DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, NEW ORLEANS DISTRICT
7400 LEAKE AVE
NEW ORLEANS, LA 70118-3651

PUBLIC NOTICE

January 3, 2023

United States Army
Corps of Engineers
New Orleans District
Attn: Regulatory Division, RG
7400 Leake Ave.
New Orleans, Louisiana 70118-3651

Project Manager:
Brian W. Breaux
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Application #: MVN-2021-00058- MB

Interested parties are hereby notified that a permit application has been received by the New Orleans District of the U.S. Army Corps of Engineers pursuant to: [**X**] Section 10 of the Rivers and Harbors Act of March 3, 1899 (30 Stat. 1151; 33 USC 403); and/or [**X**] Section 404 of the Clean Water Act (86 Stat. 816; 33 USC 1344).

TUNICA SWAMP-SILOS MITIGATION AREA - AMENDMENT ONE IN WEST FELICIANA PARISH

NAME OF APPLICANT: ESP Tunica Opportunities, 550 Reserve St., Southlake, TX 76092, Attn: Charles Klinge.

LOCATION OF WORK: Located in West Feliciana Parish approximately 4 miles north of St. Francisville, Louisiana, (East Tract lat. 30.767109, long. -91.428172; West Tract lat. 30.763282, long. -91.451327), as shown within the attached drawings. (Hydrologic Unit Code 08070201, Mississippi River Basin)

CHARACTER OF WORK: Expand the existing Tunica-Swamp Silos Mitigation Area (TSSMA) via incorporation of approximately 601.4 acres of existing forested areas to the conservation servitude. Approximately 507.9 acres consist primarily of bottomland hardwood, swamp, and batture habitats; the remaining 93.5 acres include artificial berms/spoil banks and open water areas. The TSSMA consists of two (2) disjoint tracts identified as the “East” and “West” tracts. The East tract currently totals 570.8 acres and would be expanded via the addition of 306.9 acres surrounding the tract to total 877.7 acres. The West tract currently totals 801.4 acres and would be expanded via the addition of 294.5 acres to total 1095.9 acres. In total, approximately 507.9 acres of existing forested lands of the total 601.4-acre expansion would be preserved.

The comment period on the requested Department of the Army Permit will close **30 days** from the date of this public notice. Written comments, including suggestions for modifications or objections to the proposed work, stating reasons thereof, are being solicited from anyone having interest in this permit request, and must be submitted so as to be received before or by the last day of the comment period. Letters and/or comments concerning the subject permit application must reference the Applicant's Name and the Permit Application Number and can be preferably emailed to the Corps of Engineer's project manager listed above or forwarded to the Corps of Engineers at the address above, **ATTENTION: REGULATORY DIVISION, RG, Mr. Brian Breaux.** Individuals or parties may also request an extension of time in which to comment on the proposed work by mail or preferably by emailing the specified project manager listed above. Any request for an extension of time to comment must be specific and substantively supportive of the requested extension and received by this office prior to the end of the initial comment period. The Branch Chief will review the request and the requester will be promptly notified of the decision to grant or deny the request.

Corps of Engineers Permit Criteria

The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people.

The U.S. Army Corps of Engineers is soliciting comments from the public, federal, state, and local agencies and officials, Indian Tribes, and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the U.S. Army Corps of Engineers to determine whether to make, modify, condition, or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

The New Orleans District is unaware of properties listed on the National Register of Historic Places near the proposed work. The possibility exists that the proposed work may damage or destroy presently unknown archeological, scientific, prehistorical, historical sites, or data. As deemed necessary, copies of this public notice will be sent to the State Archeologist, State Historic Preservation Officer, and federally listed tribes regarding potential impacts to cultural resources.

Our initial finding is that the proposed work would neither affect any species listed as endangered by the U.S. Departments of Interior or Commerce, nor affect any habitat designated as critical to the survival and recovery of any endangered species. Based on the Information Planning and Consultation (IPaC) tool for Endangered Species in Louisiana, as signed on January 27, 2020, between the U.S. Army Corps of Engineers, New Orleans and the U.S. Fish and Wildlife Service, it has been determined that the project is located in waters known to be utilized by the pallid sturgeon (*Scaphirhynchus albus*) and determined that the activity is not likely to adversely affect this species.

This notice initiates the Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. The applicant's proposal may result in the destruction, alteration, and/or disturbance 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. *Also, a certification that the proposed activity will not violate applicable water quality standards will be required from the Louisiana Department of Environmental Quality before a Department of the Army permit could be issued.*

Any person may request, (preferably by email to the project manager, or 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 invited to communicate the information contained in this notice to any other parties whom you deem likely to have interest in the matter.

Brian Breaux

for

Martin S. Mayer
Chief, Regulatory Division

Enclosure

Final Prospectus
TSSMA-Amendment One

West Feliciana Parish, LA

December 15, 2022

Sponsor:

ESP Tunica Opportunities, LLC
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Southlake, TX 76092

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1.0 Introduction

ESP Tunica Opportunities, LLC (ESP, Sponsor), respectfully presents this Final Prospectus to the US Army Corps of Engineers, New Orleans District (CEMVN) and the Interagency Review Team (IRT), to initiate evaluation of the proposed Tunica Swamp-Silos Mitigation Area (TSSMA), Amendment One (Amendment). The 601.4-acre Amendment will provide compensatory mitigation for unavoidable, permitted impacts to "Waters of the United States" if deemed appropriate per 33 CFR §332.3(a)(1) and 33 CFR §332.3 (b)(1).

The details pertaining to the use of this site as a mitigation bank will be specified in the subsequent Mitigation Work Plan (MWP) that will ultimately be made part of the approved Mitigation Area Agreement (MAA) for the TSSMA, which was approved in 2002. Section 15 of the MAA states, "This agreement may be amended to include additional bottomland hardwood and cypress/tupelo wetland acreage to the TSSMA," and that "Each Addendum will immediately become part of the agreement upon approval." Further, 33 CFR §332.8(v)(1) states that "Mitigation Banks approved prior to July 9, 2008, may continue to operate under the terms of their existing instruments. However, any modification to such mitigation banks…including…expansion of an existing site…must be consistent with the terms of this this part." Therefore, the Sponsor intends to amend the MAA to include an additional 601.4 acres, of which will include 507.9-acres of "Preservation Acreage."

1.1 Site Location and General Description

The Amendment and TSSMA are located along the east bank of the Mississippi River approximately 4 miles upstream of St. Francisville, LA (Figures 1 and 2). The Amendment is located within the Mississippi River Basin, the Lower Mississippi-Lake Maurepas Sub-Region, and the Lower Mississippi Region.

The Amendment can be divided into two subtracts, both of which will add-on to two subtracts of the TSSMA. The "West Tract" of the Amendment is 294.5 acres, which will be added to the current 801.425-acre West Tract of the TSSMA. The "East Tract" of the Amendment is 306.9 acres, which will be added to the current 570.811-acre East Tract of the TSSMA. The centroid coordinates for the West Tract are -91.451327, 30.763282 and the centroid coordinates for the East Tract are -91.428172, 30.767109. The West Tract is in Section 39, Township 3S, and Range 3W. The East Tract is in Section 41, Township 3S, and Range 3W. Figures 3-5 illustrates the West Tract, East Tract, the TSSMA, and provides general dimensions and location information.

The Amendment consists of existing bottomland hardwood (BLH), cypress-tupelo (SW), and Batture habitats and is within the natural floodplain of the Mississippi River. It represents some of the highest quality habitat within the watershed with many areas containing trees that are hundreds of years old. It is contiguous to the TSSMA and is adjacent to the 10,000-acre Cat Island National Wildlife Refuge. Typical natural elevations range from 29-44 Feet NAVD.

2.0 Project Goals and Objectives

The goal of the Amendment is to preserve a mixed bottomland hardwood, cypress, and batture wetland ecosystem that functionally compensates unavoidable impacts associated with Section 10 and/or 404 permits issues by CEMVN. The Amendment will generate 507.9 acres of Preservation Credit (Figure 6). The remaining 93.5-acres of non-credit generating acreage includes artificial berms/spoil banks and open water areas.

2.1 Wetland Functions and Values

As defined by *The Natural Communities of Louisiana* published in 2009 by the Louisiana Department of Wildlife and Fisheries (LDWF) and the Louisiana Natural Heritage program (LNHP), BLH forests are forested, alluvial wetlands occupying broad floodplain areas that flank large river systems. 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. 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. Bottomland hardwoods are extremely productive areas due in part to periodic flood-transported and deposited particulate and dissolved organic matter and nutrients. Further, these forests act as buffers for low-elevation urban areas, absorbing and dissipating the physical energy of river systems. The strength of these attributes is influenced by the composition and species density in these forests (DeWeese et al 2007).

As defined by *The Natural Communities of Louisiana*, Baldcypress Swamps are forested, alluvial swamps growing on intermittently exposed soils most commonly along rivers and streams but also occurring in backswamp depressions and swales. 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. However, all swamps – even deep-water swamps with almost continuous flooding – experience seasonal fluctuations in water levels. Swamp forests generally occur on mucks and clays as well as silts and sands with an underlying clay layer. They contain relatively low floristic diversity, and associate species may vary widely from site to site. Undergrowth is often sparse because of low light intensity and long hydroperiods. Swamps tend to be even-aged stands since the environmental conditions favorable for germination and establishment of saplings occur very infrequently. Swamps provide important ecosystem functions including maintenance of water quality, productive habitat for a variety of fish and wildlife species, and regulation of flooding, and stream recharge. 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.

A stated in the Louisiana Comprehensive Wildlife Conservation Strategy (LDWF 2005), the batture community develops on the slope between the natural levee crest and major streams and rivers. It is a pioneer community which is first to appear on newly formed sand bars and river margins. The area receives sands and silts with each flood. The soils are semi-permanently inundated or saturated. Soil inundation or saturation by surface water or groundwater occurs periodically for a major portion of the growing season. Such conditions typically prevail during spring and summer months with a frequency ranging from 51 to 100 years per 100 years. The total duration of time for the seasonal event(s) normally exceeds 25 percent of the growing season. Salix nigra (black willow) comprises a majority of the stocking, and Populus deltoides (cottonwood) is the primary associate. Secondary species may be, depending chiefly on successional stage, Betula nigra (riverbirch), Fraxinus pennsylvanica (green ash), Platanus occidentalis (American sycamore), Carya illinoensis (pecan), Celtis laevigata (hackberry), Acer rubrum (red maple), Forestiera acuminata (swamp privet), Planera aquatica (water elm), Ulmus americana (American elm), Taxodium distichum (baldcypress), Acer negundo (box elder) and Morus rubra (red mulberry). Salix exigua (sandbar willow) may be common in certain sites. Batture is a community undergoing relatively rapid succession. Black willow is a temporary, short-lived pioneer species of very rapid growth. Cottonwood will outgrow willow and become dominant except where frequent and extended growing-season flooding covers the trees and limits its growth. As sediments build up in the community and succession progresses, willow and cottonwood become less dominant and secondary associates gain increasing importance in the community. The community often succeeds into Hackberry-American Elm-Green Ash or Sycamore-Sweetgum-American Elm Bottomland Forest. In addition to providing habitats for plants and animals, forested wetlands provide other valuable goods and services. These wetlands store floodwaters and dampen river flood crests, helping to control flood damage and erosion. They also improve human water supplies by filtering out sediments, nutrients, and

pollutants; and by stabilizing river flows and groundwater levels. The fish and wildlife habitats help support fishing, nature tourism, hunting, and other recreational uses (Texas A&M).

The Sponsor will provide long-term protection of the BLH, SW, and Batture habitat within the Amendment by establishing a perpetual Conservation Servitude over the Amendment, which will amend the previous Conservation Servitude established for the TSSMA in 2021. This along with the establishment of a long-term maintenance and protection fund (endowment) that will be administered by the National Fish and Wildlife Foundation (NWFW) will ensure that the wetland habitat is protected. This will allow the public to continue to realize the following wetland values, which will occur at the following three levels (Mitsch and Gosselink, 2000):

- Population – Animals harvested for pelts and/or food; wildlife observation/recreation; endangered/threatened species habitat
- Ecosystem – Flood mitigation; storm abatement; aquifer recharge, water quality improvement; aesthetics
- Biosphere – Nitrogen cycle; sulfur cycle; carbon cycle; phosphorus cycle

2.2 Use of Preservation Credit Type

LRAM

According to the Louisiana Rapid Assessment Method (LRAM), preservation can be defined as "the removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through implementation of appropriate legal and physical mechanisms."

The LRAM also discusses the Preservation Credit Type: "Site is a functioning wetland and integral to the functionality of adjacent wetlands or aquatic resources. The project site must be encumbered by a site protection instrument as defined in 33 CFR Part 332. Credit granted should accompany credit generated by re-establishment, rehabilitation or enhancement and will generally be limited to 50% of the total acreage of restoration/enhancement acres for the rest of the project site. Compensatory mitigation projects whose credits are derived solely from preservation will still be considered on a case-by-case basis."

2008 Mitigation Rule (33 CFR §332)

Preservation is also discussed in *Compensatory Mitigation for Losses of Aquatic Resources (*2008 Rule) as a compensatory mitigation method.

The 2008 Rule defines preservation as: *the removal of a threat to, or preventing a decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions* (§332.2).

According to 332.3 (h), Preservation may be used to provide compensatory mitigation for activities authorized by DA permits when all the following criteria are met:

- *The resources to be preserved provide important physical, chemical, and biological functions for the watershed*
- *The resources to be preserved contribute significantly to the ecological sustainability of the watershed*
- *Preservation is determined by the district engineer to be appropriate and practicable*
- *The resources are under threat of destruction or adverse modifications*

- *The preserved site will be permanently protected through an appropriate real estate or other legal instrument*

TSSMA Amendment One, Use of Preservation

The use of the Amendment as a compensatory mitigation bank is appropriate and practicable under LRAM and the 2008 Rule for the following reasons:

- The Amendment will provide 507.9 acres of preservation that will be contiguous/adjacent to the existing TSSMA, which contains 1,241.3 acres of rehabilitation, and 72.6 acres of preservation Collectively, the preservation component will represent 46.3% of the rehabilitation acreage within the TSSMA, and the overall size of the TSSMA will increase to 1,933.4 acres.
- Considering the Functions and Values BLH and SWP provide, as described in Section 2.1 of this document, the preserved wetlands within the Amendment will certainly provide important physical, chemical, and biological functions for the watershed.
- The Amendment, along with the TSSMA will result in a 1,933.4-acre privately owned protected wetland ecosystem that will contribute significantly to the existing 10,000-acre Cat Island National Wildlife Refuge, with much of the Amendment containing old-growth cypress trees and mature forested wetlands that are exceptional to the lower Mississippi Alluvial Valley and Mississippi River Watershed.
- The BLH and SWP habitat proposed to be utilized as preservation credit are under threat of destruction. Without the establishment of the Amendment as a Mitigation Bank, the landowner intends to conduct a timber harvest within the Amendment. Therefore, the protection of the Amendment and incorporation into the TSSMA Conservation Servitude will be integral to the functionality of the adjacent/surrounding wetland ecosystems.

3.0 Ecological Suitability of the Site/Baseline Conditions

3.1 Land Use

3.1.1 Historical Land Use

The earliest available aerial imagery for the Amendment and surrounding area is a 1906 United States Geological Survey (USGS) Topographic Map (USGS). In this image (Figure 7), the Amendment is classified as “forested marsh or swamp” with an unimproved road nearby that originates near Bayou Sara.

The 1965 USGS Topographic Map (Figure 8) also shows the Amendment as a forested swamp, and other surrounding features are also noted such as the “Timberwheel Lakes” as well as “Pugh Lakes” which are found in the West and East Tracts, respectively. There are also “jeep trails” in the immediate area which suggests the Amendment and larger area were used for hunting/recreation. The 1983 USGS Topographic Map (Figure 9) still shows the Amendment as being forested/swamp and the presence of 4-wheel drive roads. This image shows the TSSMA as an agricultural area. The 2006 Google Earth image (Figure 10) shows the Amendment as a mixed forested wetland habitat. Since this time, the land within the Amendment has been used for hunting/recreation.

3.1.2 Current Land Use

Figure 11 illustrates current site conditions. The only land-use within the Amendment is hunting/recreation.

Figure 12 illustrates current site conditions/land-use within a 1-Mile Radius, summarized below:

- Forested: 30%
- Wildlife Refuge: 22%
- Open Water (Includes River): 18%
- Existing TSSMA: 15%
- Batture (west bank): 5%
- Pasture/non-forested: 4%
- Agriculture (west bank): 3%
- Residential (west bank): 2%
- Miss. River Levee (west bank): 1%

3.2 Soils

According to the NRCS, the soils within the Amendment include Crevasse loamy sand (CR), Dowling Soils (DR), Riverwash (RA), Sharkey (SH), and Tunica and Sharkey Soils (TU) (Figure 13).

