- OPEN WATER (0.00± ACRES)
 - COMMERCIAL LAND (31.85± ACERS)
 - CULTIVATED CROPS AND ROADS (1,217.44± ACRES)
 - FOREST WOODLANDS (213.64± ACRES)
 - RESIDENTIAL (43.49± ACRES)
- TOTAL (1,506.42± ACRES)



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

NO.	DATE	REVISION

2010 AERIAL MAP LAND USE 1/2 MILE RADIUS

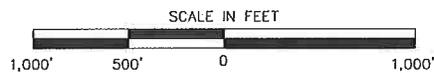
LUCKY HIT WETLANDS MITIGATION BANK, L.L.C.

MITIGATION BANK
 LOCATED IN SECTIONS 122 AND 128, T12S-R14E
 ASSUMPTION PARISH,
 LOUISIANA

Figure

6

Surrounding Land Use

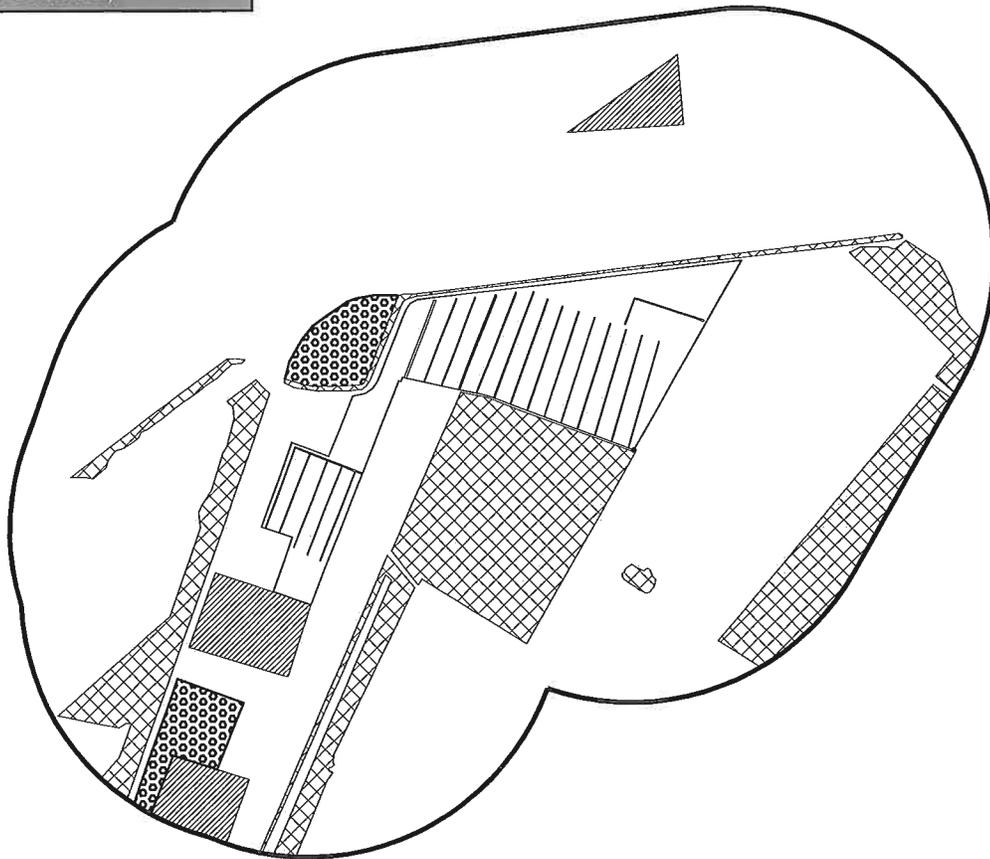


SHEET	8	OF	18
DRAWN BY:	LMB		
APPROVED BY:	HJT		
SCALE:	1" = 1,000'		
DATE:			
JOB NUMBER:	2011.0267		

FILE:

LEGEND:

-  OPEN WATER (0.00± ACRES)
 -  COMMERCIAL LAND (31.85± ACERS)
 -  CULTIVATED CROPS AND ROADS (1,217.72± ACRES)
 -  FOREST WOODLANDS (213.36± ACRES)
 -  RESIDENTIAL (43.49± ACRES)
- TOTAL (1,506.42± ACRES)



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

NO.	DATE	REVISION

LAND USE 1/2 MILE RADIUS

LUCKY HIT WETLANDS MITIGATION BANK, L.L.C.

MITIGATION BANK
 LOCATED IN SECTIONS 122 AND 128, T12S-R14E
 ASSUMPTION PARISH,
 LOUISIANA

Figure

6

Surrounding Land Use



SHEET	9	OF	18
DRAWN BY:	LMB		
APPROVED BY:	HJT		
SCALE:	1" = 1,000'		
DATE:			
JOB NUMBER:	2011.0267		

FILE:



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

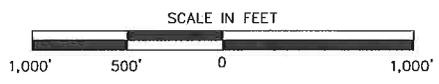
NO.	DATE	REVISION

EXISTING DRAINAGE MAP

LUCKY HIT WETLANDS MITIGATION BANK, L.L.C.

MITIGATION BANK
 LOCATED IN SECTIONS 122 AND 128, T12S-R14E
 ASSUMPTION PARISH,
 LOUISIANA

Figure
8
 Aerial Photograph

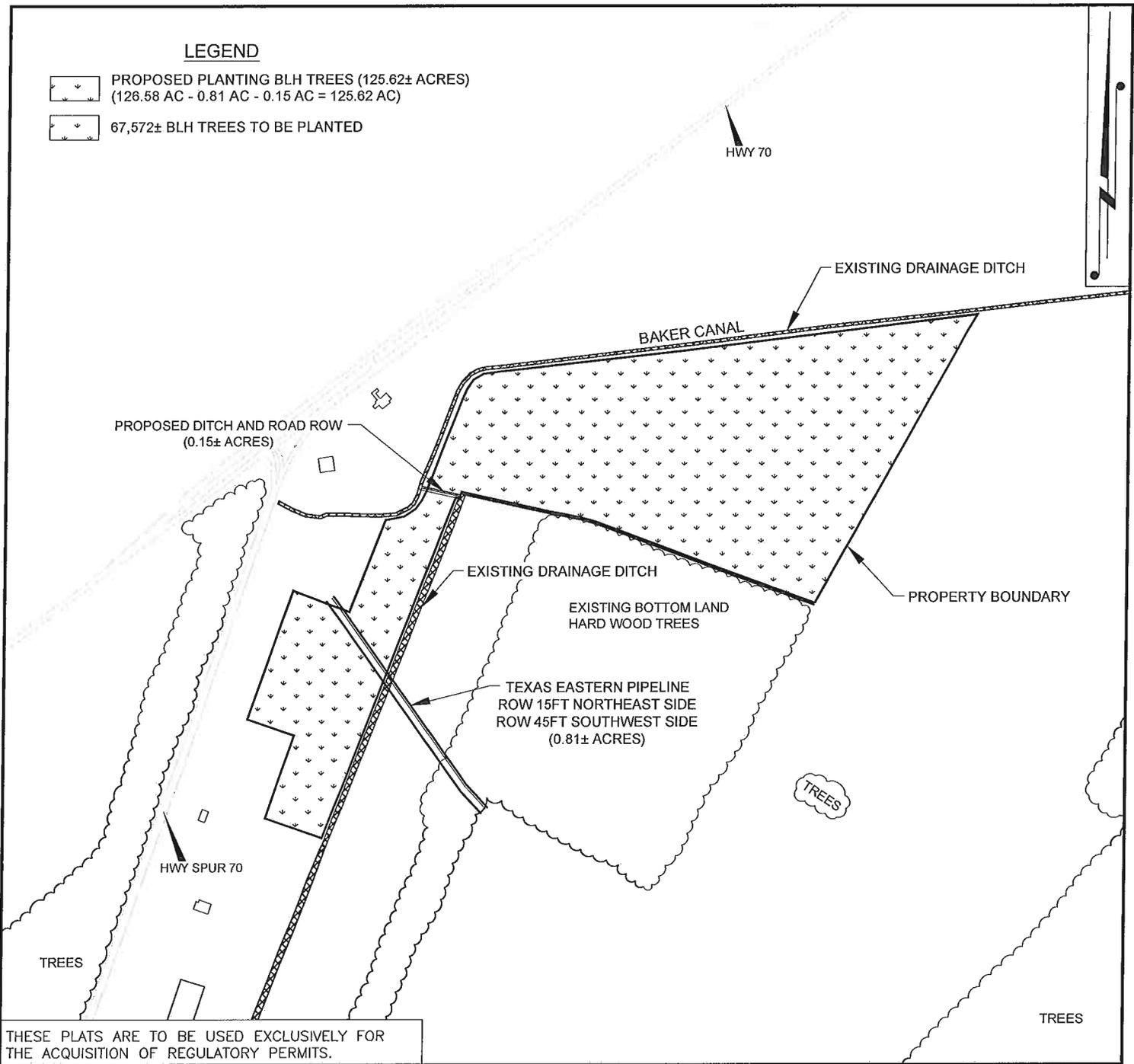


SHEET	11	OF	18
DRAWN BY:	LMB		
APPROVED BY:	HJT		
SCALE:	1" = 1,000'		
DATE:			
JOB NUMBER:	2011.0267		

FILE:

LEGEND

-  PROPOSED PLANTING BLH TREES (125.62± ACRES)
(126.58 AC - 0.81 AC - 0.15 AC = 125.62 AC)
-  67,572± BLH TREES TO BE PLANTED



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

NO.	DATE	REVISION

MITIGATION TYPES ACRES

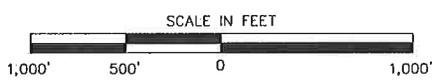
LUCKY HIT WETLANDS MITIGATION BANK, L.L.C.