The Crevasse series consist of very deep, excessively drained, rapidly permeable soils that formed in sandy alluvium. These level to gently sloping soils are on splays and recent, sparsely vegetated point bar deposits on the floodplain of the Mississippi River and tributaries.

The Dowling series consists of very deep, very poorly drained, very slowly permeable soils that formed in clayey alluvium. These soils are in low, ponded oxbow depressions and backswamp areas of the lower Mississippi River alluvial plain. Slopes are less than 1 percent. Dowling soils are on low ponded oxbow depressions and backswamp positions on the lower Mississippi River alluvial plain. They formed in thick deposits of clayey alluvium.

The Riverwash is not listed in the soil series descriptions, however, it is assumed to be similar to the Crevasses series.

The Sharkey series consists of very deep, poorly and very poorly drained, very slowly permeable soils that formed in clayey alluvium. These soils are on flood plains, lower parts of natural levees, in backswamps and abandoned channels, and on interfluves and low terraces of the Mississippi River. Slope is dominantly less than 1 percent but ranges to 5 percent.

The Tunica series consists of deep, poorly drained soils that formed in clayey alluvium and the underlying loamy alluvium. These soils are on the lower parts of natural levees on the younger meander belts of the Mississippi River and its tributaries of the Lower Mississippi Valley. Slope is dominantly 0 to 3 percent but ranges to 5 percent on narrow ridges within the flood plain.

Of the soils listed above, all are designated “hydric” by the NRCS except for the Crevasse series.

3.3 Hydrology

3.3.1 Contributing Watershed

The Amendment is located within the 444,710-acre Bayou Sara-Thompson watershed (HUC8 08070201), which is part of the Lower Mississippi-Lake Maurepas subregion (HUC4 0807). Specifically, it is contained within the 34,084-acre Tunica Swamp sub-basin (HUC12 080702010102) which drains to the Profit Island-Mississippi River sub-basin (080702010103). The Amendment’s location within these watersheds is mapped in Figure 14.

3.3.2 Historical/Current Hydrology

Climate normals (Figure 15) representing the 30-year period from 1991-2020 at the Amendment were obtained from NOAA's National Centers for Environmental Information (temperature) and AgACIS WETS tables (precipitation). Monthly average temperatures range from 48.1° F in January to 81.9° F in August (NCEI St Francisville 1 NE, 1991-2020). Average annual rainfall is 68.8 inches per year, with the driest 30% of years receiving 59.1 inches or less and the wettest 30% receiving at least 71.6 inches (AgACIS St. Francisville, 1991-2020). Average monthly rainfall is highest in January and June (greater than 6 inches) and lowest in July, September, and November (4.5 inches or lower).

The Amendment is located along the east bank of the Mississippi River on a convex meander bend. The topography consists of overlapping, truncated point bar sequences of ridge and swale formations, created by repeated river flooding and the resulting lateral accretion associated with channel migration (Saucier 1994). Elevations within the Amendment range from 29 to 48 ft NAVD88. Historical sources of water to the Amendment are precipitation and overflow from the Mississippi River during high stages. As floodwaters recede, the complex topography associated with the naturally deposited sediments creates localized impoundment of remaining floodwater within swales and depressions. Due to the low hydraulic conductivity of the underlying soils (Tunica, Sharkey, Dowling), infiltration is minimal during flooded conditions, although shrinking of these soils can produce cracks which facilitate rapid water removal during unsaturated conditions (Web Soil Survey). Potential evapotranspiration as estimated from monthly average temperature (Thornwaithe & Mather 1957, Dunne & Leopold 1978) is highest in July (6.5 in/month) and lowest in January (0.5 in/month). Net precipitation (precipitation-evapotranspiration) is plotted for wet, average, and dry years in Figure 15.

USACE levees are only present on the west bank of the Mississippi River in the vicinity of the Amendment, maintaining hydrologic connectivity between the Amendment and the river during flood stage. However, minor hydrologic modification has occurred near the Amendment due to the construction of levees and adjacent borrow ditches around the perimeter of the West Tract the Amendment, as well as a main canal running along the western unit which facilitates access and surface water flow between the interior of the point bar and the Mississippi River. These features were constructed between 1965 and 1980 (USGS Living Atlas). Perimeter levee crest elevations range between 33 and 37 ft NAVD88 and are comparable to the surrounding natural topography. The levee along the main canal ranges in elevation from 40 to 50 ft NAVD88, but gaps along its length facilitate drainage from the Amendment even when the river stage is lower. Human activity has modified specific areas of impoundment, but the overall hydrology of the Amendment and its connectivity to the Mississippi River are comparable to its historical condition. Amendment hydrology is summarized in Figure 16.

As determined from LIDAR elevations, river water enters both Tracts of the Amendment when the Mississippi reaches a stage of 34 ft (Figure 17), except for the portion of the western unit along the riverbank which is protected by a higher natural levee to a stage of 40 ft (Figure 18). 75% of the Amendment is inundated at a river stage of 34 ft, and 94% is inundated at 40 ft. River levels at the Amendment for the past 20 years (Figure 19) were inferred from daily USACE gage records at St. Francisville (2009-2021) and Red River Landing (2001-2009, shifted by -9.15 ft based on the mean difference between the two gages for all days with simultaneous readings). All but 2 (2005-2006) of the past 20 years experienced an annual Mississippi River peak stage above 34 ft at the Amendment, and the river exceeded 40 ft in 15 years. The river was above 34 ft on 30% of all days with an observation, and above 40 ft on 14% of all days. The river was below 29 ft, the lowest elevation within the Amendment, during all years in the period of record and on 57% of days. High water events during the period of record are continuous spring floods followed by continuous periods of low water in the fall, although the timing and number of

peaks vary annually based on local and upstream weather patterns. Therefore, average annual hydroperiods can be estimated from the inundation frequencies—3.7 months above 34 ft, 1.7 months above 40 ft, and 6.9 months below 28 ft.

3.3.3 Bank Elevations

Figure 20 illustrates elevations within the Amendment, which range from 55.62 feet NAVD to 26.97 feet NAVD

3.3.4 Jurisdictional Determination

A Jurisdictional Determination (JD) was issued for the Amendment on December 14, 2022 (MVN 2021-00058-SQ). Appendix A contains the JD letter and maps as well as the submitted Wetland Data Report.

3.4 Vegetation

3.4.1 Historic Vegetative Communities

According to the Natural Communities of Louisiana (LDWF 2009), portions of the Amendment would likely have contained plant communities associated with "Sweetgum-Water Oak" BLH association, "Batture" associations, along with "Baldcypress-Tupelo Swamp."

The Sweetgum-Water Oak community occurs in alluvial floodplains, extensively in the Mississippi alluvial valley on well drained first bottom ridges. The community dominants are *Liquidambar styraciflua* (sweetgum) and *Quercus nigra* (water oak). Major associates *are Celtis laevigata* (hackberry), *Fraxinus pennsylvanica* (green ash), *Ulmus americana* (American elm), and *Quercus texana* (Nuttall oak). Associated species are *Acer rubrum* (red maple), *Morus rubra* (red mulberry), *Smilax spp.* (greenbrier), *Sabal minor* (dwarf palmetto), *Ilex decidua* (deciduous holly), *Crataegus viridis* (green hawthorn), *Ampelopsis arborea* (peppervine), *Campsis radicans* (trumpet creeper), and *Toxicodendron radicans* (poison ivy).

The Batture community develops on the slope between the natural levee crest and major streams/rivers. It is a pioneer community which is first to appear on newly formed sand bars and river margins. The area receives sands and silts with each flood. Soil inundation or saturation by surface water or groundwater occurs periodically for a major portion of the growing season. *Salix nigra* (black willow) comprises a majority of the stocking, and *Populus deltoides* (cottonwood) is the primary associate. Secondary consociates may be, depending chiefly on successional stage, *Betula nigra* (riverbirch), *Fraxinus pennsylvanica* (green ash), *Platanus occidentalis* (American sycamore), *Carya illinoensis* (pecan), *Celtis laevigata* (hackberry), *Acer rubrum* (red maple), *Forestiera acuminata* (swamp privet), *Planera aquatica* (water elm), *Ulmus americana* (American elm), *Taxodium distichum* (baldcypress), *Acer negundo* (box elder) and *Morus rubra* (red mulberry). Salix exigua (sandbar willow) may be common in certain sites. Batture is a community undergoing relatively rapid succession.

The Baldcypress-Tupelo Swamp community is inundated or saturated by surface water or ground water on a nearly permanent basis throughout the growing season except during periods of extreme drought. *Taxodium distichum* (baldcypress) and *Nyssa aquatica* (tupelo gum) are codominants. Common associates are *Nyssa sylvatica var. biflora* (swamp blackgum), *Acer rubrum var. drummondii* (swamp red maple), *Salix nigra* (black willow), *Fraxinus profunda* (pumpkin ash), *F. pennsylvanica* (green ash), *Planera aquatica* (water elm), *Gleditsia aquatica* (water locust), *Itea virginica* (Virginia willow), and *Cephalanthus occidentalis* (buttonbush). Undergrowth is often sparse because of low light intensity and long hydroperiod.

3.4.2 Current Vegetative Communities and Habitat

Drone imagery was used to determine approximate tree species compositions within each habitat type on each tract. Additionally, information from the Louisiana Natural Communities (LDWF 2009) was used to determine which species were most likely to be present within this ecosystem. Drone surveys in Spring 2020 (Appendix B) were analyzed and images of the tree crowns were then used to identify the different tree compositions and determine a percent cover for each observed composition. Some trees were only able to be identified to a genus**.**

The Amendment represents a mixed bottomland hardwood, cypress swamp, and Batture habitat ecosystem, with elevations determining the dominant species present. This mixed habitat also reflects how certain areas were planted/interplanted within the TSSMA. In general, the Batture habitat and bottomland hardwood habitats are found from 30 feet to 44 feet NAVD, whereas the cypress swamp habitat is found from 29 feet to 33 feet NAVD. Below is a summary of the species observed within the Amendment from the aerial drone imagery:

Batture Habitat

The Batture habitat consists of woody plant species that appear to mix of black willow, river birch, green ash, and mature bald cypress, pecan, and eastern cottonwood present on the higher areas. Based off the drone images, crown sizes of the trees were used to estimate the maximum diameter at breast height (DBH) for each species. Maximum DBH for black willow is 16”, river birch is 14”, green ash is 12”, pecan is 14”, bald cypress is 28”, and eastern cottonwood is 28”. Portions of the Batture area contains primarily herbaceous species, which correlates with the Crevasse (CR) and Tunica (TU) soil series which are high in nutrients and support tree species that grow in sandy/loamy alluvial plains. The non-forested habitat will most likely become occupied by green ash and/or black willow over time and ultimately BLH species through natural regeneration, for their seed dispersal mechanism is most ideal for reforesting riverbanks.

Bottomland Hardwood Habitat

Within the East Tract, the dominant tree layers consist of 35% oak (Quercus spp.), 30% green ash, 15% sugarberry, 10% eastern cottonwood, 5% hickory (Carya spp.), and 5% bald cypress. Within the West Tract, the dominant tree layers consist of 40% oak, 25% green ash, 15% sugarberry, 10% eastern cottonwood, 5% hickory, and 5% bald cypress. Based off the drone images, crown sizes of the trees were used to estimate the maximum DBH for each species. Both tracts appear to have trees with similar ages and DBHs. Maximum DBH for oak is 32”, green ash is 18”, sugarberry is 16”, eastern cottonwood is 24”, hickory is 20”, and bald cypress is 60”. Most of the tree crowns in this habitat appear healthy and mature; however, there are indications of stressed, mature trees of unknown species scattered throughout this area with crown dieback, however these areas make up <5% of the forest canopy cover. Crown dieback can be caused from numerous factors, but in this case is most likely caused from over-mature trees reaching the end of their life cycle or becoming stressed from irregular inundation regimes (Kennedy 1974). While these trees do experience some level of root and/or crown damage, they often are able to overcome this setback, and mortality is relatively limited (Kennedy 1974). It is most common to have this occur in over-mature trees and saplings 1-5 years old.

Cypress Swamp

Within both tracts, the cypress swamp areas have a high abundance of healthy, mature bald cypress and swamp tupelo and is high quality SWP habitat. The dominant tree layers consist of 50% bald cypress, 25% swamp tupelo, and 25% green ash. Based off the drone images, crown sizes of the trees were used to estimate the maximum DBH for each species. Maximum DBH for bald cypress is 66”, swamp tupelo is 46”, and green ash is 28”.

3.5 General Need for the Project in this Area

The Amendment is needed to provide compensatory mitigation for the Mississippi River Basin. According to the Regulatory In-Lieu Fee and Bank Information Tracking System (RIBITS) website, as of October 1, 2021 there are currently -17.5 BLH credits and 0 SWP credits available in this watershed. As a result, any proposed project would be forced to secure mitigation "out of basin," which is not preferable according to the 2008 Rule or would result in a project being placed "on-hold" until appropriate mitigation is available, which would deny the public the benefit that a project could provide. Therefore, there is a strong public need for the Amendment to be established as a compensatory mitigation bank.

4.0 Establishment of the Mitigation Bank

The Amendment is proposed to include entirely preservation acreage. Therefore, the only action required would be to amend the current Conservation Servitude of the TSSMA to include the acreage within the Amendment. The Sponsor will also post perimeter signage indicating that the area is protected under a federal wetland mitigation banking program. Once the Amendment is incorporated into the Conservation Servitude it will be protected for perpetuity.

4.1 Technical Feasibility

The Amendment is already a self-sustaining and high quality mixed BLH, SWP, and Batture ecosystem. The Sponsor has conducted the necessary background research, land surveying efforts, and taken the necessary steps to amend the previous conservation servitude for the TSSMA, therefore it is technically feasible to amend the Conservation Servitude again to include the Amendment project area.

4.2 Site Risks

Once the Conservation Servitude is placed on the Amendment, there will be no risks associated with the Amendment being preserved as a BLH, SW, and Batture ecosystem. There are no issues regarding water rights and there are no designated Rights of Way/easement within the Amendment. The Amendment has proven itself to be able to withstand Mississippi River Flooding. The Sponsor has assumed control of any hunting leases as well.

4.3 Long-Term Sustainability of the Site

The Amendment is already a sustainable wetland ecosystem, and the Sponsor's proposed action of incorporating the Amendment into the Conservation Servitude of the TSSMA will ensure that it is protected for perpetuity.

5.0 Service Area

The Sponsor proposes to use the Mississippi River and Pontchartrain River Basins as the Service Area (Figure 22). As impacts to BLH and SW occur within this area, securing credits from Amendment will result in a no-net loss of wetlands/aquatic resources within the Watershed. Use beyond this service area/habitat types will be determined by CEMVN on a case-by-case basis.

6.0 Operation of the Mitigation Bank

6.1 Project Representatives

Sponsor:
ESP Tunica Opportunities LLC
550 Reserve St
Southlake, TX 76092
Attn: Charles Klinge

Landowner:
Gilbert H Dozier
2010 W. Pinhook Rd
Lafayette, LA 70508

6.2 Qualifications of the Sponsor

The Sponsor, ESP Tunica Opportunities, LLC was established in 2016. The Sponsor is one of the best capitalized operators in the environmental services market and will be able to successfully establish the Amendment, evident in the recent ecological success of the TSSMA. ESP has developed a national reputation for meeting or exceeding the highest standards for operations and compliance.

6.3 Proposed Long-Term Ownership and Management Representatives

Ecological Service Partners, LLC will serve as the Sponsor of the Amendment, and Mr. Gilbert Dozier will serve as the landowner. The Sponsor will reserve the option of appointing a long-term steward which must be approved by CEMVN and the IRT. The Sponsor anticipates that the long-term management needs will be minimal and consist of boundary control and access maintenance.

6.4 Site Protection

The Bank will be protected in perpetuity by a conservation servitude pursuant to Louisiana Revised Statute 9:1271 et seq. The servitude will be held by Mississippi River Trust, a non-profit conservation-oriented 501(c) (3) organization that is approved by CEMVN and the IRT. The servitude will inure and run with the property title. The servitude will prohibit activities, such as clear cutting, fill discharges, cattle grazing, or other commercial surface development that would diminish the quality or quantity of restored wetlands. Figure 23 and 24 illustrates the land areas (535.7 acres) that will be protected by the Conservation Servitude.

6.5 Long-Term Strategy

Upon approval and incorporation of the Amendment into the TSSMA Conservation Servitude, the Sponsor will amend the existing long-term management fund to include the lands within Amendment. This fund is currently administered by the National Fish and Wildlife Foundation (NFWF). Upon approval the Sponsor propose to utilize the funds in the account for long-term management of the Amendment.