MITIGATION BANK
 LOCATED IN SECTION 122 AND 128, T12S-R14E
 ASSUMPTION PARISH, LOUISIANA

Figure

9

Mitigation Types Acres



SHEET	12	OF	18
DRAWN BY:	LMB		
APPROVED BY:	HJT		
SCALE:	1" = 1,000'		
DATE:			
JOB NUMBER:	2011.0267		

FILE:

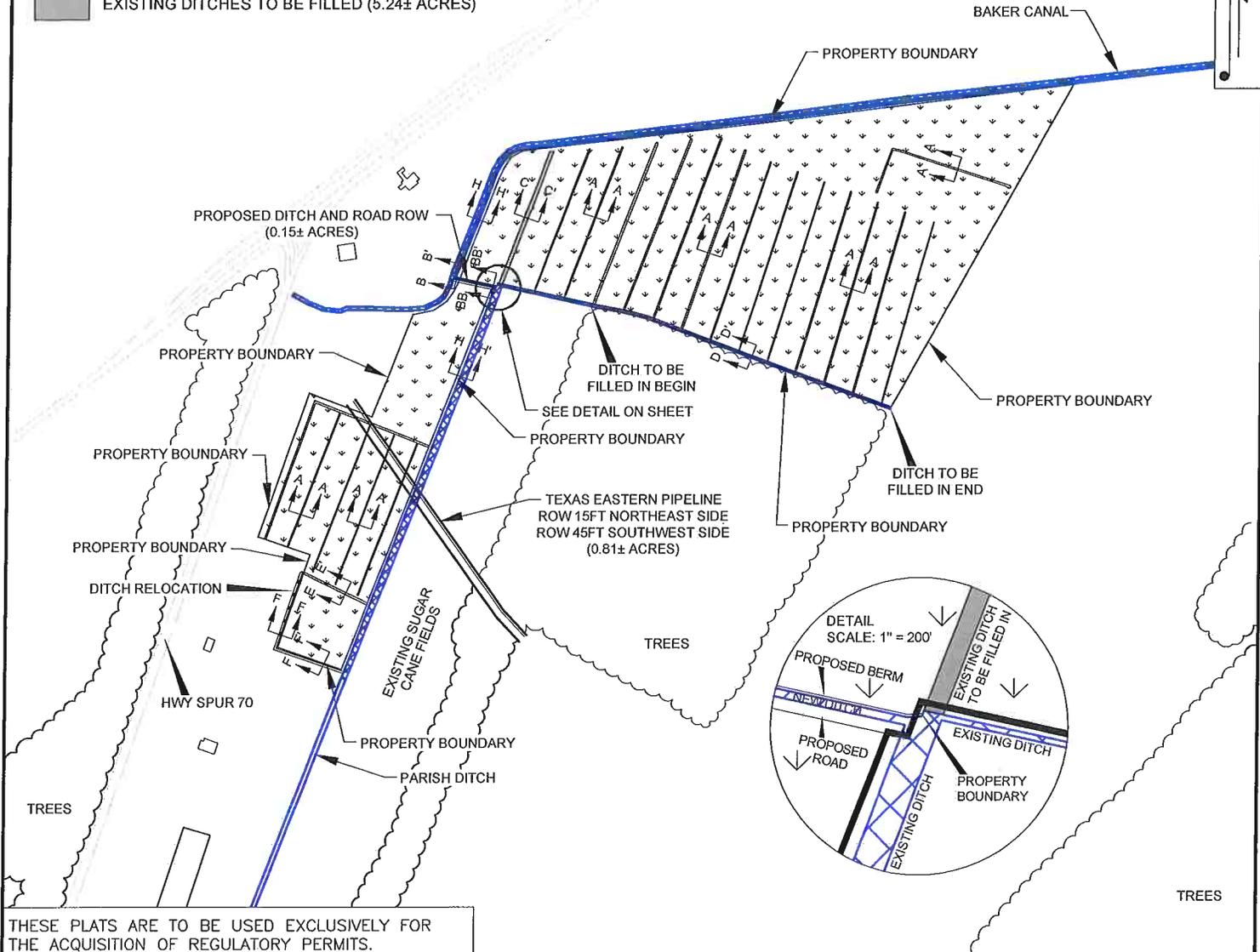
LEGEND

 PROPOSED PLANTING BLH TREES (125.62± ACRES)
(126.58 AC - 0.81 AC - 0.15 AC = 125.62 AC)

 NEW DITCHES (0.06± ACRES)

TOTAL ACRES = 126.58± ACRES

 EXISTING DITCHES TO BE FILLED (5.24± ACRES)



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

NO.	DATE	REVISION

HYDROLOGICAL RESTORATION

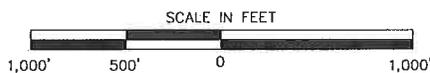
LUCKY HIT WETLANDS MITIGATION BANK, L.L.C.