7.0 References

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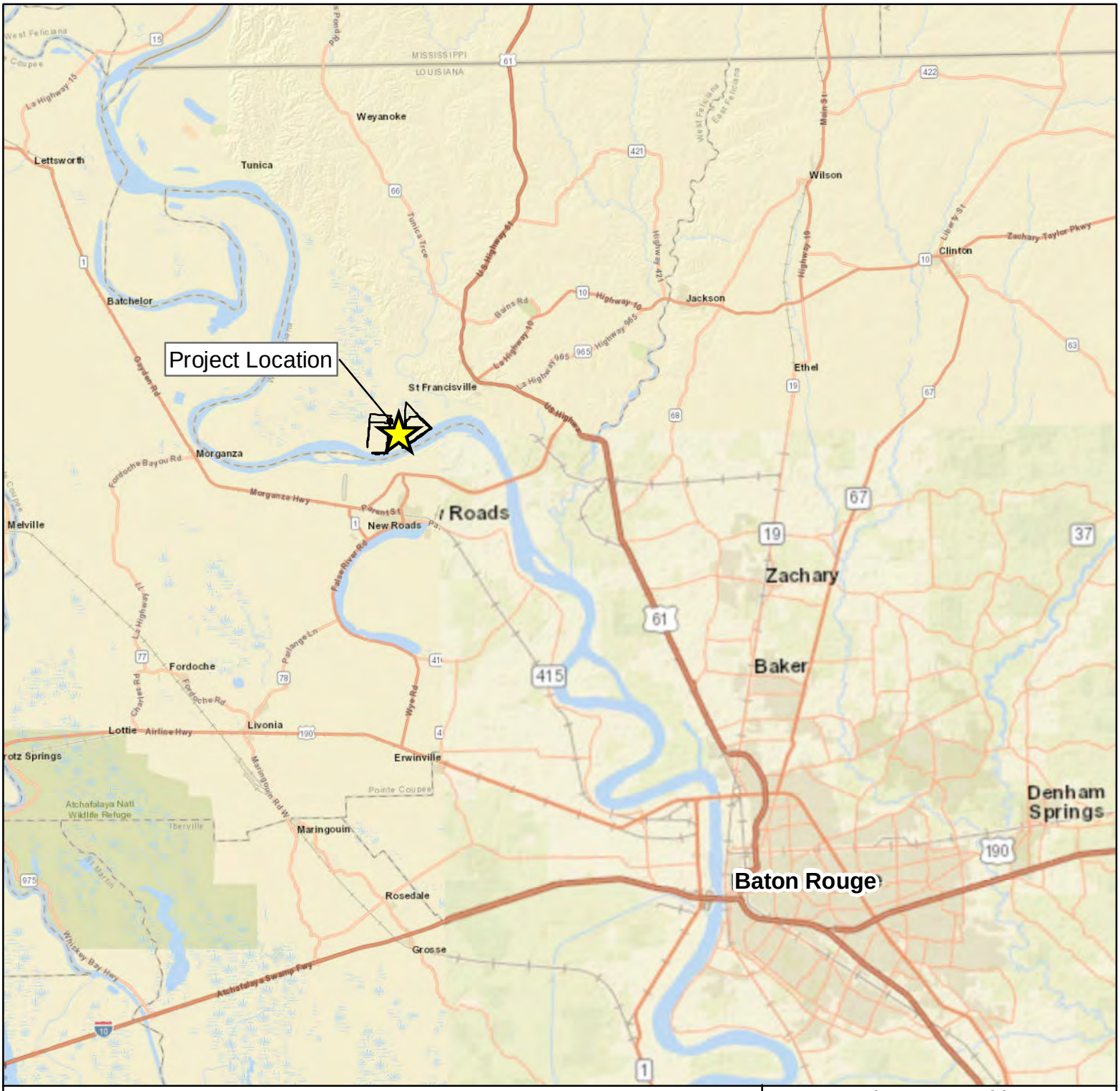
Figures



6.0 3.0 0 3.0 Miles

N

Map Notes:

1. The boundary shown is based on the boundary survey provided by the client.
2. Map projected to NAD83 UTM Zone 15.

ESP Tunica Opportunities, LLC

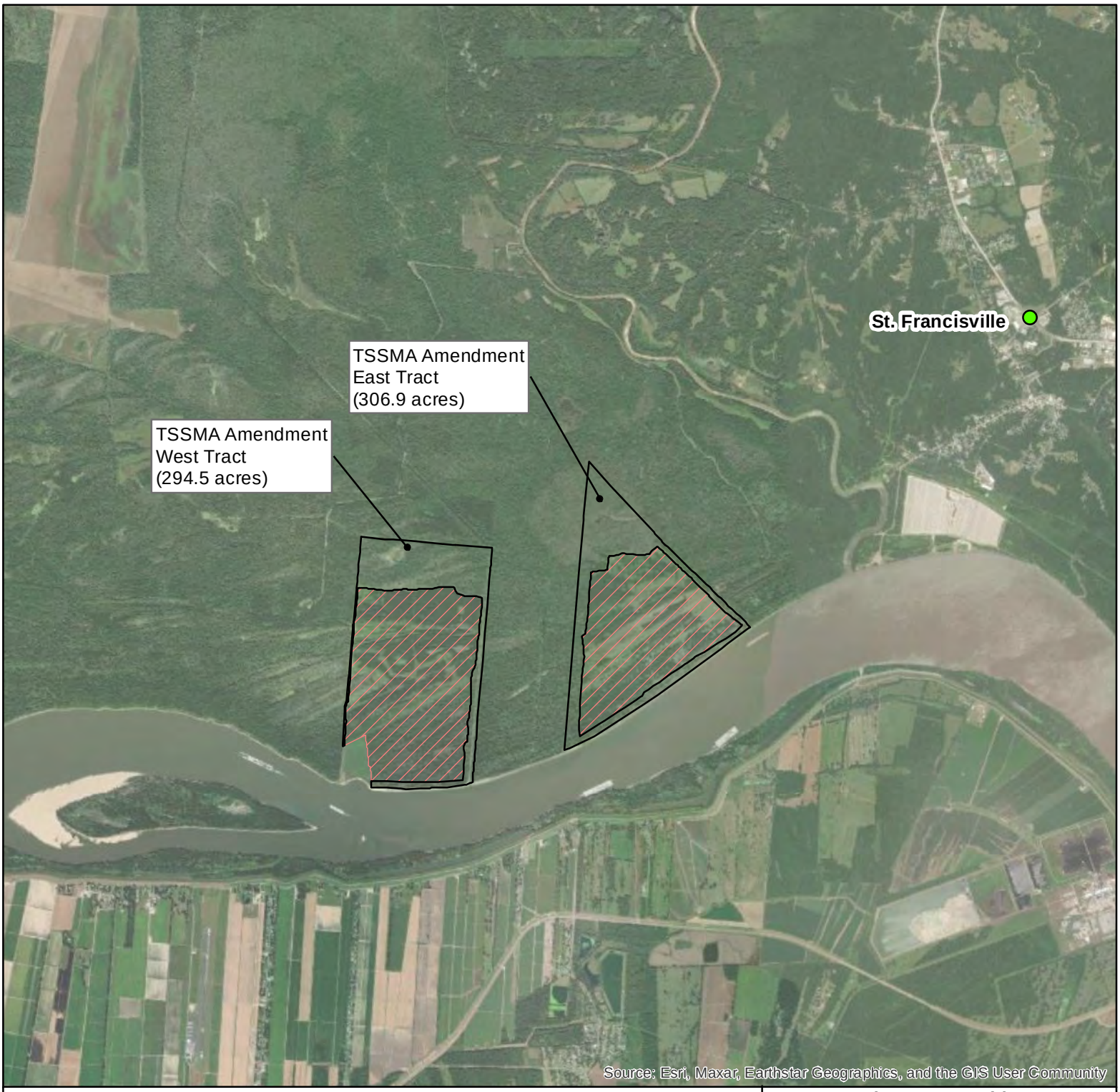
Southlake, TX

VICINITY MAP

W FELICIANA PARISH, LA

Created :	AGB/ArcView
Approved :	GLF
Date :	10/18/2021
Map No. :	

FIGURE 1



Legend

- Project Boundary (601.4 acres)
- Existing TSSMA Bank Boundary (1,332 acres)

1.0 0.5 0 1.0 Miles

N

Map Notes:

1. The boundary shown is based on the boundary survey provided by the client.
2. Map projected to NAD83 UTM Zone 15.

ESP Tunica Opportunities, LLC

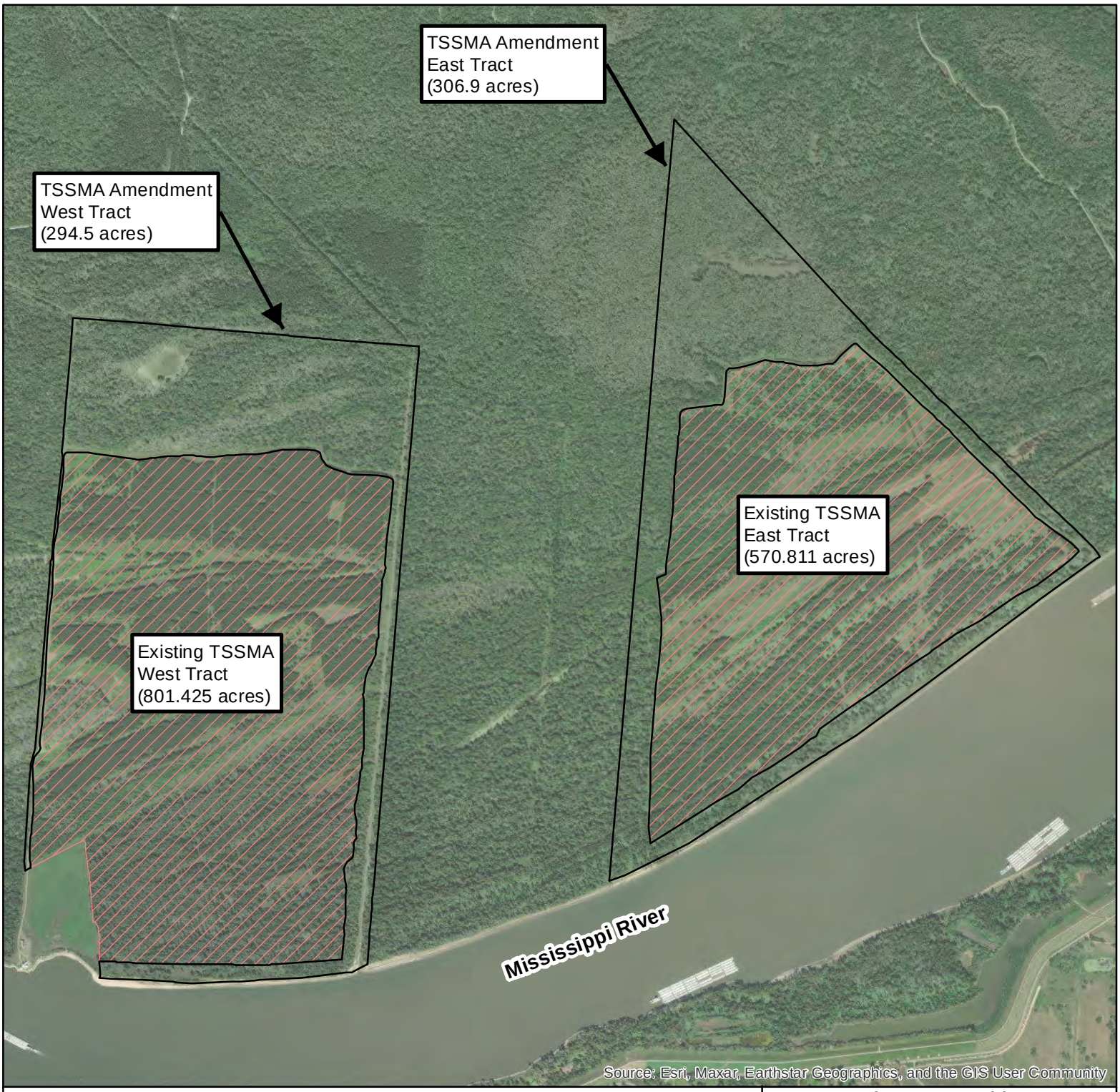
Southlake, TX

AERIAL MAP

W FELICIANA PARISH, LA

Created :	AGB/ArcView
Approved :	GLF
Date :	10/18/2021
Map No. :	

FIGURE 2



Legend

- Project Boundary (601.4 acres)
- Existing TSSMA Bank Boundary (1,332 acres)

2,000 1,000 0 2,000 Feet

NRP

N

Map Notes:

1. The boundary shown is based on the boundary survey provided by the client.
2. Map projected to NAD83 UTM Zone 15.

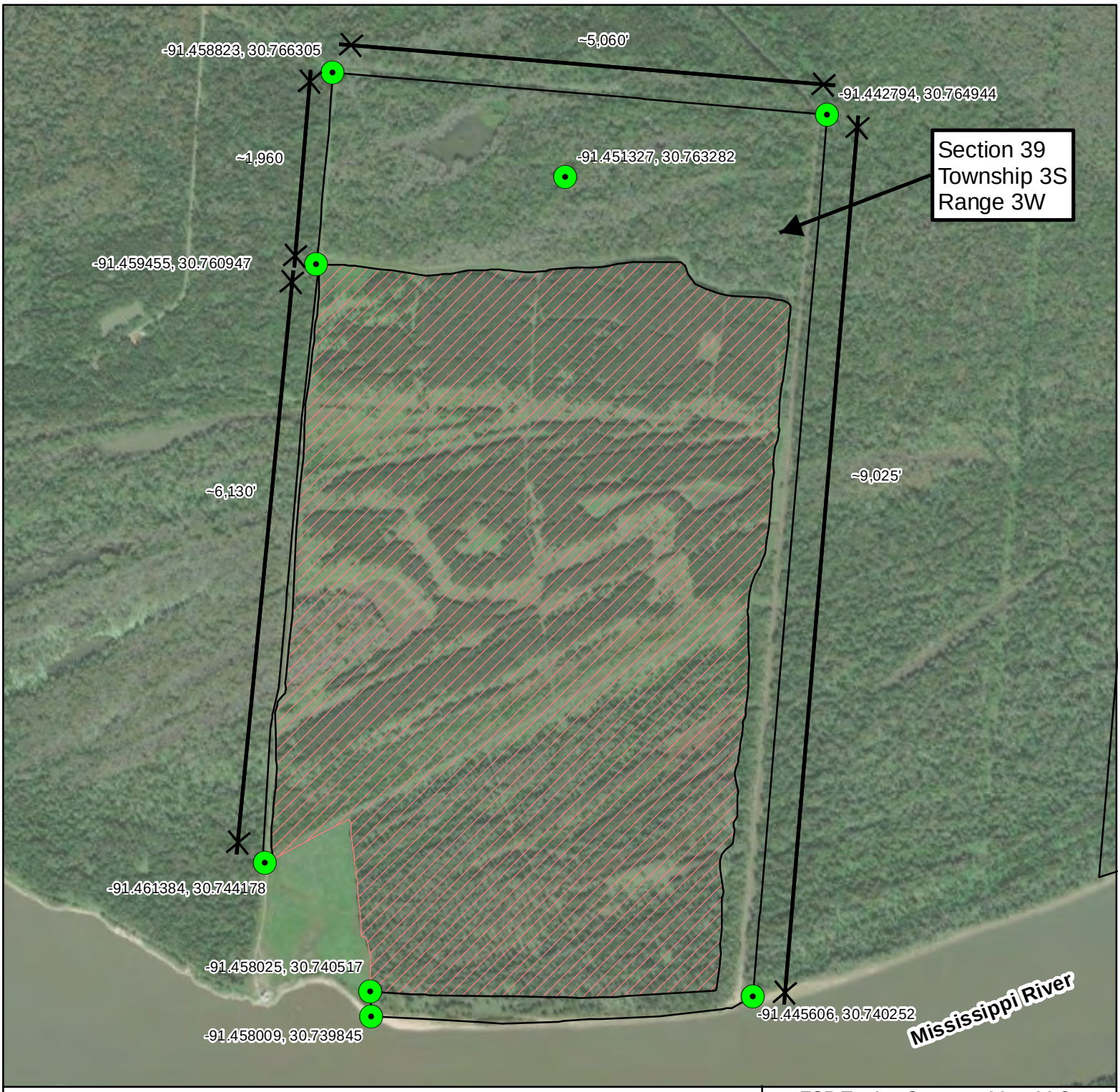
ESP Tunica Opportunities, LLC

Southlake, TX

AERIAL MAP
ZOOM IN
W FELICIANA PARISH, LA

Created :	AGB/ArcView
Approved :	GLF
Date :	10/18/2021
Map No. :	

FIGURE 3



Legend

- TSSMA Amendment (601.4 acres)
- Existing TSSMA Bank Boundary (1,332 acres)
- Corner Boundary Points

1,400 700 0 1,400 Feet

NRP

N

Map Notes:

1. The boundary shown is based on the boundary survey provided by the client.
2. Map projected to NAD83 UTM Zone 15.

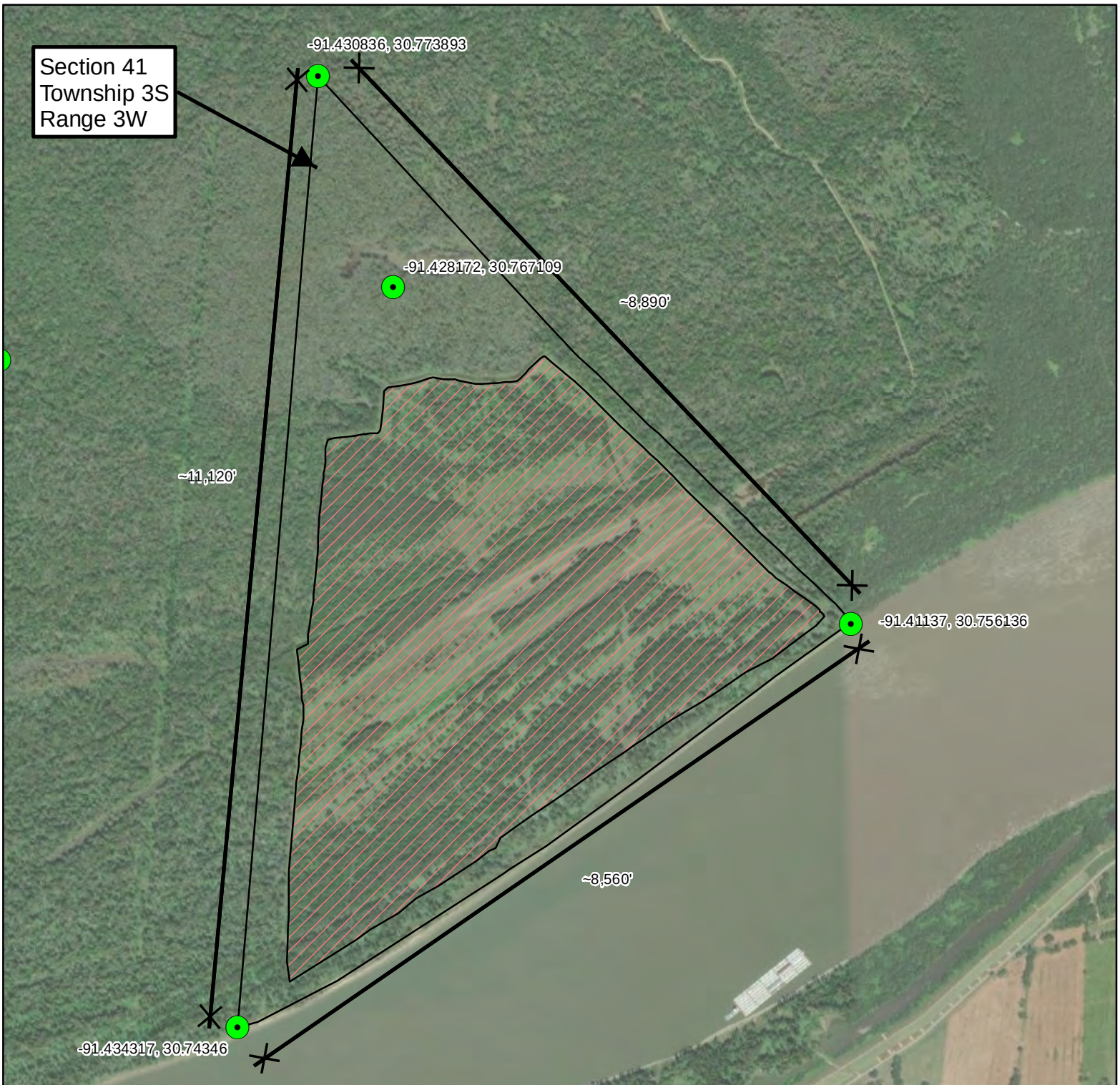
ESP Tunica Opportunities, LLC

Southlake, TX

AERIAL MAP
WEST TRACT
W FELICIANA PARISH, LA

Created :	AGB/ArcView
Approved :	GLF
Date :	10/18/2021
Map No. :	

FIGURE 4



Legend

- TSSMA Amendment (601.4 acres)
- Existing TSSMA Bank Boundary (1,332 acres)
- Corner Boundary Points

1,600 800 0 1,600 Feet

NRP

N

Map Notes:

1. The boundary shown is based on the boundary survey provided by the client.
2. Map projected to NAD83 UTM Zone 15.

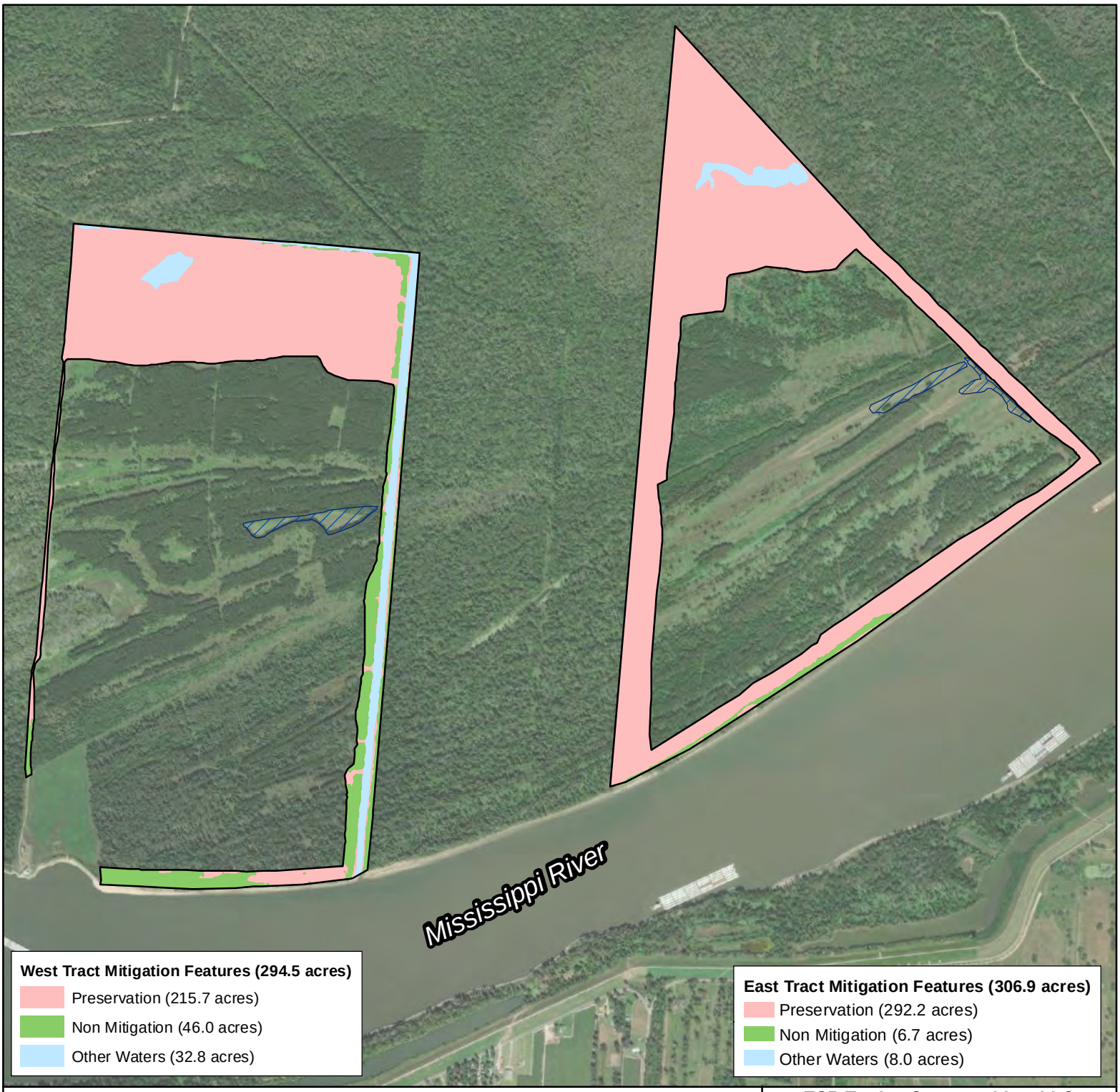
ESP Tunica Opportunities, LLC

Southlake, TX

AERIAL MAP
EAST TRACT
W FELICIANA PARISH, LA

Created :	AGB/ArcView
Approved :	GLF
Date :	10/18/2021
Map No. :	

FIGURE 5



Legend

TSSMA Amendment (601.4 acres)

2,000 1,000 0 2,000 Feet

N

Map Notes:

1. The boundary shown is based on the boundary survey provided by the client.
2. Map projected to NAD83 UTM Zone 15.

ESP Tunica Opportunities, LLC

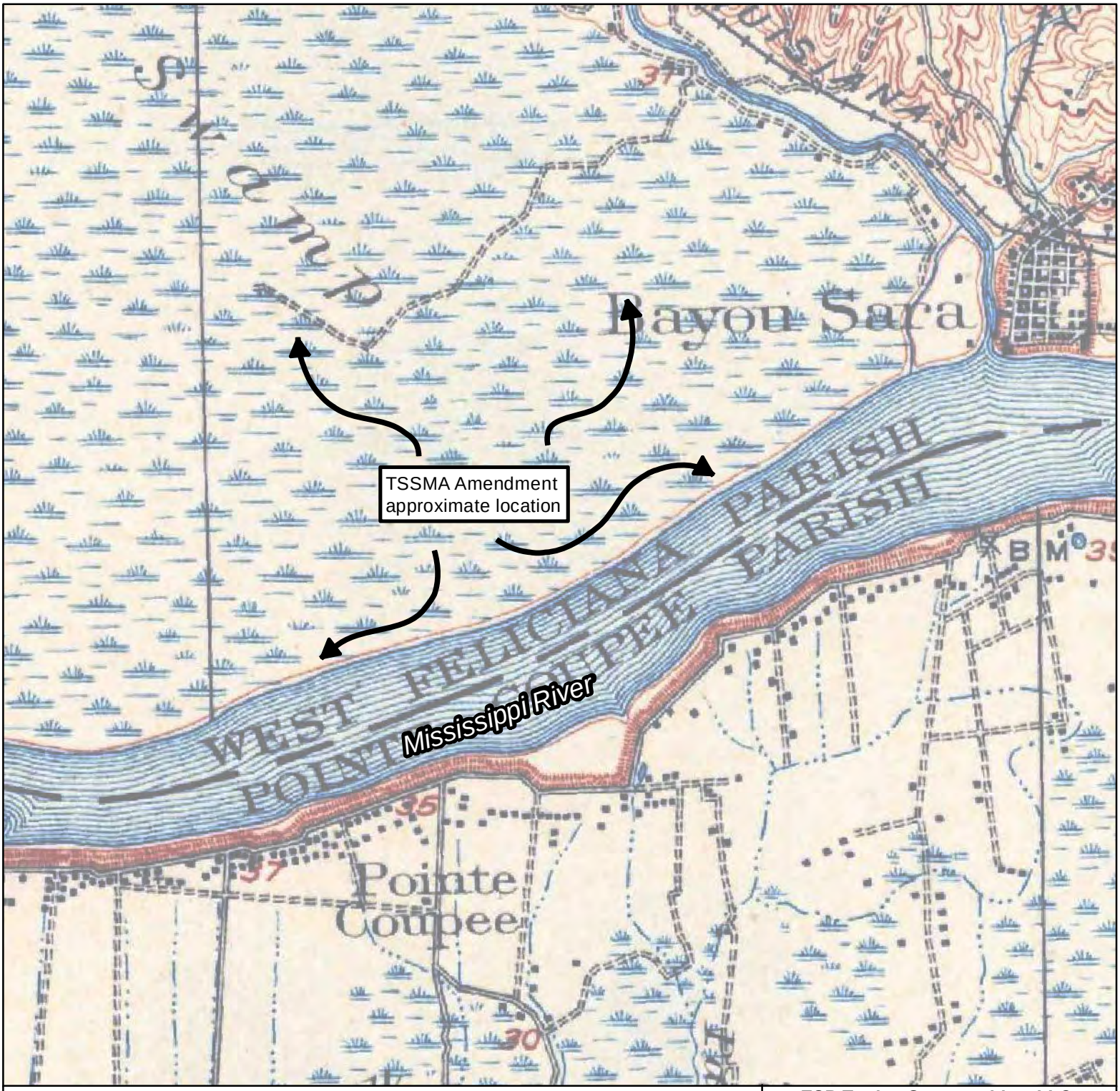
Southlake, TX

MITIGATION TYPES

W FELICIANA PARISH, LA

Created :	AGB/ArcView
Approved :	GLF
Date :	11/16/2022
Map No. :	

FIGURE 6



3,500 1,750 0 3,500 Feet

NRP

N

Map Notes:

1. The boundary shown is based on the boundary survey provided by the client.
2. Map projected to NAD83 UTM Zone 15.

ESP Tunica Opportunities, LLC

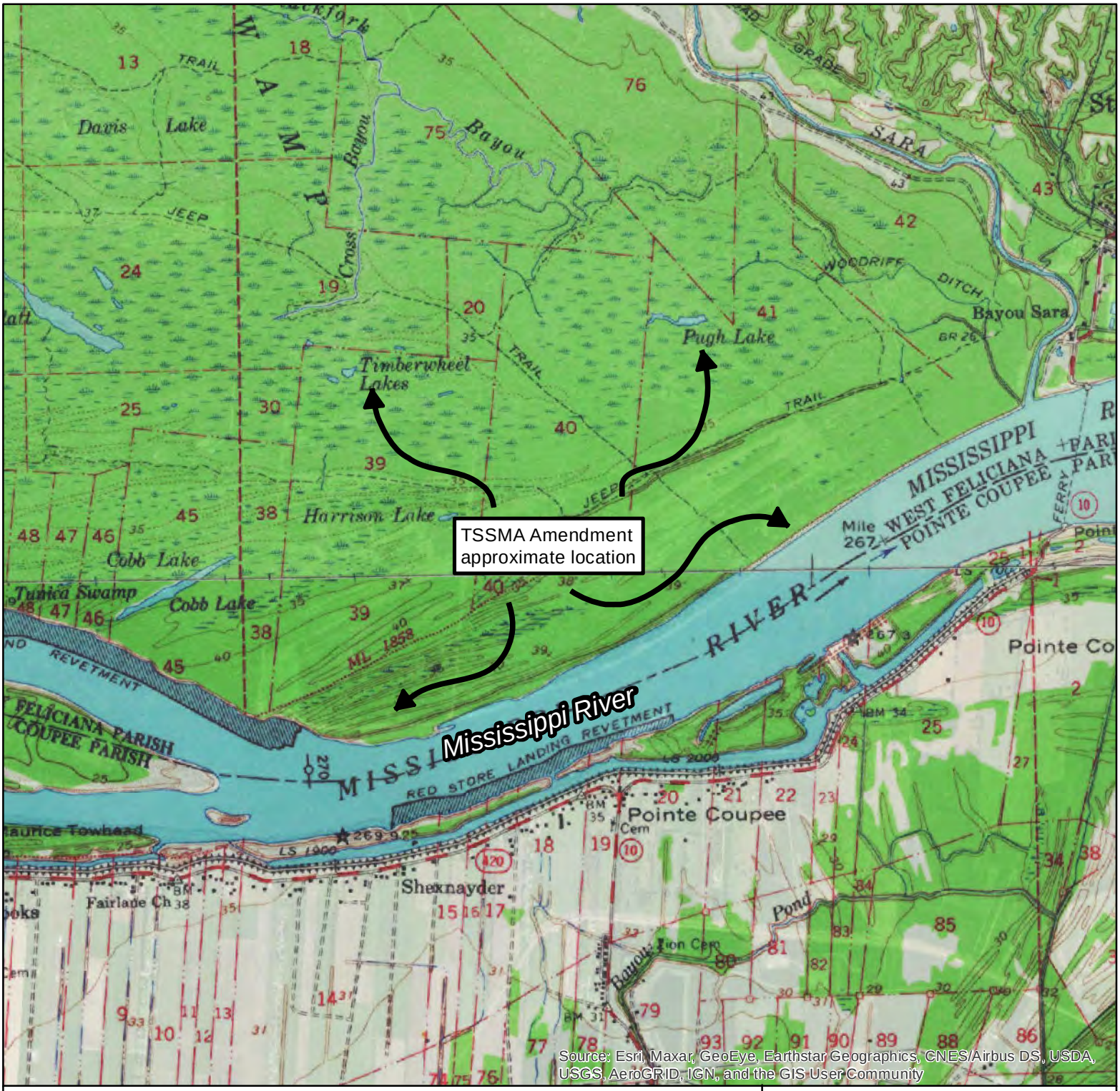
Southlake, TX

1906 USGS TOPO

W FELICIANA PARISH, LA

Created :	AGB/ArcView
Approved :	GLF
Date :	10/19/2021
Map No. :	