MITIGATION BANK
LOCATED IN SECTION 122 AND 128, T12S-R14E
ASSUMPTION PARISH, LOUISIANA

Figure

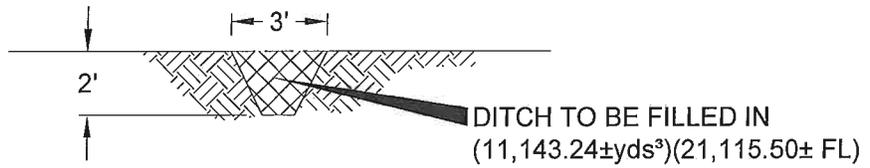
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Hydrologic Restoration
Planting Zone

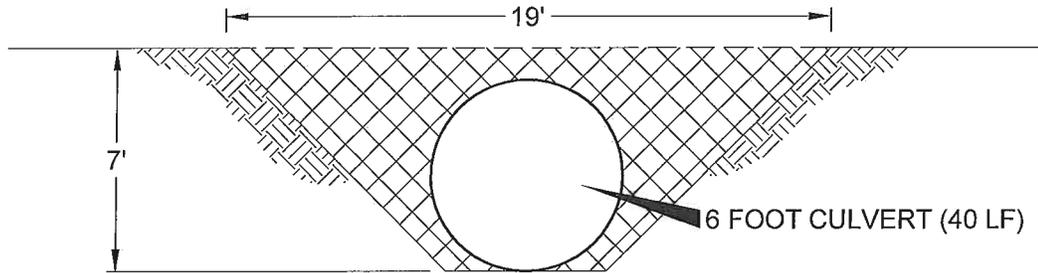


SHEET	13	OF	18
DRAWN BY:	LMB		
APPROVED BY:	JMM		
SCALE:	1" = 1,000'		
DATE:	6/16/2010		
JOB NUMBER:	2011.0267		

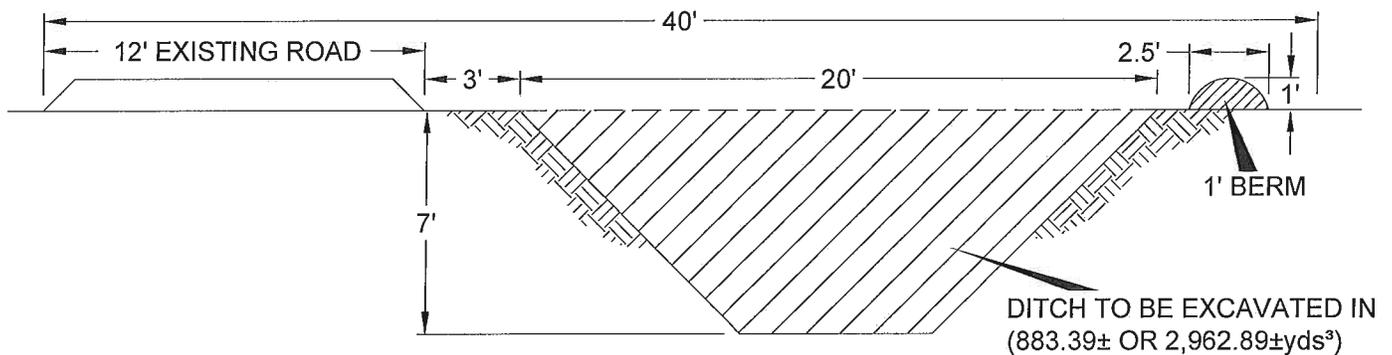
FILE:



TYPICAL FIELD DITCH CROSS SECTION A-A



CULVERT CROSS SECTION B-B'



CROSS SECTION BB-BB'

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NO.	DATE	REVISION

HYDROLOGICAL RESTORATION

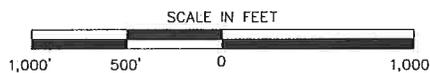
LUCKY HIT WETLANDS MITIGATION BANK, L.L.C.

MITIGATION BANK
 LOCATED IN SECTION 122 AND 128, T12S-R14E
 ASSUMPTION PARISH, LOUISIANA

Figure

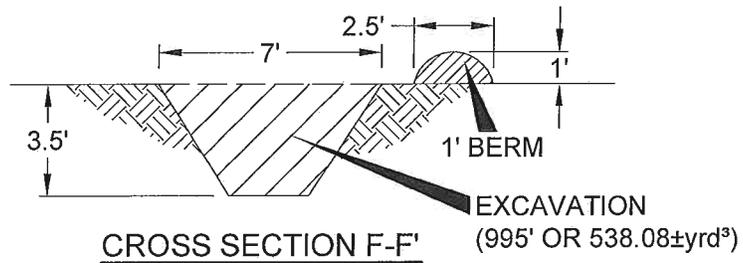
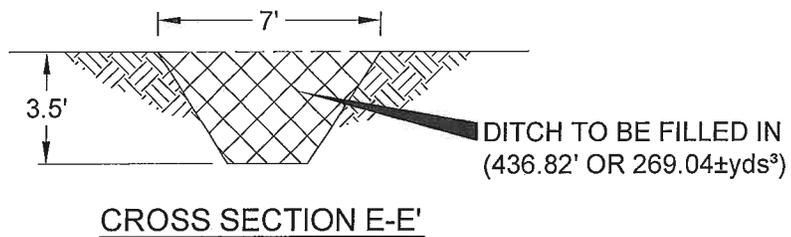
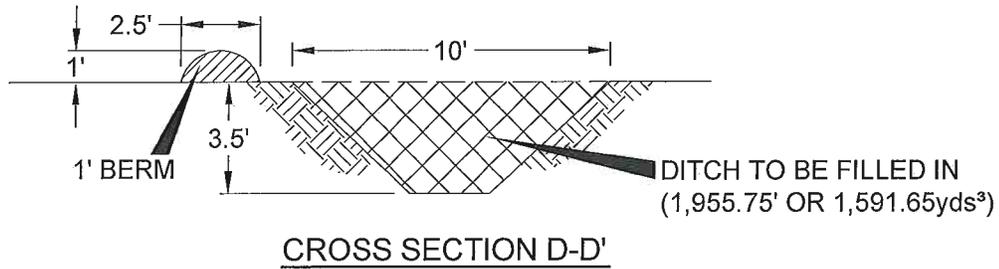
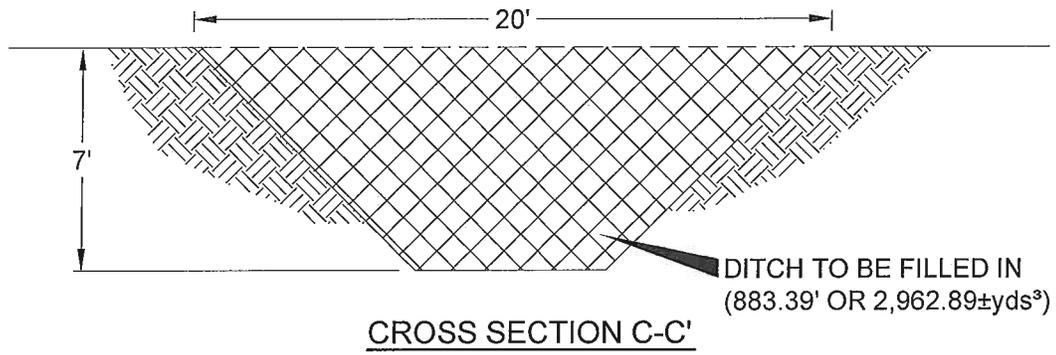
10

Hydrologic Restoration
 Planting Zone



FILE:

SHEET	14	OF	18
DRAWN BY:	LMB		
APPROVED BY:	JMM		
SCALE:	1" = 1,000'		
DATE:	6/16/2010		
JOB NUMBER:	2011.0267		



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

NO.	DATE	REVISION

HYDROLOGICAL RESTORATION

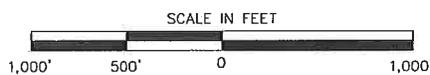
LUCKY HIT WETLAND MITIGATION BANK, L.L.C.