FIGURE 7



3,500 1,750 0 3,500 Feet

N

Map Notes:

1. The boundary shown is based on the boundary survey provided by the client.
2. Map projected to NAD83 UTM Zone 15.

ESP Tunica Opportunities, LLC

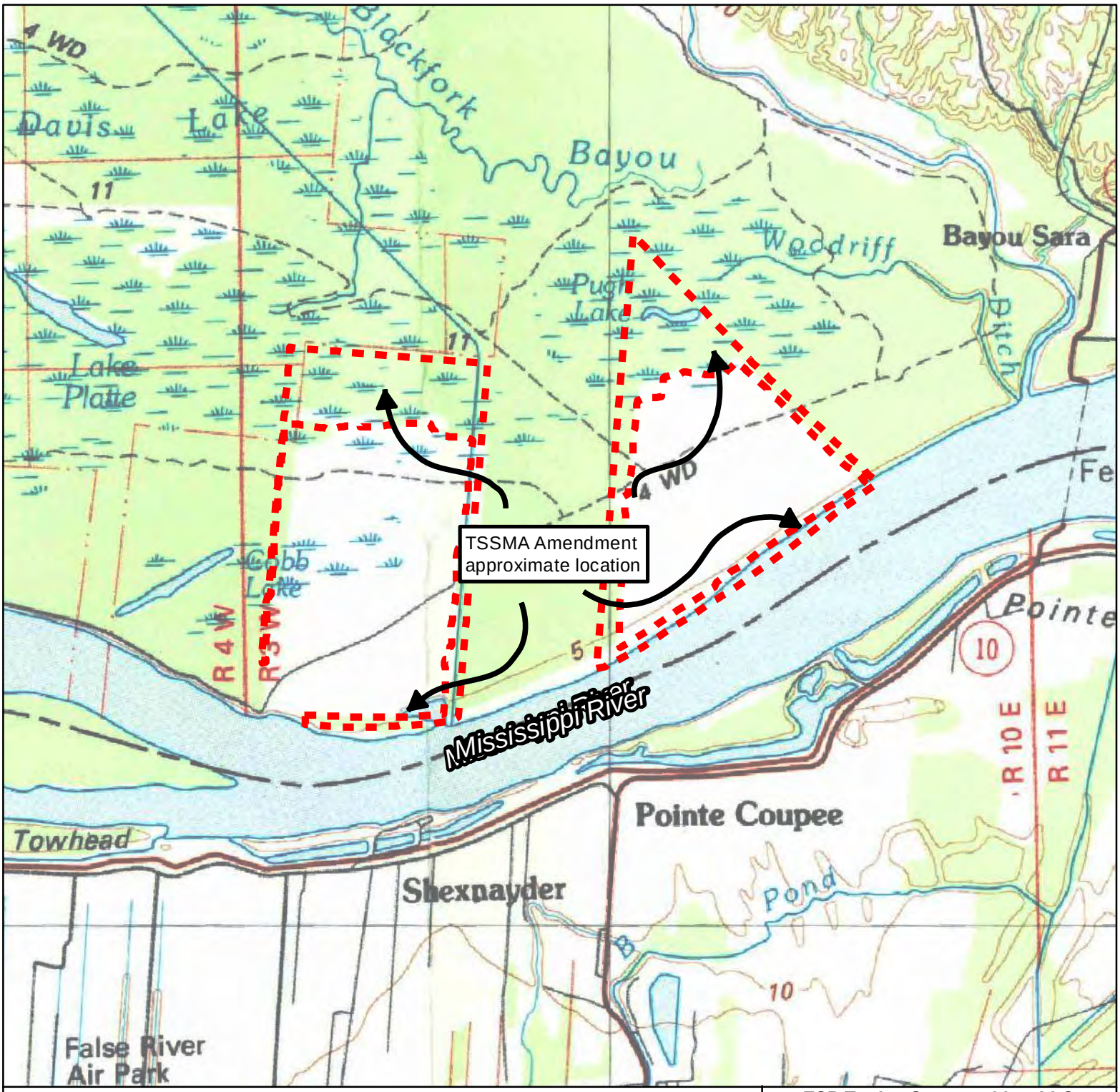
Southlake, TX

1965 USGS TOPO

W FELICIANA PARISH, LA

Created :	AGB/ArcView
Approved :	GLF
Date :	10/19/2021
Map No. :	

FIGURE 8



3,500 1,750 0 3,500 Feet

NRP

N

Map Notes:

1. The boundary shown is based on the boundary survey provided by the client.
2. Map projected to NAD83 UTM Zone 15.

ESP Tunica Opportunities, LLC

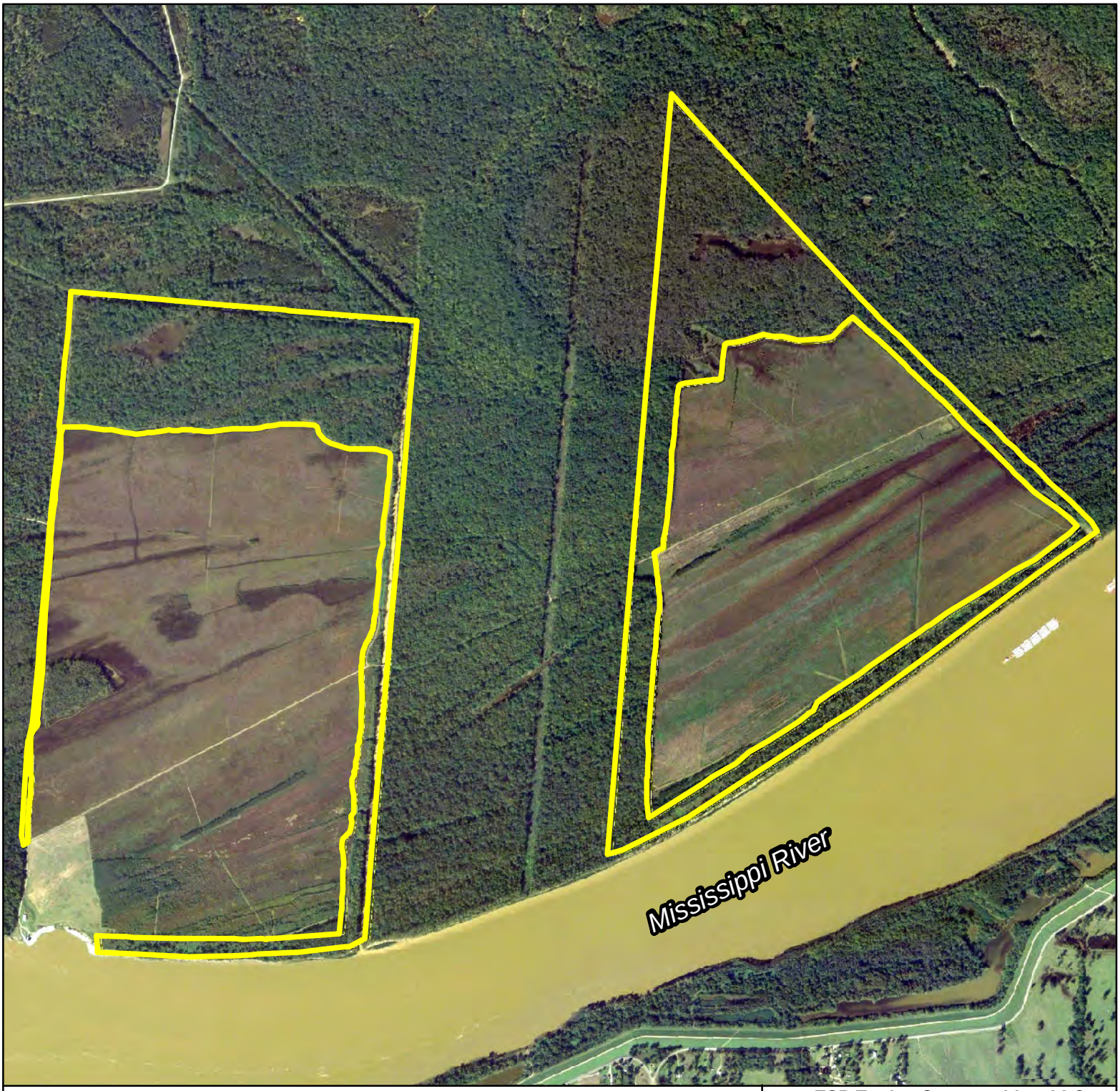
Southlake, TX

1983 USGS TOPO

W FELICIANA PARISH, LA

Created :	AGB/ArcView
Approved :	GLF
Date :	10/19/2021
Map No. :	

FIGURE 9



Legend

TSSMA Amendment (601.4 acres)

2,000 1,000 0 2,000 Feet

NRP

N

Map Notes:

1. The boundary shown is based on the boundary survey provided by the client.
2. Map projected to NAD83 UTM Zone 15.

ESP Tunica Opportunities, LLC

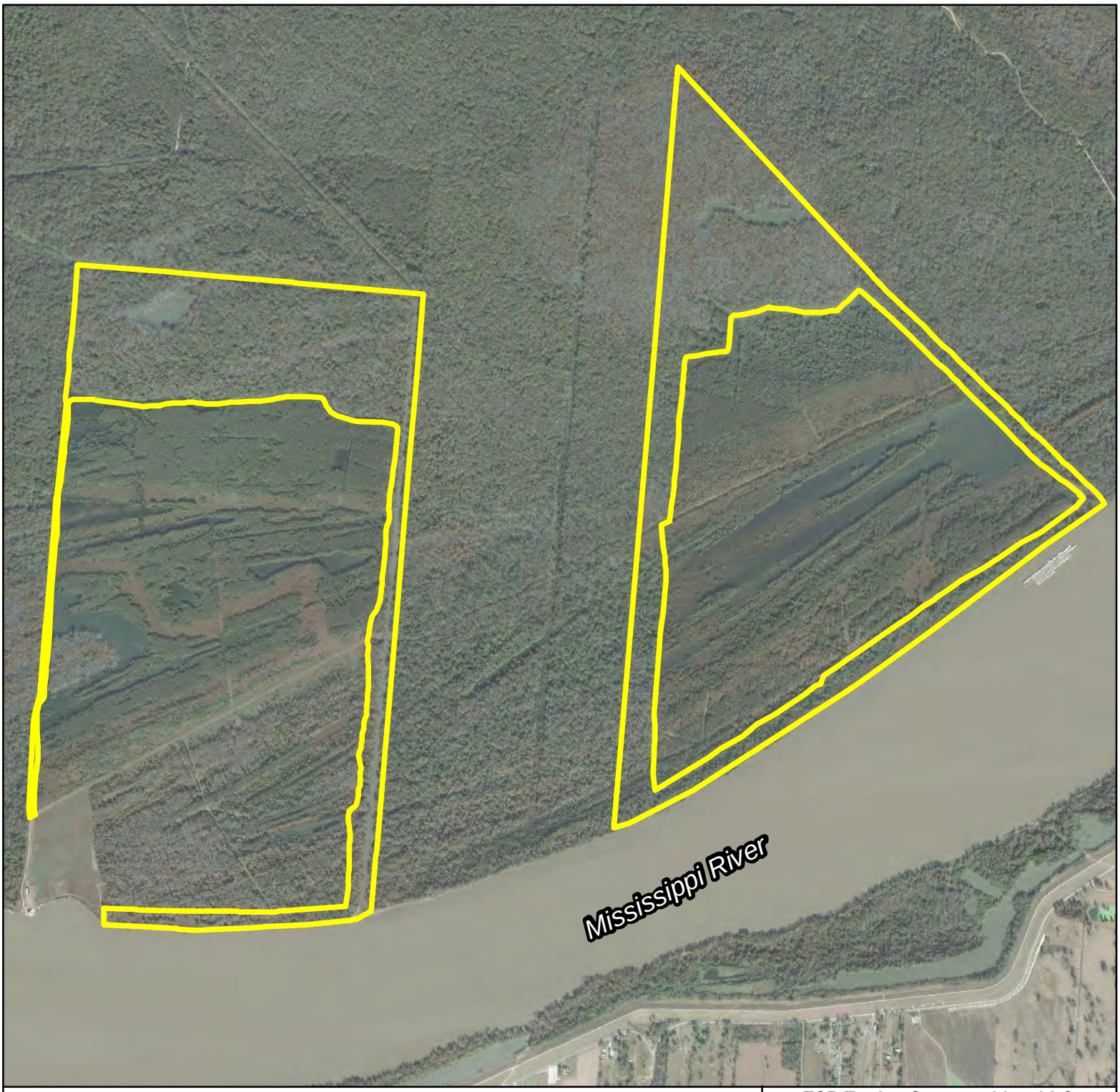
Southlake, TX

2006 GOOGLE EARTH AERIAL

W FELICIANA PARISH, LA

Created :	AGB/ArcView
Approved :	GLF
Date :	10/20/2021
Map No. :	

FIGURE 10



Legend

TSSMA Amendment (601.4 acres)

2,000 1,000 0 2,000 Feet

NRP

N

Map Notes:

1. The boundary shown is based on the boundary survey provided by the client.
2. Map projected to NAD83 UTM Zone 15.

ESP Tunica Opportunities, LLC

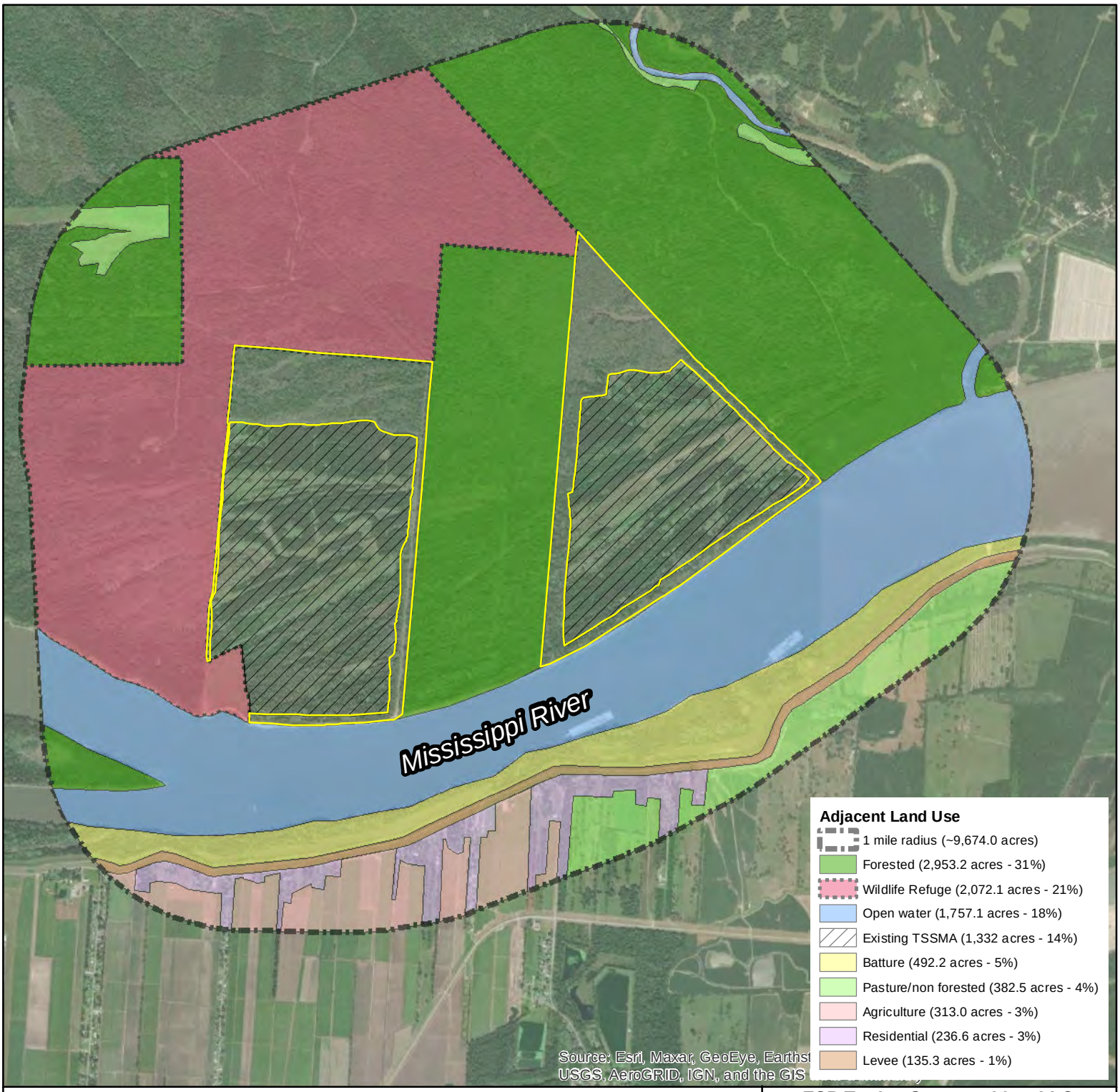
Southlake, TX

2019 GOOGLE EARTH AERIAL

W FELICIANA PARISH, LA

Created :	AGB/ArcView
Approved :	GLF
Date :	10/20/2021
Map No. :	

FIGURE 11



Legend

TSSMA Amendment (601.4 acres)

3,500 1,750 0 3,500 Feet

NRP

N

Map Notes:

1. The boundary shown is based on the boundary survey provided by the client.
2. Map projected to NAD83 UTM Zone 15.

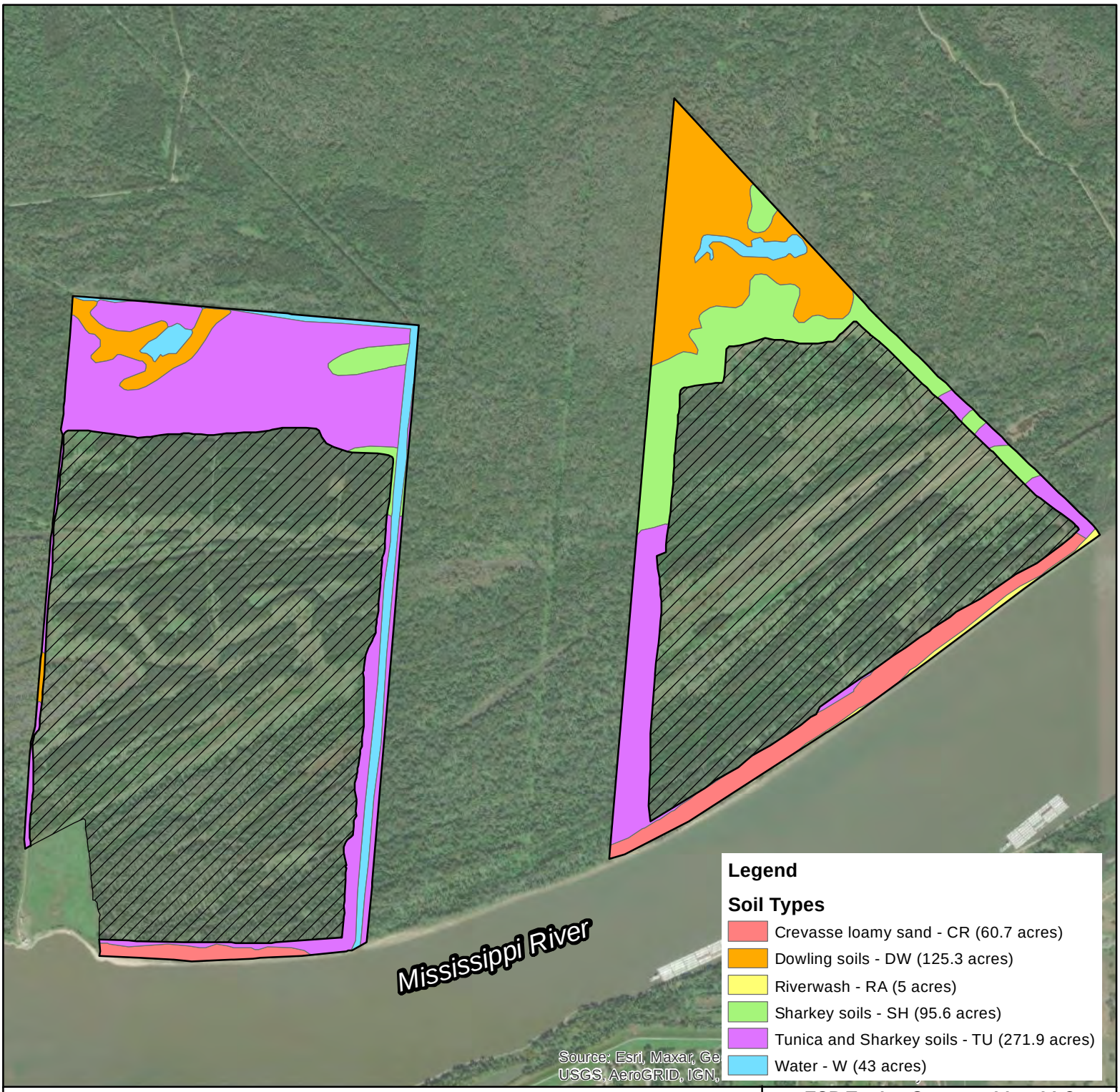
ESP Tunica Opportunities, LLC

Southlake, TX

ADJACENT LAND USE
1 MILE RADIUS
W FELICIANA PARISH, LA

Created :	AGB/ArcView
Approved :	GLF
Date :	10/20/2021
Map No. :	

FIGURE 12



Legend

TSSMA Amendment (601.4 acres)

Existing TSSMA Bank Boundary (1,332 acres)

2,000 1,000 0 2,000 Feet

NRP

N

Map Notes:

1. The boundary shown is based on the boundary survey provided by the client.
2. Map projected to NAD83 UTM Zone 15.

ESP Tunica Opportunities, LLC

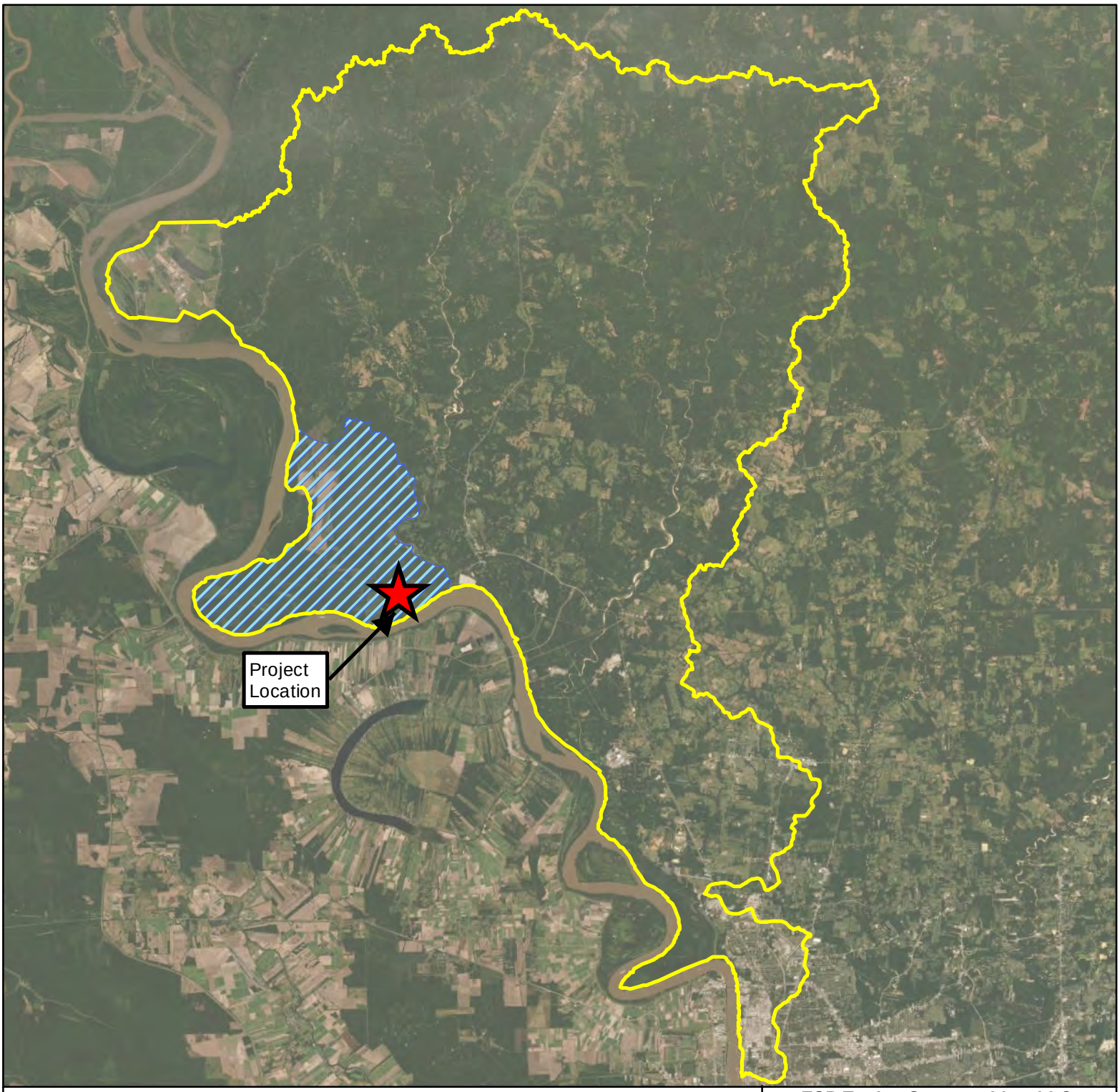
Southlake, TX

SOIL TYPES

W FELICIANA PARISH, LA

Created :	AGB/ArcView
Approved :	GLF
Date :	10/20/2021
Map No. :	

FIGURE 13



Legend

- Bayou Sara Watershed (HUC 8)
- Tunica Swamp Watershed (HUC 12)

6.0 1.5 0 6.0 Miles

N

Map Notes:

1. The boundary shown is based on the boundary survey provided by the client.
2. Map projected to NAD83 UTM Zone 15.

ESP Tunica Opportunities, LLC

Southlake, TX

WATERSHED MAP

W FELICIANA PARISH, LA

Created :	AGB/ArcView
Approved :	GLF
Date :	10/20/2021
Map No. :	

FIGURE 14

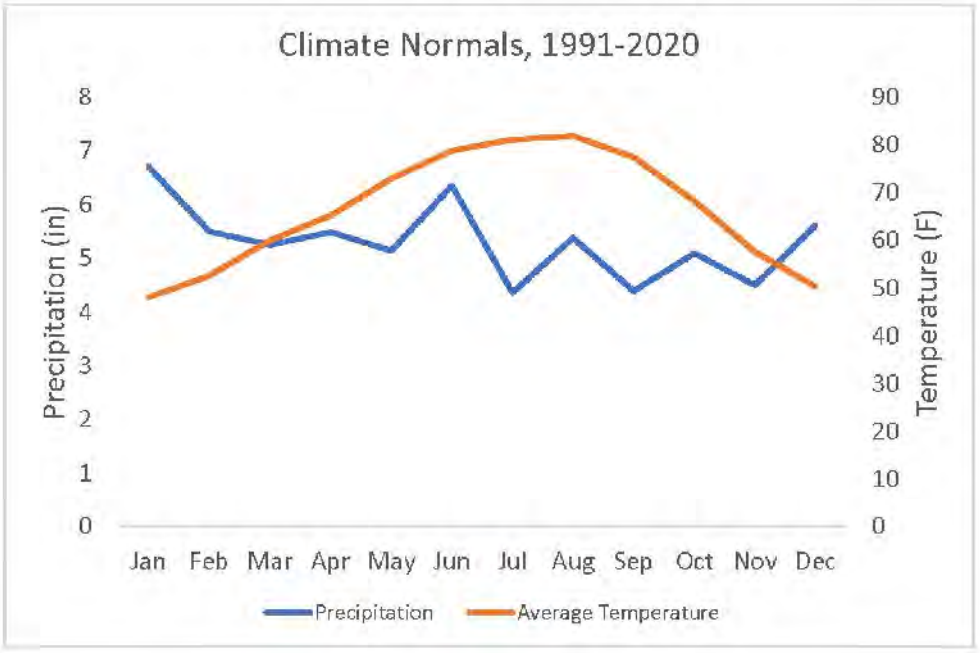
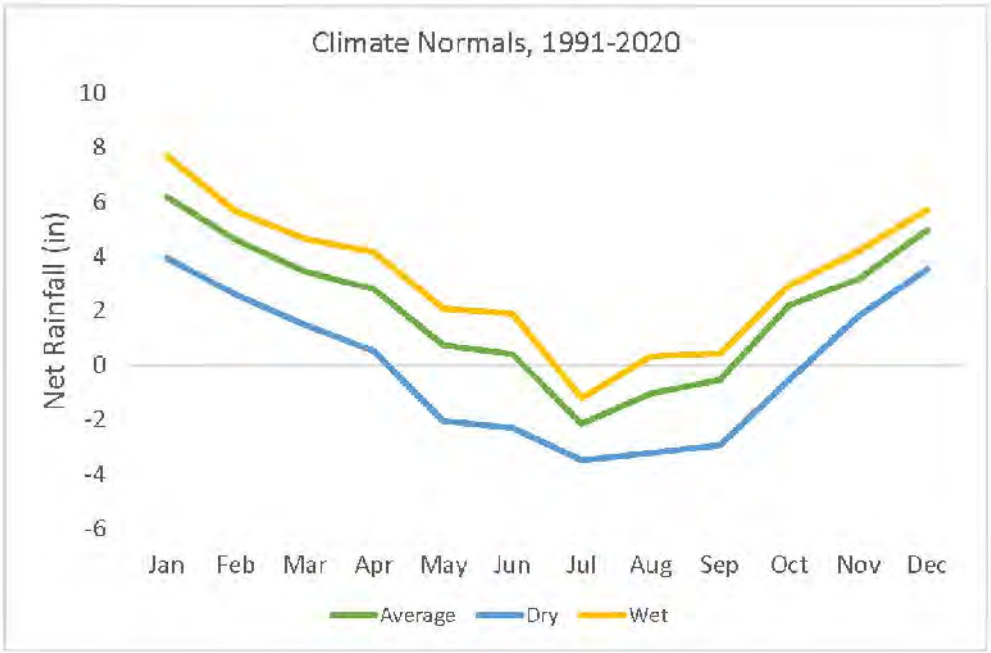


Figure H3



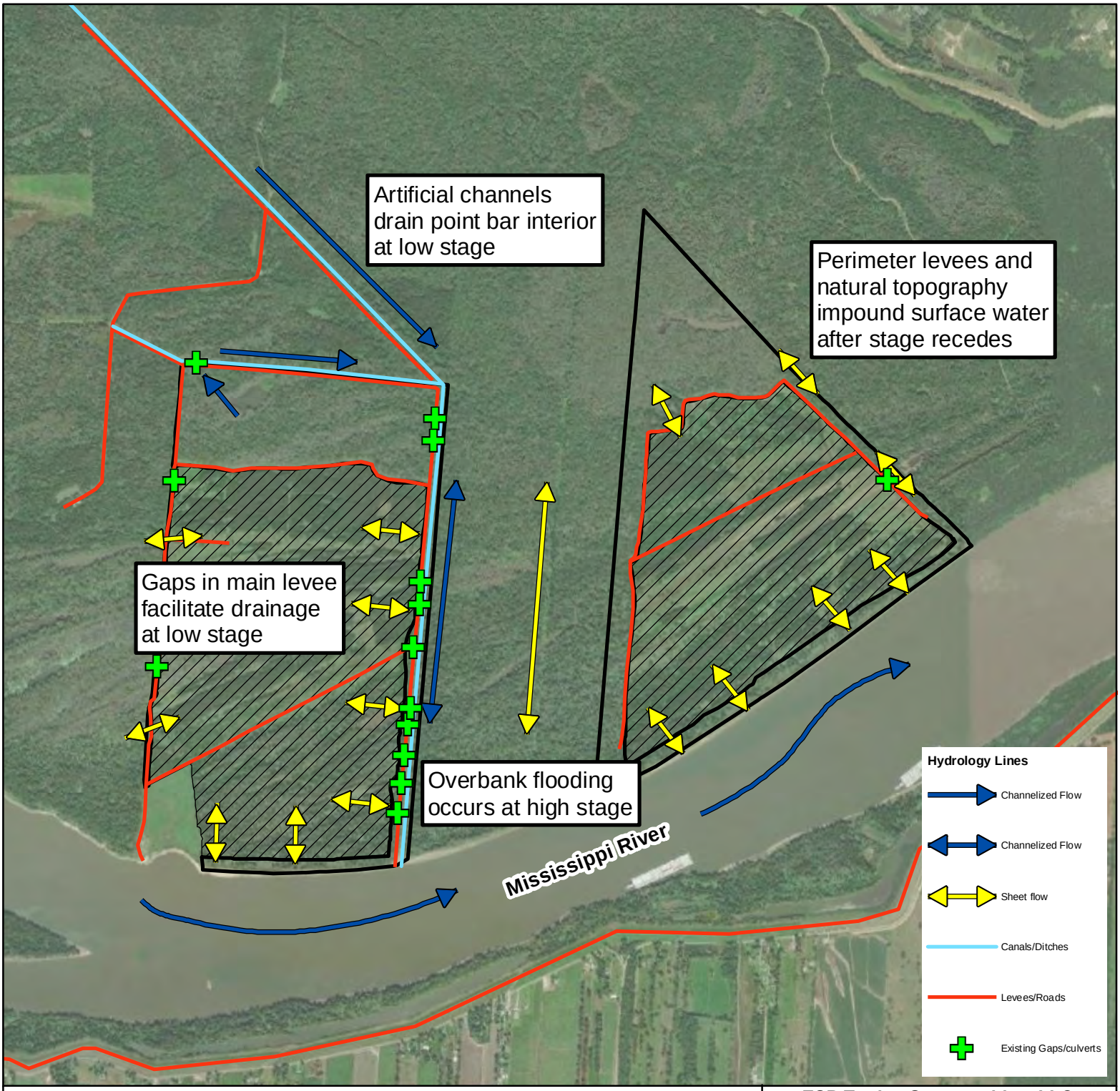
Map Notes:

1. The boundary shown is based on the boundary survey provided by the client.
2. Map projected to NAD83 UTM Zone 15.

N

ESP Tunica Opportunities, LLC	
Southlake, TX	
CLIMATE GRAPHS	
W FELICIANA PARISH, LA	
Created :	AGB/ArcView
Approved :	GLF
Date :	10/20/2021
Map No. :	

FIGURE 15



Legend

- TSSMA Amendment (601.4 acres)
- Existing TSSMA Bank Boundary (1,332 acres)

2,500 1,250 0 2,500 Feet

NRP

N

Map Notes:

1. The boundary shown is based on the boundary survey provided by the client.
2. Map projected to NAD83 UTM Zone 15.

ESP Tunica Opportunities, LLC

Southlake, TX

AREA HYDROLOGY

W FELICIANA PARISH, LA

Created :	AGB/ArcView
Approved :	GLF
Date :	10/18/2021
Map No. :	

FIGURE 16

Legend

TSSMA Amendment (601.4 acres)

2,500 1,250 0 2,500 Feet

NRP

N

Map Notes:

1. The boundary shown is based on the boundary survey provided by the client.
2. Map projected to NAD83 UTM Zone 15.

ESP Tunica Opportunities, LLC

Southlake, TX

34 FT CONTOUR

W FELICIANA PARISH, LA

Created :	AGB/ArcView
Approved :	GLF
Date :	10/18/2021
Map No. :	

FIGURE 17

Legend

TSSMA Amendment (601.4 acres)

2,500 1,250 0 2,500 Feet

NRP

N

Map Notes:

1. The boundary shown is based on the boundary survey provided by the client.
2. Map projected to NAD83 UTM Zone 15.

ESP Tunica Opportunities, LLC

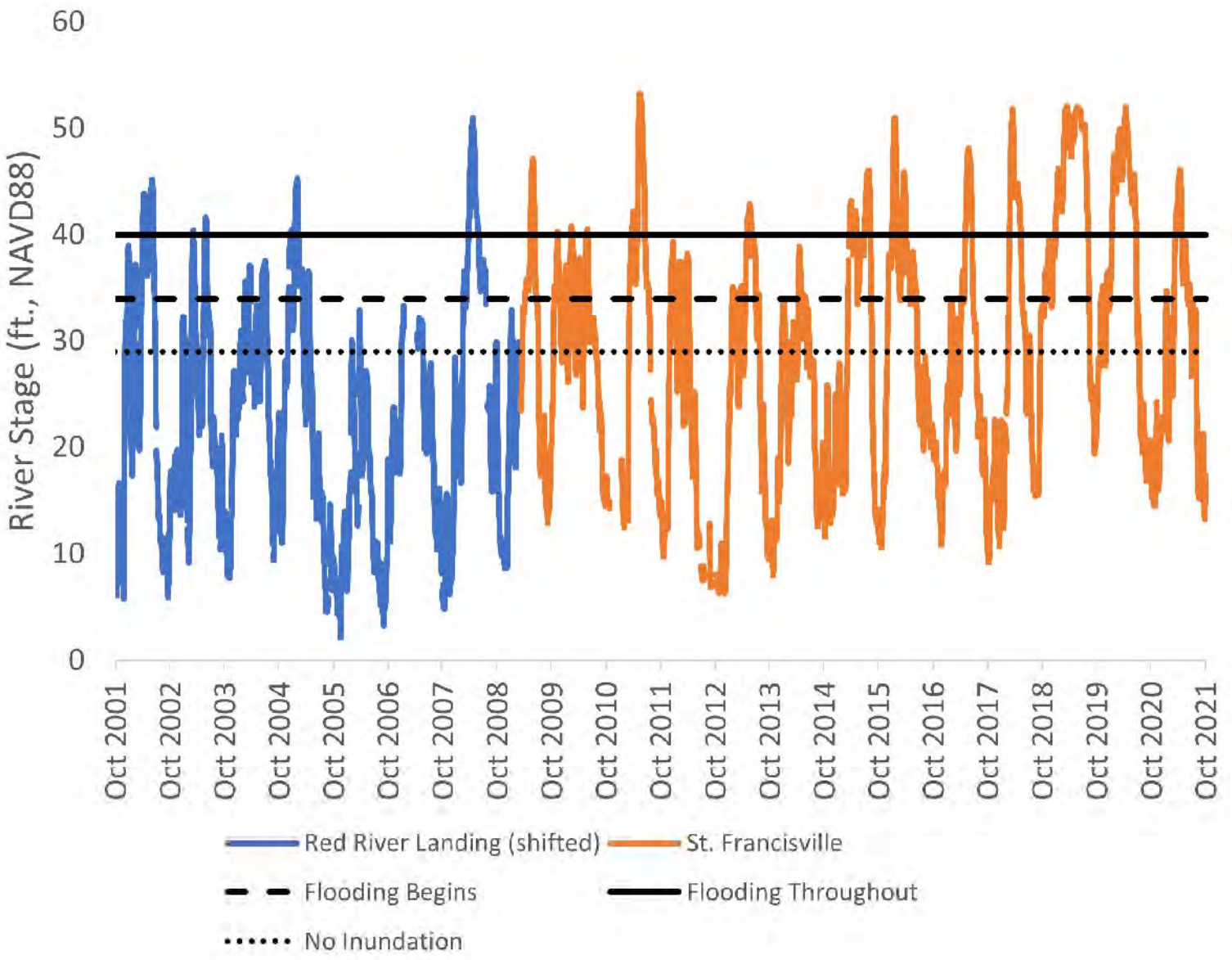
Southlake, TX

40 FT CONTOUR

W FELICIANA PARISH, LA

Created :	AGB/ArcView
Approved :	GLF
Date :	10/18/2021
Map No. :	

FIGURE 18



Map Notes:

1. The boundary shown is based on the boundary survey provided by the client.
2. Map projected to NAD83 UTM Zone 15.

NRP

N

ESP Tunica Opportunities, LLC

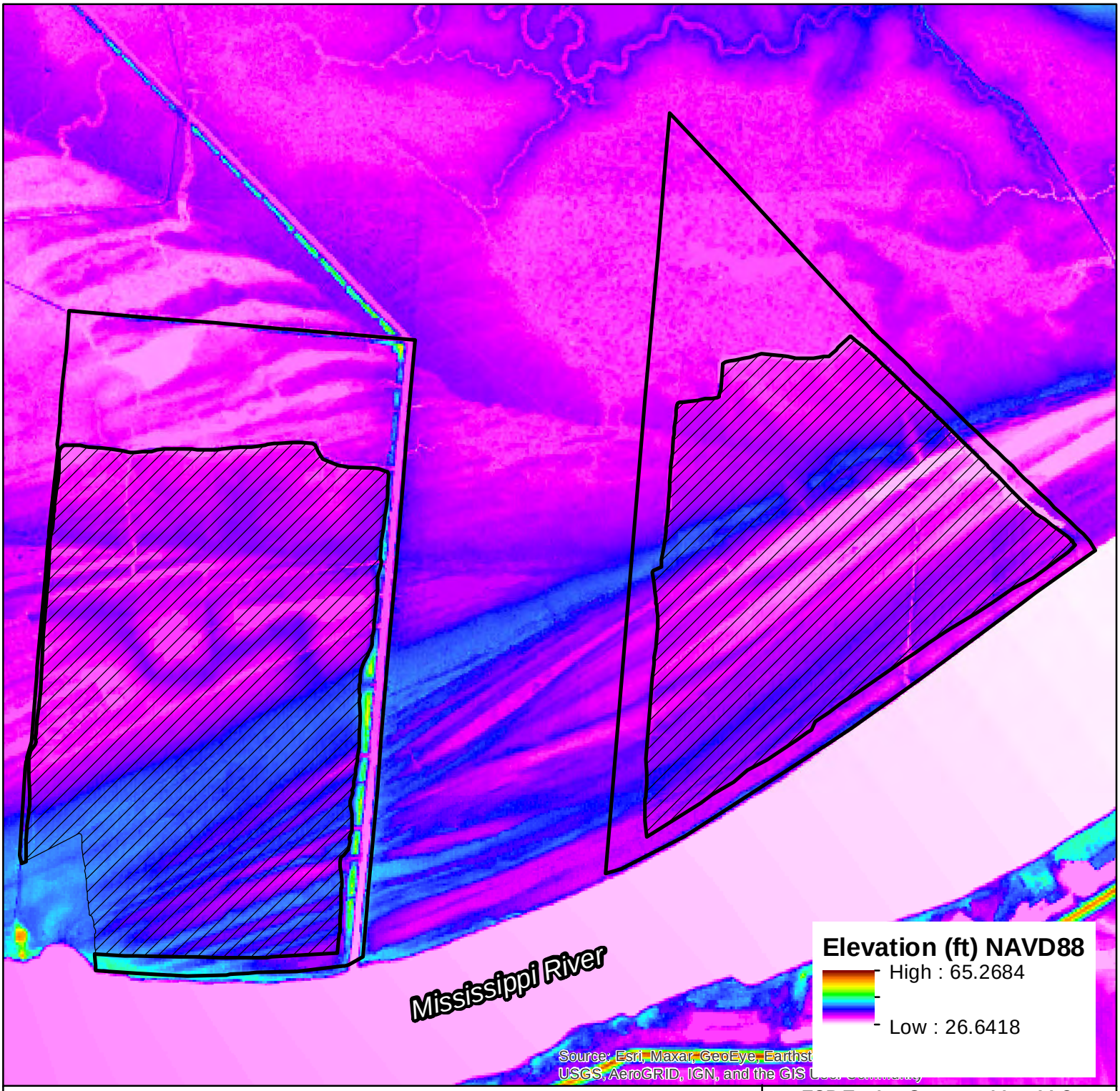
Southlake, TX

RIVER STAGE GRAPH

W FELICIANA PARISH, LA

Created :	AGB/ArcView
Approved :	GLF
Date :	10/18/2021
Map No. :	

FIGURE 19



Legend

- TSSMA Amendment (601.4 acres)
- Existing TSSMA Bank Boundary (1,332 acres)

2,000 1,000 0 2,000 Feet

NRP

N

Map Notes:

1. The boundary shown is based on the boundary survey provided by the client.
2. Map projected to NAD83 UTM Zone 15.

ESP Tunica Opportunities, LLC

Southlake, TX

LIDAR MAP

W FELICIANA PARISH, LA

Created :	AGB/ArcView
Approved :	GLF
Date :	10/21/2021
Map No. :	

FIGURE 20

Legend

TSSMA Amendment (601.4 acres)

2,000 1,000 0 2,000 Feet

N

Map Notes:

1. The boundary shown is based on the boundary survey provided by the client.
2. Map projected to NAD83 UTM Zone 15.

ESP Tunica Opportunities, LLC

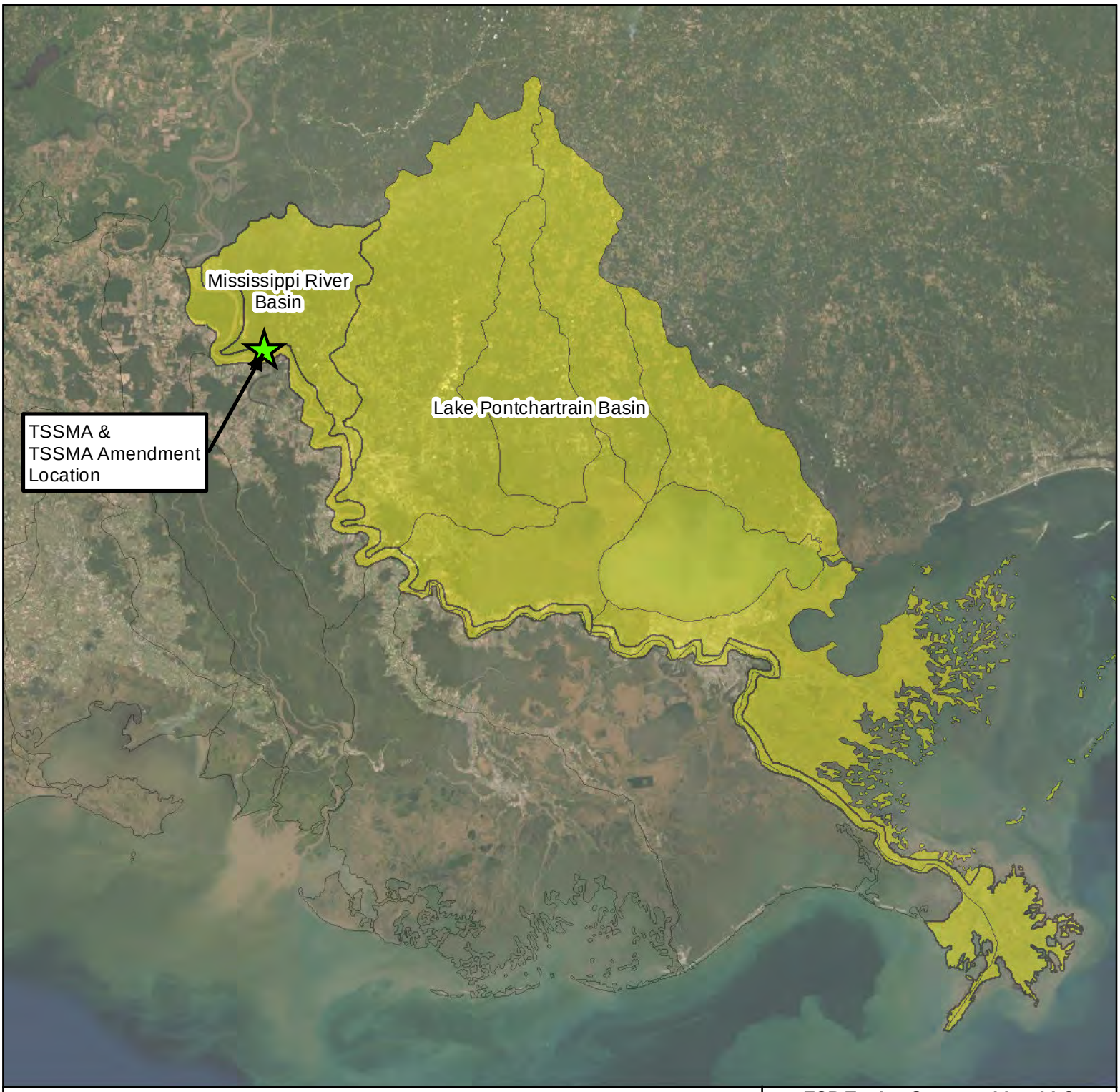
Southlake, TX

41 FT CONTOUR

W FELICIANA PARISH, LA

Created :	AGB/ArcView
Approved :	GLF
Date :	10/18/2021
Map No. :	

FIGURE 21



Legend

Service Area

25.0 12.5 0 25.0 Miles

NRP

N

Map Notes:

1. The boundary shown is based on the boundary survey provided by the client.
2. Map projected to NAD83 UTM Zone 15.

ESP Tunica Opportunities, LLC

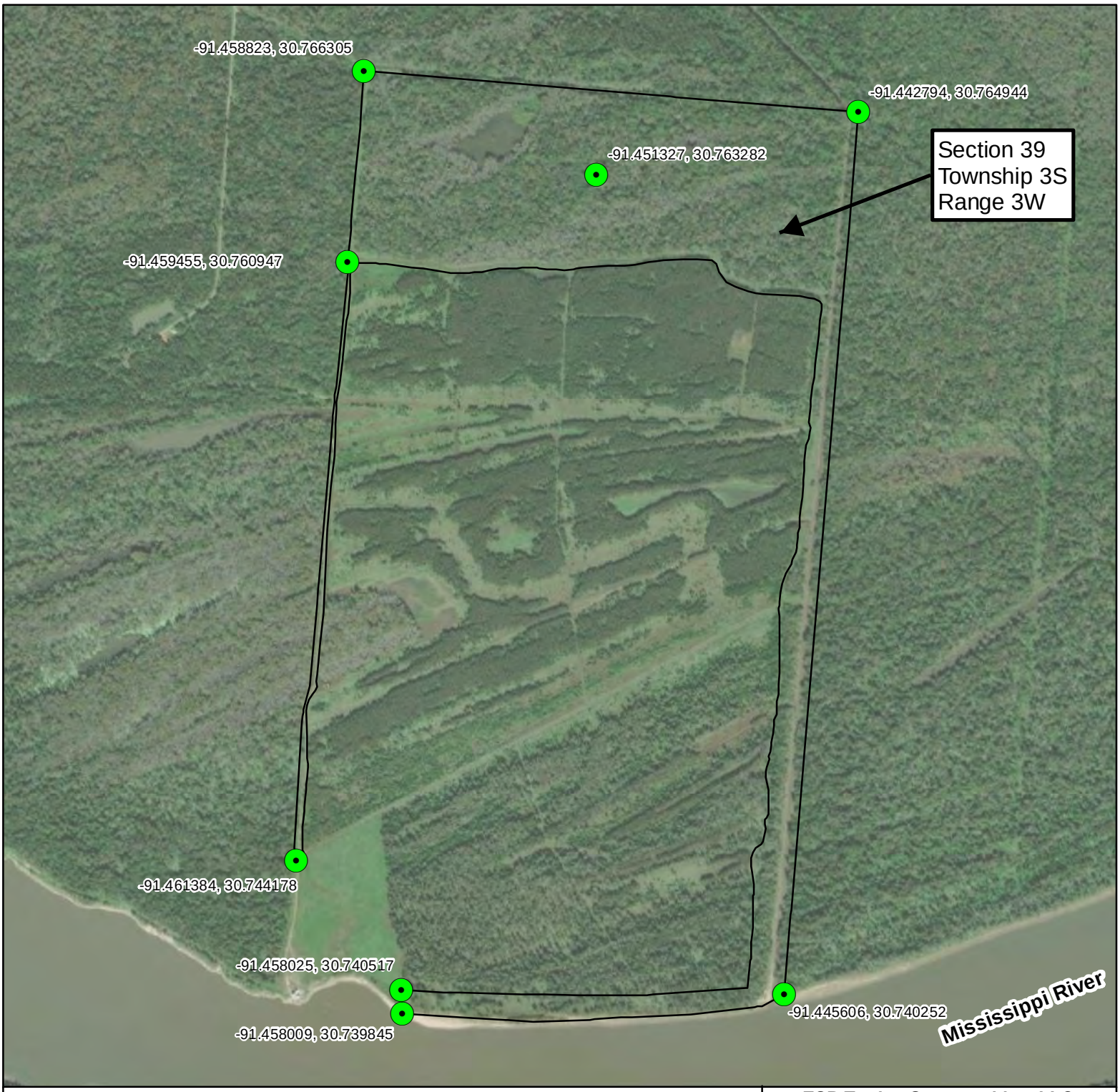
Southlake, TX

SERVICE AREA

W FELICIANA PARISH, LA

Created :	AGB/ArcView
Approved :	GLF
Date :	10/20/2021
Map No. :	

FIGURE 22



Legend

TSSMA Amendment (601.4 acres)

Corner Boundary Points

1,400 700 0 1,400 Feet

N

Map Notes:

1. The boundary shown is based on the boundary survey provided by the client.
2. Map projected to NAD83 UTM Zone 15.

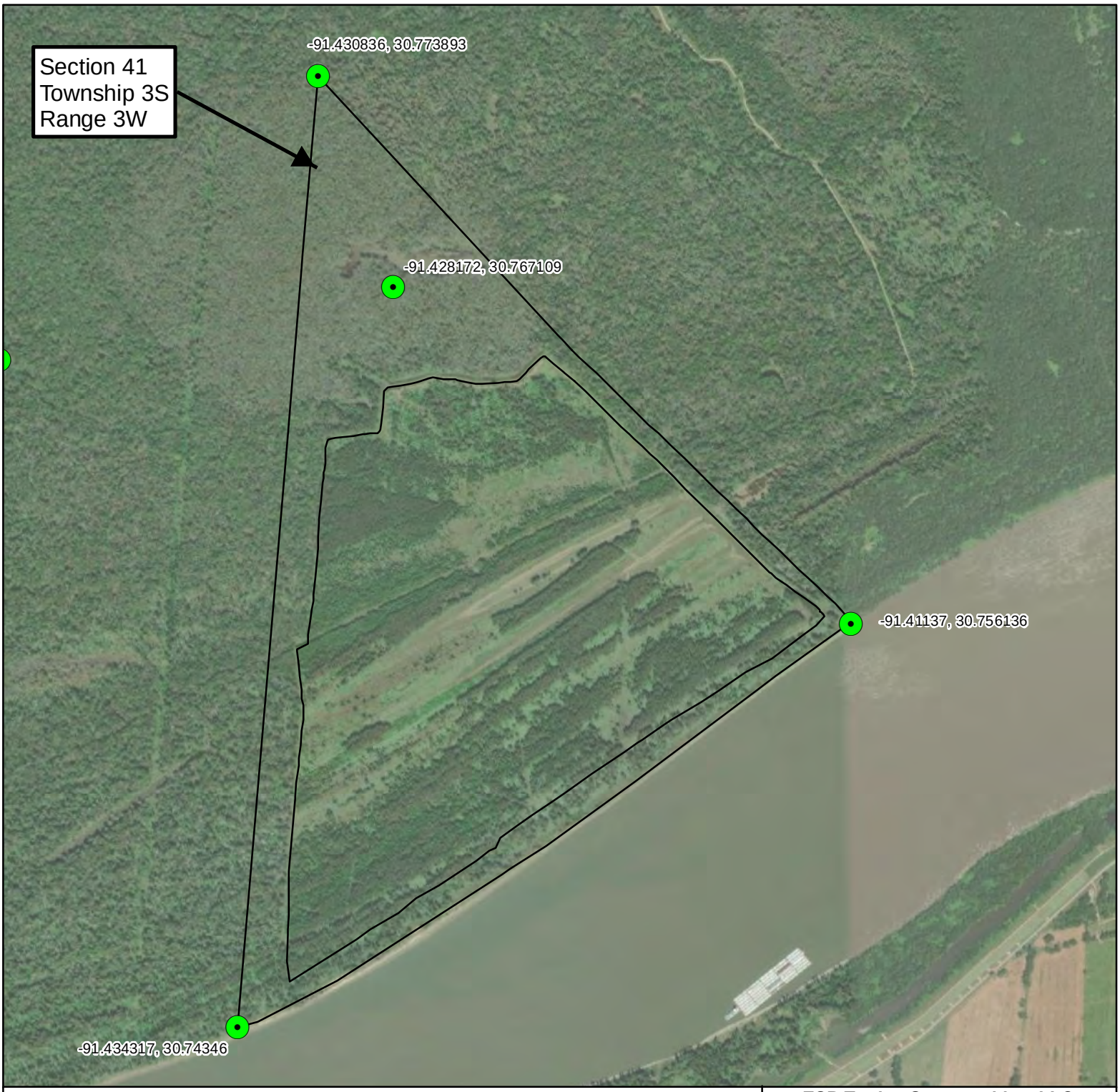
ESP Tunica Opportunities, LLC

Southlake, TX

CONSERVATION SERVITUDE
WEST TRACT
W FELICIANA PARISH, LA

Created :	AGB/ArcView
Approved :	GLF
Date :	10/18/2021
Map No. :	

FIGURE 23



Legend

TSSMA Amendment (601.4 acres)

Corner Boundary Points

1,600 800 0 1,600 Feet

N

Map Notes:

1. The boundary shown is based on the boundary survey provided by the client.
2. Map projected to NAD83 UTM Zone 15.

ESP Tunica Opportunities, LLC

Southlake, TX

CONSERVATION SERVITUDE
EAST TRACT
W FELICIANA PARISH, LA

Created :	AGB/ArcView
Approved :	GLF
Date :	10/18/2021
Map No. :	

FIGURE 24

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, NEW ORLEANS DISTRICT
7400 LEAKE AVE
NEW ORLEANS, LA 70118-3651

December 14, 2022

Regulatory Division
Jurisdiction and Enforcement Branch

Mr. Gregg Fell
Natural Resource Professionals, LLC
7330 Highland Road, Suite B-1
Baton Rouge, Louisiana 70808

Dear Mr. Fell:

Reference is made to your request, on behalf of ESP, LLC, for a U.S. Army Corps of Engineers' (Corps) jurisdictional determination on property located in Section 15, Township 3 South, Range 3, West Feliciana Parish, Louisiana (enclosed map). Specifically, this property is identified as Tunica Swamp Silos Mitigation bank addendum, a 601-acre site on and north of the Mississippi River north of New Roads.

Based on review of recent maps, aerial photography, soils data, and the delineation report provided with your request, we have determined that part of the property contains wetlands and non-wetland waters that may be subject to Corps' jurisdiction. The approximate limits of the wetlands and non-wetland waters are designated in red and blue, respectively, on the map. A Department of the Army (DA) permit under Section 404 of the Clean Water Act will be required prior to the deposition or redistribution of dredged or fill material into waters of the U.S. Additionally, wetlands and non-wetlands waters may be subject to Corps' jurisdiction under Section 10 of the Rivers and Harbors Act (RHA) are indicated in blue on the map. A Department of the Army (DA) permit will be required prior to any work in waters subject to Corps' jurisdiction under Section 10 of the RHA.

The delineation included herein has been conducted to identify the location and extent of the aquatic resource boundaries and/or the jurisdictional status of aquatic resources for purposes of the Clean Water Act for the particular site identified in this request. This delineation and/or jurisdictional determination may not be valid for the Wetland Conservation Provisions of the Food Security Act of 1985, as amended. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should discuss the applicability of a certified wetland determination with the local USDA service center, prior to starting work.

You and your client are advised that this preliminary jurisdictional determination is valid for a period of 5 years from the date of this letter unless new information warrants revision prior to the expiration date. Additionally, this determination is only valid for the identified project or individual(s) only and is not to be used for decision-making by any other individual or entity.

Should there be any questions concerning these matters, please contact Mr. Bill Nethery at (504) 862-1267 and reference our Account No. MVN-2021-00058-SQ. If you

have specific questions regarding your permit application, please contact Mr. Brian Breaux of our Special Projects and Policy Team at (504) 862-1938.

Sincerely,

Jon Barmore [redacted]

for Martin S. Mayer
Chief, Regulatory Division

Enclosures

US Army Corps of Engineers

Preliminary

Determination

USACE I.H.

Date: December 2, 2022

By: William Nethery

For: Gregg Fell obo ESP, LLC

Acct#: MVN-2021-00058-SQ

(see legend below) (1 of 2)

Legend

- Project Boundary (601.4 acres)
- Non Wetlands (Above OHWM) (21.6 acres)
- Non Wetlands (Below OHWM) (24.5 acres)
- Wetlands (At/below the 14-day flood) (4.1 acres)
- Wetlands (Above OHWM) (0.002 acres)
- Wetlands (Below OHWM) (211.6 acres)
- Other Waters (32.7 acres)
- Existing Waterways

OHWM = 41 ft NAVD

14-day Flood = 39 ft

1,400 700 0 1,400 Feet

NRP

N

Map Notes:

1. The boundary shown is based on the boundary survey provided by the client.
2. Map projected to NAD83 UTM Zone 15.

ESP, LLC

Southlake, TX

POTENTIAL WETLAND MAP

W FELICIANA PARISH, LA

Created :	AGB/ArcView
Approved :	GLF
Date :	07/08/2022
Map No. :	

FIGURE 6

US Army Corps of Engineers
Preliminary Jurisdictional Determination

USACE I.H.

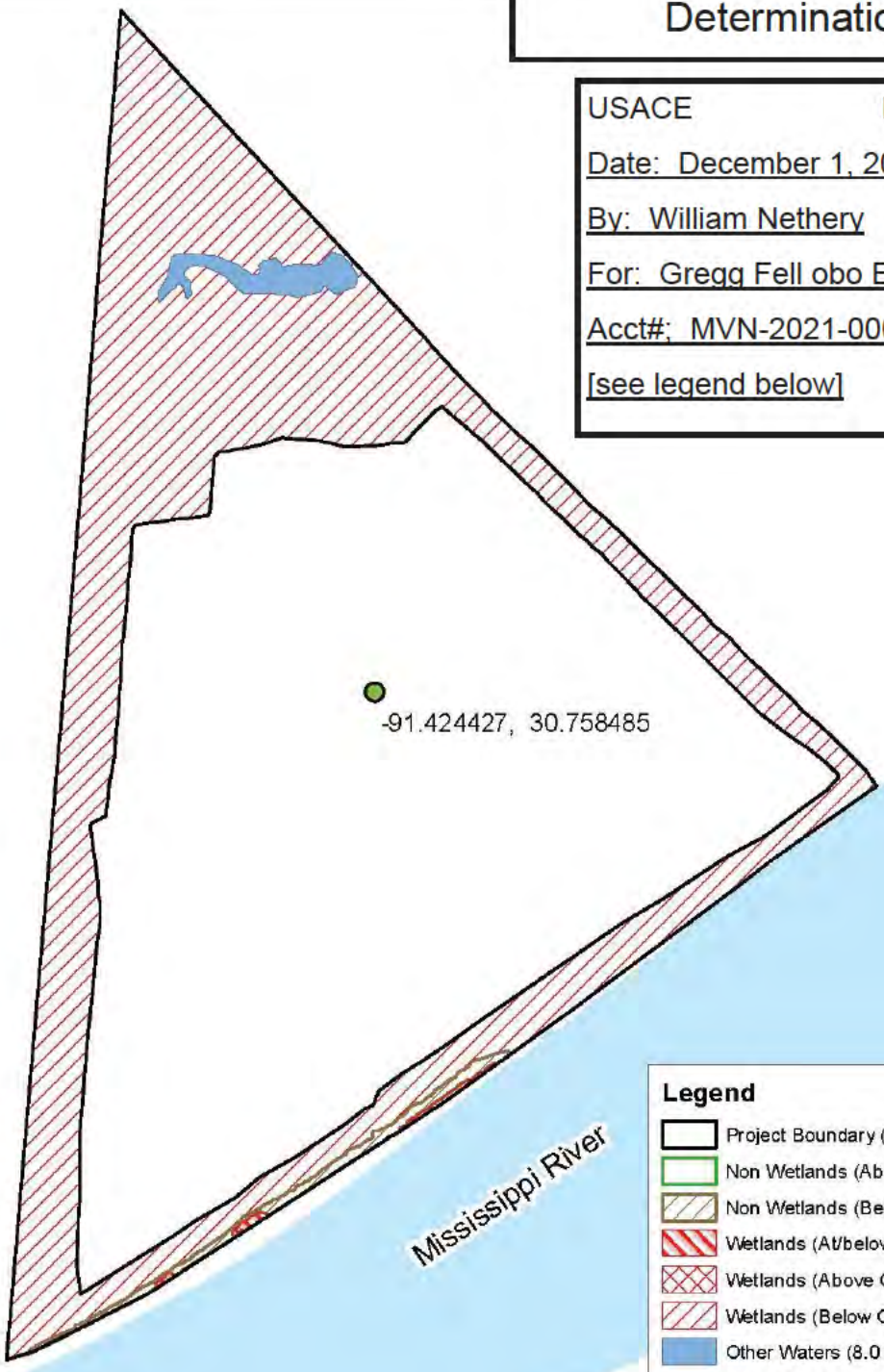
Date: December 1, 2022

By: William Nethery

For: Gregg Fell obo ESP, LLC

Acct#: MVN-2021-00058-SQ (2 of 2)

[see legend below]



Legend

- Project Boundary (601.4 acres)
- Non Wetlands (Above OHWM)
- Non Wetlands (Below OHWM) (6.7 acres)
- Wetlands (At/below the 14-day flood) (0.6 acres)
- Wetlands (Above OHWM)
- Wetlands (Below OHWM) (291.6 acres)
- Other Waters (8.0 acres)
- Mississippi River

OHWM = 41 ft NAVD
14-day Flood = 39 ft

1,500 750 0 1,500 Feet

NRP

N

ESP, LLC

Southlake, TX

POTENTIAL WETLAND MAP

W FELICIANA PARISH, LA

Created :	AGB/ArcView
Approved :	GLF
Date :	07/08/2022
Map No. :	

FIGURE 7

Map Notes:
1. The boundary shown is based on the boundary survey provided by the client.
2. Map projected to NAD83 UTM Zone 15.