MITIGATION BANK
 LOCATED IN SECTION 122 AND 128, T12S-R14E
 ASSUMPTION PARISH, LOUISIANA

Figure

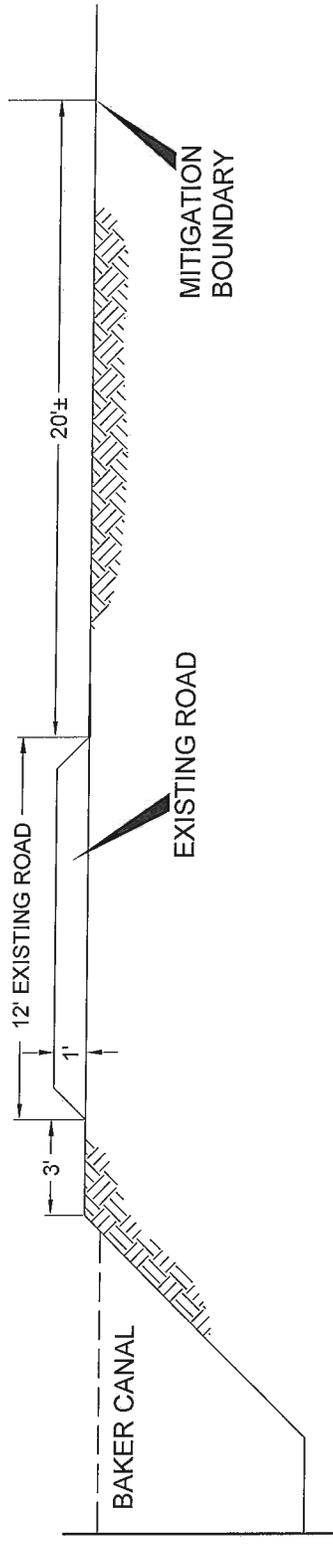
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Hydrologic Restoration
Planting Zone

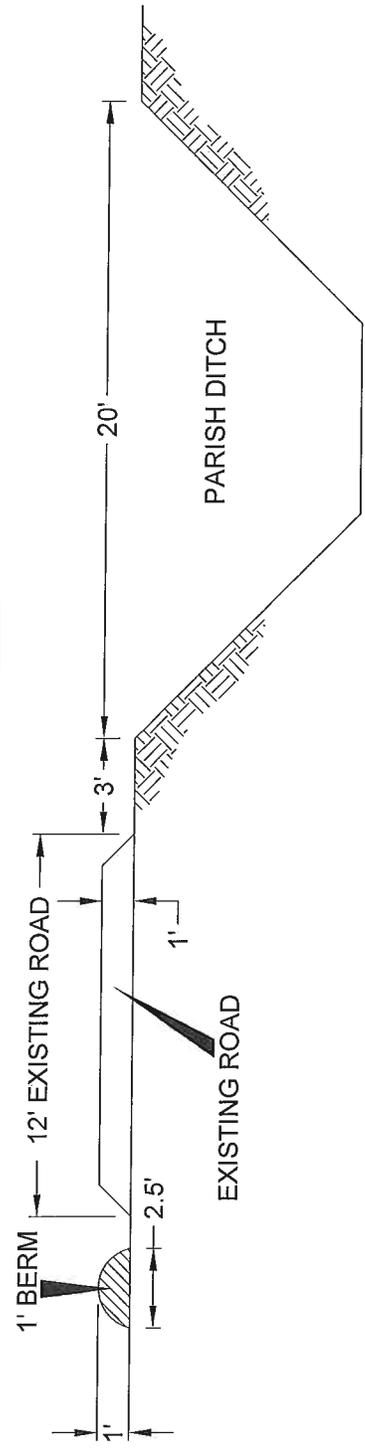


SHEET	15	OF	18
DRAWN BY:	LMB		
APPROVED BY:	JMM		
SCALE:	1" = 1,000'		
DATE:	6/16/2010		
JOB NUMBER:	2011.0267		

FILE:



CROSS SECTION G-G'



CROSS SECTION H-H'

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

NO.	DATE
-----	------

REVISION

HYDROLOGICAL RESTORATION

LUCKY HIT WETLAND MITIGATION BANK, L.L.C.

MITIGATION BANK
 LOCATED IN SECTION 122 AND 128, T12S-R14E
 ASSUMPTION PARISH, LOUISIANA

Figure

10

Hydrologic Restoration
 Planting Zone

NOTES:

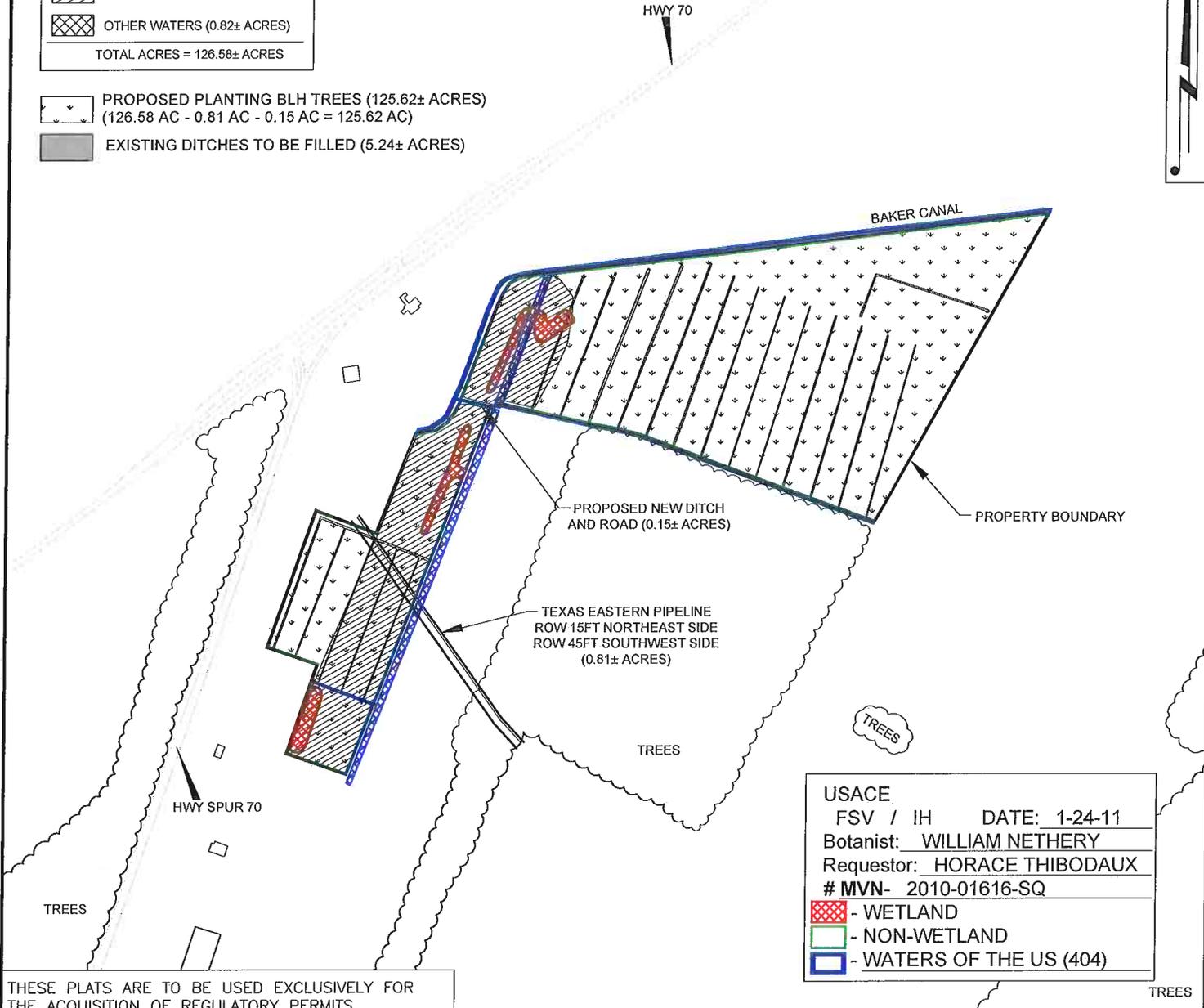


SHEET	16	OF	18
DRAWN BY:	LMB		
APPROVED BY:	HJT		
SCALE:	1" = 6'		
DATE:	7/23/2012		
JOB NUMBER:	2011.0267		

FILE:

LEGEND	
	NON-WETLANDS (95.60± ACRES)
	WETLANDS (30.16± ACRES)
	OTHER WATERS (0.82± ACRES)
TOTAL ACRES = 126.58± ACRES	

- PROPOSED PLANTING BLH TREES (125.62± ACRES)
(126.58 AC - 0.81 AC - 0.15 AC = 125.62 AC)
- EXISTING DITCHES TO BE FILLED (5.24± ACRES)



USACE
 FSV / IH DATE: 1-24-11
 Botanist: WILLIAM NETHERY
 Requestor: HORACE THIBODAUX
 # MVN- 2010-01616-SQ

- WETLAND
 - NON-WETLAND
 - WATERS OF THE US (404)

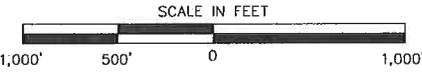
THESE PLATS ARE TO BE USED EXCLUSIVELY FOR THE ACQUISITION OF REGULATORY PERMITS.

NO.	DATE	REVISION

USACOE WETLAND JD

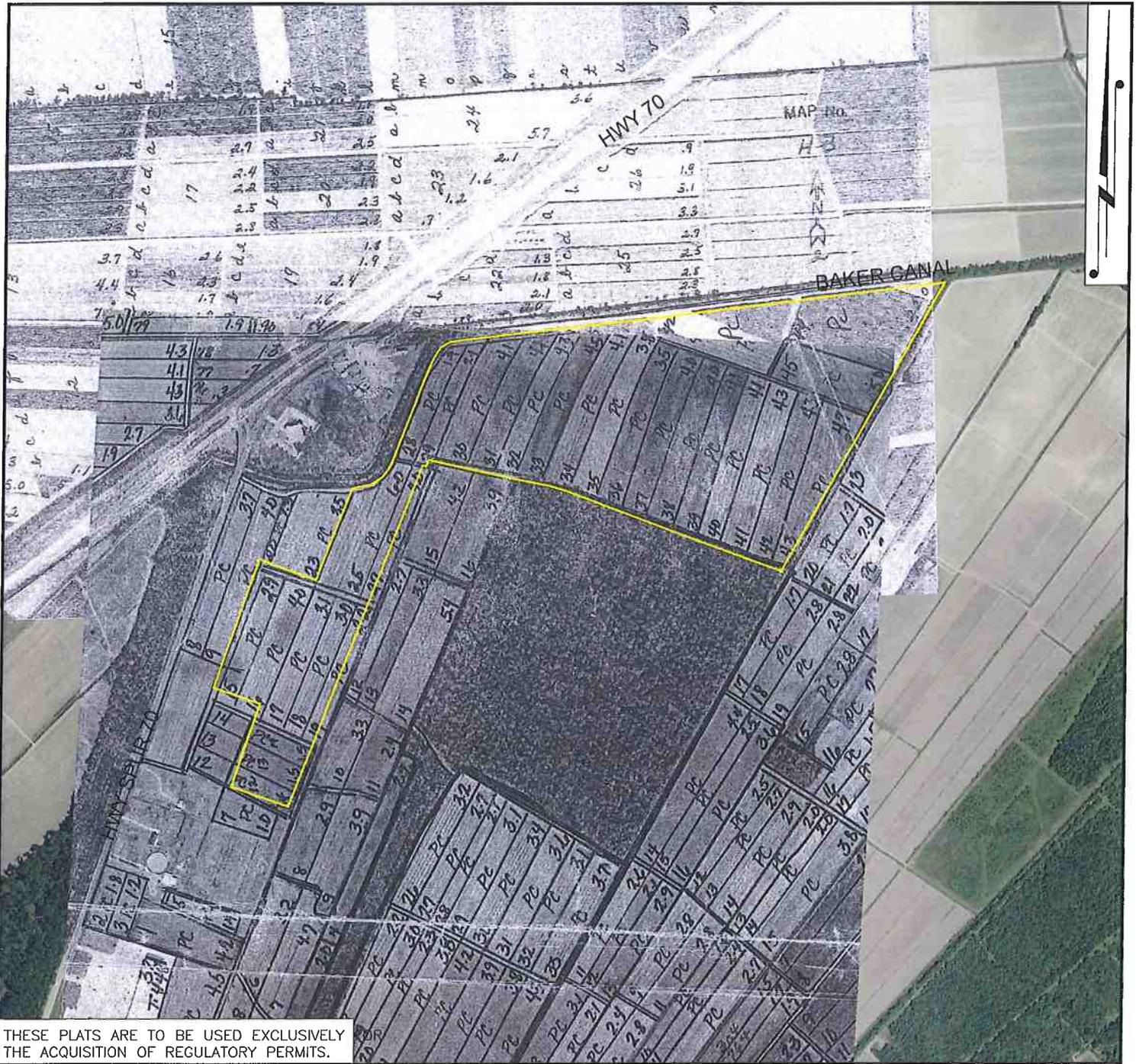
LUCKY HIT WETLANDS MITIGATION BANK, L.L.C.
 MITIGATION BANK
 LOCATED IN SECTION 122 AND 128, T12S-R14E
 ASSUMPTION PARISH, LOUISIANA

Figure
11
 Hydrologic Restoration
 Planting Zone



SHEET	17	OF	18
DRAWN BY:	LMB		
APPROVED BY:	JMM		
SCALE:	1" = 1,000'		
DATE:	6/16/2010		
JOB NUMBER:	2011.0267		

FILE:



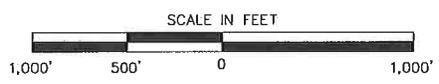
THESE PLATS ARE TO BE USED EXCLUSIVELY
THE ACQUISITION OF REGULATORY PERMITS.

NO.	DATE	REVISION
-----	------	----------

AERIAL MAP

LUCKY HIT WETLANDS MITIGATION BANK, L.L.C.
 MITIGATION BANK
 LOCATED IN SECTIONS 122 AND 128, T12S-R14E
 ASSUMPTION PARISH,
 LOUISIANA

Figure
12
 Aerial



SHEET	18	OF	18
DRAWN BY:	LMB		
APPROVED BY:	HJT		
SCALE:	1" = 1,000'		
DATE:			
JOB NUMBER:	2011.0267		

FILE: