LAKE CREEK MITIGATION BANK PROSPECTUS

SWG-2018-00326

MONTGOMERY COUNTY
TEXAS

SPONSORED BY
DELTA LAND SERVICES, LLC
1090 CINCLARE DRIVE
PORT ALLEN, LOUISIANA 70767

APRIL 22, 2020

DELTA LAND SERVICES

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1.0 INTRODUCTION

Delta Land Services, LLC (DLS) has prepared this Prospectus in accordance with 33 CFR § 332.8(d)(2)[1] to establish, operate, and maintain the proposed 225.2-acre Lake Creek Mitigation Bank (Bank) (**Appendix A, Figures 1 and 2**). DLS is the Bank Sponsor (Sponsor) and Larry Jacobs is the Property Owner (**Table 1**). The Bank will provide riverine forested wetland and forested riparian buffer (stream) restoration for compensatory mitigation for unavoidable, permitted impacts to "Waters of the United States" [2] per 33 CFR § 332.3 (a)(1) and 33 CFR § 332.3 (b)(1)[3]. The Bank mitigation types will be riverine forest preservation, riverine forest enhancement, riverine forest rehabilitation, riverine forest re-establishment, riparian buffer re-establishment, and riparian buffer preservation (**Appendix A, Figure 3**).

Table 1: Bank Sponsorship / Ownership, Lake Creek Mitigation Bank

Name of Sponsor	Winship Songy Delta land Services, LLC	Point of Contact	Chad Butler Delta Land Services, LLC	Property Owner	Larry Jacobs
Mailing Address	1090 Cinclare Dr. Port Allen, LA 70767	Mailing Address	6750 W. Loop S. Freeway, Suite 780, Bellaire, TX 77401	Mailing Address	14372 Liberty Street Montgomery, TX 77356
Phone Number	225.388.5187	Phone Number	281.899.5596	Phone Number	NA
Fax Number	225-343-3200	Fax Number	225-343-3200	Fax Number	NA
Email Address	Winship@deltaland-services.com	Email Address	Chad@deltaland-services.com	Email Address	NA

[1] 33 CFR § 332.8 (d) (2) summarizes the information regarding a proposed mitigation bank at a sufficient level of detail to support informed public and IRT comment. Information included (but not limited too) in a prospectus are the objectives, establishment, operation, service area, general need, technical feasibility, ownership, long-term management, sponsor qualifications, ecological suitability, and water rights.

[2] 33 CFR § 328 defines waters of the United States as it applies to the jurisdictional limits of the authority of the Corps of Engineers under the Clean Water Act. Waters of the United States include those waters listed in 33 CFR § 328(a). The lateral limits of jurisdiction in those waters may be divided into three categories (i.e., territorial seas, tidal waters, and non-tidal waters, which are further described in 33 CFR § 328.4 (a), (b), and (c).

[3] 33 CFR § 332.3 (a)(1) and 33 CFR § 332.3 (b)(1) described general compensatory mitigation requirements; resource types and location of compensatory mitigation; and watershed approach.

1.1 SUPPORTING DOCUMENTATION

Supporting documentation is included with this Prospectus as appendices to the document. **Appendix A** includes maps and figures. **Appendix B** includes the Approved Jurisdictional Determination (AJD) and waters of the U.S. verification issued by the USACE-Galveston District (CESWG) on March 18, 2020. **Appendix C** includes the habitat baseline and predicted habitat assessments for the Forested Riverine Interim Hydrogeomorphic (iHGM) Assessment Model and CESWG Stream Tool**.** Note: the baseline iHGM has not been verified by CESWG; it was submitted in July 2018. **Appendix D** includes a background cultural resources review. **Appendix E** includes a title opinion and signed and stamped survey plat of the Lake Creek Mitigation Bank subject property.

2.0 GOALS AND OBJECTIVES

The primary goals are long-term sustainability and conservation protection of the Bank. The primary objectives are to implement the restoration, construction and establishment phases of the Bank to meet long-term goals and performance standards. Once the long-term performance standards are met, the Sponsor will serve as the long-term steward; however, the Sponsor may appoint a long-term steward pursuant to 33 CFR § 332.7 (u)(2)[4] and is subject to approval by the CESWG.

As a conservation area, the Bank will be protected by a perpetual conservation easement described in **Section 11.0** and by implementing specific management strategies such as:

- developing applicable mitigation work plans;
- utilizing predetermined monitoring schedules;
- executing prompt adaptive management practices;
- executing a perpetual-term conservation easement for long-term protection;
- establishing financial assurances for completing the construction and establishment phases; and
- establishing a secured long-term funding mechanism for annual expenditures associated with long-term monitoring, management, maintenance, and invasive species control.

The objectives are to restore (re-establish, or rehabilitate), enhance, or preserve (preservation) the physical, chemical, and biological functions of riverine hardwood forested wetlands and forested riparian stream buffer (**Appendix A, Figure 3**). **Table 2** summarizes the number of acres by each restoration type. Once the construction and establishment tasks are completed, the wetland and

[4] Transfer of long-term stewardship is defined in 33 CFR § 332.7 (u)(2) as *the instrument may contain provisions for the sponsor to transfer long-term management responsibilities to a land stewardship entity, such as a public agency, non-governmental organization, or private land manager.*

stream functions and values will mature through time and will be self-sustaining. The Bank will provide floodwater storage, improve downstream water quality, provide wildlife habitat (native and migratory), and outdoor recreation. Although not currently included as a part of the mitigation bank credit assessment, 45.5 acres of upland buffer habitats will be restored or preserved and protected.

Table 2: Summary of Restoration, Enhancement, and Preservation Goals for the Lake Creek Mitigation Bank, Montgomery County, Texas

Resource Type	Rehabilitate	Enhance	Re-establish	Preserve
Riverine Wetland Forested (Acres)	28.3	4.5	71.9	38.1
Riparian Stream Buffer	--	--	10.8	16.9
Upland Buffer	--	--	45.5	--
Streams	--	--	--	9.2
Total (Acres):				225.2

3.0 PROJECT LOCATION

The Bank is approximately 3.0 miles north of Dobbin, Texas with an approximate center point of Latitude 30.405648° North and Longitude 95.770083° West[5] (UTM 233874.2, 3366993.3, Zone 15R; **Appendix A, Figure 1**) with the legal description of the tract as 43/21 A WHITE AND W LANDRUM SURVEY. The Bank is within Montgomery County, Texas in the West Fork San Jacinto Subbasin (USGS Hydrologic Unit Code [HUC] 12040101) [**Appendix A, Figures 4 – 6**]. Ecologically the Bank is situated on the mapping boundary between the Texas Blackland Prairies and the South Central Plains Level III Ecoregions (#32 and 35) (USEPA 2003) (**Appendix A, Figure 4**). The Bank is within the Atlantic and Gulf Coast Lowland Forest and Crop Region (LRR T) and the Southwestern Prairies, Cotton, and Forage Region (LRR J) in MLRA 86B (NRCS 2006).

3.1 DRIVING DIRECTIONS

To access the Bank from the Interstate Highway (IH) 45 / U.S. Highway 59 interchange in Houston, TX, proceed north on IH 45 for approximately 40.1 miles then turn left/west onto State Highway (SH) 105. Travel west towards the town of Montgomery for approximately 14.6 miles, then turn right/north onto Farm-to-Market (FM) 149 and proceed north for 1.6 miles, then turn left/west onto FM 1097. Continue west on FM 1097 for 2.4 miles then turn left/west onto Gay Lake Road and continue for 1.3 miles, and then proceed through the gate for approximately 0.6

[5] All geographic coordinates are based on the North American Datum of 1983 (NAD83).

mile to the access gate of the property.

4.0 BASELINE CONDITIONS

Montgomery County has a warm and relatively humid, subtropical climate characterized by relatively high rainfall. The average annual precipitation based on years 1981 through 2010 is 48.8 inches. The growing season is year-round, as soil temperatures never drop below freezing and Montgomery County's average annual temperature is 68.1 degrees (National Weather Service, NOAA 2017). Most of the rainfall occurs as frontal storms during the late fall, winter, and early spring although an appreciable amount of precipitation may occur as convective thunderstorms during the early part of the growing season and tropical depressions during the summer and fall.

The Bank supports and is contiguous with adjacent riverine forests (**Appendix A, Figure 7**), which are self-sustaining by overbank stream flooding, precipitation, sheet runoff, microrelief ponding, and seasonally perched water tables, which have sustained the predominance of hydric soils (NRCS 2020[a]).

DLS conducted an analysis of aerial photography and determined that portions of the Bank have been used for some type of agricultural production (e.g. cultivation, cattle grazing) prior to 1952 (**Appendix A, Figures 8 – 14**), and other portions (central) were cleared due to timber harvesting by 1979 (**Appendix A, Figure 9**). The 2017 aerial photography indicates some recovery of forested area that was logged in 1979 and depicts the current conditions of the Bank. Based on its location with the floodplain and floodway of Lake Creek, the area was likely entirely forested prior to agricultural use and aerial photography.

Two permittee responsible mitigation (PRM) areas have been constructed on site (**Appendix A, Figure 3**). The PRMs consist of forested rehabilitation and conservation easements have been recorded.

4.1 TOPOGRAPHY

Natural topography within the Bank is flat to gently undulating with the highest elevations being the southwest and northeast corners. Soils on the lower elevations within the Bank are moderately well drained to somewhat poorly drained, with water percolation being relatively low. The Bank is in a drainage basin and precipitation runoff flows is contributed from every direction and is stored in depressions and drainages (Lake Creek and unnamed tributaries). Natural elevation ranges from 153 feet to approximately 251 feet North American Vertical Datum (NAVD) (**Appendix A, Figures 2 and 5**). Most of the Bank is within the 100-year FEMA floodplain of Lake Creek (FEMA 1989; **Appendix A, Figure 6**).

4.2 SOILS

Approximately 89.5% of the Bank area is mapped with hydric soil components and of the 52 sampled data points, 45 had hydric soil indicators (**Appendix A, Figure 15;** DLS 2018; NRCS 2020[a], 2020[b], and 2020[c]). The hydric soil indicators were Depleted Matrix (F3) and Redox Dark Surface (F6).

The association of soils found here consists primarily of black, clayey soils typical of the Texas Blackland and South Central Prairies. The Bank is underlain by the following soil types: Fetzer loamy fine sand, 1-5% slopes (WkC), Landman fine sand (Ab), Kaufman clay, frequently flooded (Kc), Trinity clay, frequently flooded (Tc), Kaman clay, 0-1% slopes, frequently flooded (KanA), Kosse soils, frequently flooded (Ks), Betis fine sand, 0-5% slopes (BIC), Woodville fine sandy loam, 1-5% slopes (SuC) and Woodville fine sandy loam, 5-12% slopes (SuD). These soils have various hydric ratings ranging from 0 to 95%, with the majority of the wetland restoration areas consisting of soils with a hydric rating of 85% or higher and all classified as frequently flooded.

4.3 HYDROLOGY

Within the Bank, hydrology is derived from bank flooding of Lake Creek and its tributaries and precipitation. The wetland restoration portions of the Bank are within the 100-year floodplain, with a preponderance of the site located in the Lake Creek floodway. Surface water flow (sheet flow) is from every direction and then drains toward Lake Creek in the middle of the property. Lake Creek flows from north to south, and additional sheet flow enters the Bank from both hillsides located north and south of the Bank. A surface accumulation of clay throughout most of the property hinders the water percolation and produces periods of saturation and inundation in the upper parts of the soil surface, especially in areas of concave micro topography. Precipitation collects in open-field and floodplain depressions, which stores surface water until it slowly percolates to the subsoil or released downstream. In addition, surface hydrology in the pastures has been altered with agriculture drainage ditches which expedite surface water flow to Lake Creek.

Much of the Bank remains inundated or saturated to sufficiently support wetland hydrology. Of the 52 sample points, 24 points exhibited wetland hydrology indicators, sample points located in the wetland re-establishment areas that did not meet the wetland hydrology criterion were typically being drained by excavated ditches/swales. The most common primary indicators were Saturation (A3), Drift Deposits (B3), and Water-Stained Leaves (B9), while common secondary indicators were Crawfish Burrows (C8), Geomorphic Position (D2), and the FAC-Neutral Test (D5).

4.4 VEGETATION

The Bank consists of agricultural land (cattle grazing) with wetland and upland hardwood forests and wetland and upland herbaceous communities. Vegetation community descriptions are provided below (**Sections 4.4.1 and 4.4.2**), which lists dominant and common species observed during field data collection. The open, herbaceous areas of the Bank have been heavily grazed and

managed for forage production, which has reduced the presence of native wetland vegetation. During the wetland delineation, the vegetation criterion was typically the only wetland criteria that did not meet in the wetland re-establishment areas. Of the 52 sample locations, 30 met the requirement for hydrophytic vegetation and these conditions will likely persist for the foreseeable future with further development of hydrophytic vegetation communities being possible with hydrologic restoration treatments. Vegetation nomenclature follows USDA, *"The PLANTS Database"* and the *2018 National Wetland Plant List* (USDA 2020 and USACE 2018).

4.4.1 WETLAND HABITATS

Riverine forested wetlands occur within the Bank and are contiguous with adjacent bottomland hardwood forests along Lake Creek. Tree assemblages and densities vary in different areas of the Bank and are likely dependent upon hydrology, soil type, and landscape position.

Riverine forested wetlands occur on elevations with temporarily to seasonally flooded or saturated hydrologic conditions. Dominant tree species vary across the landscape depending on hydrology, soil type, and landscape position. Dominant oaks observed within the Bank are willow oak (*Quercus phellos*), water oak (*Q. nigra*), bottomland post oak (*Q. similis*), Shumard oak (*Q. shumardii*), and cherrybark oak (*Q. pagoda*). Other dominant hardwood trees noted in the forested/woodland areas of the Bank include American elm (*Ulmus americana*), cedar elm (*U. crassifolia*), honey locust (*Gleditsia triacanthos*), water hickory (*Carya aquatica*), green ash (*Fraxinus pennsylvanica*), sugarberry (*Celtis laevigata*) and Osage orange (*Maclura pomifera*). Common shrubs in the forested/woodland communities include small seedlings and saplings of the dominant tree species, as well as dwarf palmetto (*Sabal minor*), deciduous holly (*Ilex decidua*), and yaupon holly (*I. vomitoria*). Ground cover density varies, ranging from nearly 100% cover to very sparse. Common dominant ground cover species include seedlings of tree and shrub species along with Cherokee sedge (*Carex cherokeensis*), savannah-panicgrass (*Phanopyrum gymnocarpon*), redtop panicgrass (*Panicum rigidulum*), giant river cane (*Arundinaria gigantea*), among a few scattered herbaceous species.

Wetland herbaceous vegetation communities (Riverine emergent) occur on lower elevation of the open cattle pastures. Dominant grass species within the wetland herbaceous vegetation communities include narrow-leaf carpet grass (*Axonopus fissifolius*), redtop panicgrass, fall panicgrass (*P. dichotomiflorum*), marsh bristlegrass (*Setaria parviflora*). Common upland pasture grasses are present in these herbaceous wetlands, which include Bermuda grass (*Cynodon dactylon*) and Bahia grass (*Paspalum notatum*). Other dominant herbaceous species include sand spikerush (*Eleocharis montevidensis*), dwarf palmetto, white root rush (*Juncus brachycarpus*), common rush (*J. effusus*), and coastal plain flatsedge (*Cyperus cuspidatus*).

The mitigation features map is based on the AJD (**Appendix B**), which categorized seven (7) surface features (e.g., forested wetlands, scrub/shrub wetlands, herbaceous wetlands, forested uplands, upland cattle pasture, Lake Creek, and tributaries). **Table 3** below lists each wetland and

aquatic resource type and linear footage or acreage below.

Table 3. Existing Wetland Resource Types within the Lake Creek Mitigation Bank, Montgomery County, Texas		
Resource Type	**Linear feet in Project Area**	**Acres in Project Area**
Forested Wetland	-	40.4
Emergent Wetland	-	28.3
Scrub/shrub Wetland		4.5
Perennial and Intermittent Streams	10,476	9.2
Totals:	10,476	82.4

4.4.2 NON-WETLAND HABITATS/EXISTING RIPARIAN BUFFER

Non-wetland mixed hardwood vegetation communities are also present within the Bank. The vegetation meets hydrophytic criteria at sample points within these communities, but these areas were classified as non-wetlands due to the lack of hydrologic and/or hydric soil indicators. The vegetation communities are very similar to the wetland forests described above; however, the species are more facultative (FAC) in nature. The non-wetland open pasture areas have been managed for pasture grasses (cattle grazing). The majority of the non-wetland pasture exhibited wetland hydrology and hydric soils but lacked wetland vegetation due to pasture grass management.

Common dominant trees in the non-wetland hardwood forest (riparian buffer) include willow oak, water oak, and cherrybark oak along with honey locust, Osage orange, and sugarberry. Common shrubs in this vegetation community include small seedlings and saplings of the dominant tree species, as well as dwarf palmetto, yaupon holly, and cedar elm. Common ground cover species include Cherokee sedge and giant river cane. Common vine species include common greenbriar (*Smilax bona-nox*) and poison ivy (*Toxicodendron radicans*).

Non-wetland herbaceous pasture vegetation communities consist of common pasture grasses as dominant species. These grasses are comprised of largely Bermuda and Bahia grasses. Other common dominant species include marsh bristlegrass, smut grass (*Sporobolus indicus*), Vasey's grass (*Paspalum urvillei*), dwarf palmetto, redtop panicgrass, southern dewberry (*Rubus trivialis*), and hogwort (*Croton capitatus*).

4.5 CULTURAL RESOURCES

A desktop and literature assessment was conducted for the Project in April of 2020 that included a review of the Texas Historical Commission (THC)'s Texas Archeological Sites Atlas (Atlas) online database and the NRHP database to identify previously recorded cultural resource sites, historic structures, properties listed in the NRHP, designated historic districts, or State Antiquities

Landmarks (SAL). Previously recorded cultural resource site forms, reports of archaeological investigations, general historical documents, and secondary sources concerning the background of the area were reviewed. The records search included a review of all previously recorded site forms, cemetery data, and surveys on file within a 1.0- mi (1.6-km) review radius of the Project. In addition to a records and literature search, soil data, US Geological Survey (USGS) 7.5-minute topographic quadrangles, aerial photographs, and contemporary geologic and physiographic features were also examined.

The background review revealed that no previously recorded archeological sites or cemeteries are mapped within the Project area. Additionally, the background review also revealed a total of two (2) previous archaeological surveys have been conducted within 1.0 mi (1.6 km) of the Project. These archaeological investigations consisted of Phase I surveys for large-scale energy infrastructure projects. None of the surveys identified are adjacent to or overlap the Project area. A copy of the desktop assessment is provided in **Appendix D**.

5.0 ESTABLISHMENT AND OPERATION

5.1 PRESERVATION

Approximately 38.1 acres of forested wetlands and 16.9 acres of riparian buffer will be preserved within the Bank (**Appendix A, Figure 3** and **Table 3**). Some of the riparian buffer is inclusive of forested wetlands, any forested wetland acreage located within the riparian buffer is not included in the forested wetland preservation acreage. Preservation includes 11.0 acres of frequently inundated mature forested wetlands, 16.6 acres of semi-frequently inundated mature forested wetlands, 5.9 acres of hickory dominant mature forested wetlands, and 4.5 acres of medium-aged forested wetlands (**Appendix C**, **Figure C-1**). The mature forest is a late successional plant community consisting of several hardwood species including oaks and hickories as described in **Section 4.4.1** of this Prospectus.

As a part of a larger stream corridor, forested wetlands are of high ecological value. These habitats provide physical, biological, and chemical wetland functions and added value for aquatic and terrestrial wildlife resources. Placing these forested wetlands under a perpetual conservation servitude ensures the permanent presence of this resource and eliminates the threat of development. Furthermore, preservation includes long-term management and invasive species control**.** Long-term viability and sustainability of the forested wetlands will be ensured through active and adaptive management including, but not limited to, invasive species control, appropriate monitoring, and long-term maintenance. Regarding hydrology, the forested wetlands are supported by stream over bank flooding, surface sheet flow, and precipitation. As such, long-term hydrology maintenance is self-sustaining.

5.2 RESTORATION PLAN

Wetland restoration (i.e., re-establishment and rehabilitation) will be accomplished through the cessation of all agricultural practices (e.g., livestock production), returning the soil surface to natural topography by removing drainage ditch spoil deposits, removal of berms, filling/grading of drainage ditches, site planting preparation (e.g., controlling introduced species, deep ripping, and surface disking), and the afforestation[6] of native wetland species. Hydrologic restoration will increase surface water retention and soil saturation, reduce nonpoint source runoff, and improve water quality through nutrient immobilization (uptake) by vegetation. The plant community will be restored as riverine forested wetlands (PFO).

5.3 HYDROLOGY RESTORATION

A hydrologic plan map indicates the preliminary locations of soil work to be completed and cross-sectional drawings are included in **Appendix A** (**Figures 18** and **19A – 19E**). Unimproved farm access roads and adjacent borrow areas (drainage ditches) will be degraded or filled to natural elevations. Drainage ditch spoil banks will be returned to drainage ditches to re-establish natural contours and restore overbank flooding and sheet flow across the Bank. Drainage laterals within the grazing pastures will be filled, swaled, and/or plugged to restore the frequency and duration of water storage, which would increase wetland hydrology in the rehabilitation areas and restore wetland hydrology in the re-establishment areas. Additionally, a berm designed to keep floodwater in Lake Creek was constructed on the east bank on the northern portion of the property; this berm would be removed during wetland hydrology restoration (**Appendix A, Figures 18** and **19A – 19E**)

5.4 SITE PREPARATION AND PLANTING

The forested wetland community and upland buffer will be re-established or re-habilitated through heavy planting of native hardwood seedlings (i.e., 436 stems per acre of hard mast, and soft mast). The preservation areas (buffer and wetland) will be chemically treated for invasive species.

5.4.1 RIVERINE WETLAND FOREST PRESERVATION AND FORESTED RIPARIAN BUFFER PRESERVATION

Site preparation for preservation areas will consist of initializing the applicable, long-term management tasks including removal of cattle, fencing, boundary maintenance, and invasive species control in wetland and non-wetland forested areas.

[6] The Society of American Foresters Dictionary of Forestry (http://dictionaryofforestry.org) defines afforestation as *the establishment of a forest or stand in an area where the preceding vegetation or land use was not forest —see deforestation, reforestation, regeneration, stand establishment.*

5.4.2 RIVERINE WETLAND FOREST ENHANCEMENT

Site preparation will consist of exotic / nuisance species removal and thinning the dense green ash stand. Exotic / nuisance species will be removed/controlled with herbicide (e.g., spot spraying). Once the initial control treatment is completed, any remaining, sprouting, or germinating stems will be spot treated. Thinning of the green ash will create areas to plant additional tree and shrub species associated with a green ash flat vegetation community type. As well, thinning the green ash will increase resources available, overall diversity, and the presence of coarse woody debris.

To enhance the native green ash forest and provide added exotic / nuisance species control, open areas created by the thinning will be replanted with native species referenced on site and with wetland indicator statuses of FAC or facultative wetland (FACW) listed in **Table 4** and may be refined and supplemented with associated species based on the *Fraxinus pennsylvanica - Carya illinoinensis - Quercus macrocarpa* Great Plains Floodplain Forest Alliance (Green Ash - Pecan - Bur Oak Great Plains Floodplain Forest Alliance). Planting will occur from January through February. Seedlings will be pre-mixed on an off-site location to ensure mixed species distribution during planting.

5.4.3 RIVERINE WETLAND FOREST REHABILITATION AND RE-ESTABLISHMENT

Site preparation will consist of exotic / nuisance species removal and afforesting[7] the open areas created by this treatment. Exotic / nuisance species will be removed / controlled with herbicide (e.g., broadcast and spot spraying). Once the initial control treatment is completed, any remaining, sprouting, or germinating stems will be spot treated again.

Table 4: Native Tree / Shrub Species with a Wetland Indicator Status of FAC or Wetter Referenced on the Lake Creek Mitigation Bank Property					
Common Name	**Scientific Name**	**Wetland Indicator Status**	**Common Name**	**Scientific Name**	**Wetland Indicator Status**
Water Oak	*Quercus nigra*	FAC	Cherrybark Oak	*Quercus pagoda*	FACW
Willow Oak	*Quercus phellos*	FACW	Shumard's Oak	*Quercus shumardii*	FAC
American Elm	*Ulmus americana*	FAC	Sugarberry	*Celtis laevigata*	FACW
Cedar Elm	*Ulmus crassifolia*	FAC	Delta Post Oak	*Quercus similis*	FACW
Water Hickory	*Carya aquatica*	OBL	Green ash	*Fraxinus pennsylvanica*	FACW
Buttonbush	*Cephalanthus occidentalis*	OBL	Green Hawthorn	*Crataegus viridis*	FACW

To restore the native forest and provide added exotic / nuisance species control, rehabilitation and re-establishment areas will be afforested with native species referenced on site and with wetland indicator statuses of FAC or wetter listed in **Table 4**. The proposed planting species list is comprised of the tree species identified from the forested, wetland data points (DLS 2018). Planting will occur from January through February at a rate of 436 stems per acre on approximately 10-foot centers. The soil surface will be subsoiled to a depth of 14 to 16 inches to create a seedling planting bed (Allen et al. 2001). Immediately following subsoiling, restoration areas will be disked and a pre-emergent herbicide will be applied to control invading grasses and broadleaf species. Seedlings will be pre-mixed at an off-site location to ensure species distribution during planting. The planting ratio of hard to soft mast will be approximately 65:35, which will consist of at least eight (8) of the 12 reference species (**Table 4**).

Due to the number of stems required for afforestation, tree seedlings will be provided by commercial nurseries using seeds collected within similar temperature regimes and plant hardiness zones within the Western Gulf Coastal Plains and South-Central Plains Level III Ecoregions (USEPA 2003). However, the availability of tree seedlings for afforesting is often a limiting factor and is determined by seedling availability and cost.

5.4.5 UPLAND BUFFER RESTORATION AND FORESTED RIPARIAN BUFFER RE-ESTABLISHMENT

Site preparation for non-wetland buffer and forest riparian buffer re-establish will mimic the wetland rehabilitation and re-establishment areas. Tree species planted in the riparian buffer would be similar to the wetland restoration target species.

To restore the native forest and provide added exotic / nuisance species control, upland buffer areas will be afforested with native species referenced on site and with wetland indicator statuses of FAC and facultative upland (FACU) and upland (UPL) species referenced at the site. Additional trees that could be used in the upland buffer includes bur oak (*Quercus macrocarpa*), pecan,and slippery elm (*Ulmus rubra*). Planting will occur from January through February. Seedlings will be pre-mixed on an off-site location to ensure mixed species distribution during planting.

5.5 MONITORING AND MANAGEMENT

Through the initial, interim, and long-term Bank phases, the Sponsor will monitor and manage all aspects of the Bank. The Sponsor will use prudent efforts, (i.e., physical, chemical, or mechanical) to eliminate existing noxious and/or invasive vegetation present in the most current Texas Invasives Database. In addition to invasive plants species, the Sponsor will implement techniques / methods to control nuisance, invasive wildlife species (e.g., feral hogs; *Sus scrofa*).

Following completion of construction activities, the Bank will be monitored and inspected annually for invasive species colonization and abiotic / biotic factors affecting tree or herbaceous-shrub establishment and growth. Monitoring will determine if adaptive management measures, such as replanting, need consideration. The Sponsor anticipates that invasive species control will be implemented annually over the first five (5) years following construction and as-needed following Year 5. The Sponsor will continue to monitor the Bank through annual inspections to document the following:

- the effectiveness of control efforts;
- the extent and degree of exotic / nuisance species present;
- the extent and degree of any herbivory or insect damage;
- the extent and degree of adverse climate impacts (i.e., drought);
- boundary maintenance (e.g., gates, signage, fencing, boundary marking, etc.); and
- the condition and functionality of any earthen structures (i.e., *in situ* earthen fill or plugs).

Following such monitoring, exotic / nuisance species control will be implemented as necessary, and boundary maintenance will likely occur at five-year intervals.

6.0 PROPOSED SERVICE AREA

The primary and secondary service areas[8] are located within the Western Gulf Coastal Plain and South Central Plains Level III Ecoregions (EPA 2003) (**Appendix A, Figure 4**). The primary service area consists of the West Fork San Jacinto HUC (12040101) and the East Fork San Jacinto HUC (12040103) (**Appendix A, Figure 16**). The secondary service area consists of the Spring HUC (12040102). The proposed primary service area extends into the USACE-Ft. Worth District (CESWF) area of responsibility within the West Fork San Jacinto Watershed, and a portion of the secondary watershed (Spring) also extends into the CESWF. The Sponsor is proposing that CESWG performs all bank review due to the small portions of the service areas that extend into CESWF.

Unavoidable impacts to wetland and stream function within the primary service area will be replaced at a 1:1 ratio while those impacts within the secondary service area will be debited at a 1.5:1 ratio. Any out-of-kind or use beyond the service area will be considered by the CESWG and Interagency Review Team on a case-by-case basis.

6.1 CREDIT DETERMINATION

Credit determination will utilize the appropriate iHGM model and 2013 Galveston District Stream Tool (Stream Tool) [USACE 2013]. According to 33 CFR § 332.3(h) and the Stream Tool, forested wetland preservation and stream buffer preservation must meet certain requirements to generate credit and/or for use as mitigation offsets. Both the wetland and riparian buffer preservation meet the required preservation criteria outlined in the 33 CFR § 332.3 for the following reasons:

- The Bank offers high functioning forested wetland system that contributes to the watershed via floodplain storage, habitat diversity, forested habitat for wildlife, and filters stormwater runoff from grazing pastures.
- The forested preservation area is ecological sustainable and according to the iHGM model in **Appendix C** exhibits FCI values consistent with high quality wetlands.
- The Stream Condition Assessment showed that Lake Creek within the Bank boundary has a reach condition index score of 4.3 (**Appendix C**)
- Currently, the Lake Creek watershed is under heavy residential/commercial development. Mature native forests along Lake Creek in its upper watershed have been mostly cleared for cattle production. Lastly, merchantable hardwood timber is present within the tract, which provides a timber harvesting threat. These factors demonstrate a

[8] The Service Area is defined in 33 CFR § 332.2 as the *geographic area within which impacts can be mitigated at a specific mitigation bank or in-lieu fee program, as designated in its instrument.*

threat of destruction or adverse modification to both the wetland preservation areas and riparian buffer preservation areas.

- Preservation within the Bank is consistent with the watershed approach. A watershed protection plan has been established for the West Fork San Jacinto River and Lake Creek. The plan outlines reduction of cattle waste input and protection/preservation of bottomland forests as a measure to help improve and protect water quality and recreational values within the watersheds (HGAC 2018).

Lastly, the site will be protected through a conservation easement, and it will be managed long-term (invasive species control).

6.1.1 WETLAND RESTORATION

In accordance with 33 CFR § 332.4(c)(6), the credit determination includes a description and number of functional credits (i.e., physical, biological, and chemical) that will be provided for compensatory mitigation. Forested wetland re-establishment and rehabilitation mitigation credits were calculated using the CESWG riverine forested iHGM (USACE 2008). The baseline credits, restored credits, and functional credit lift for each parameter (i.e., physical, biological, and chemical) are included in the draft iHGM Credit Workbook (**Appendix C**).

6.1.2 RIPARIAN BUFFER RESTORATION

No instream channel restoration is proposed, all stream work will consist of buffer re-establishment and buffer preservation. The assessment of proposed stream mitigation credits utilizes the Stream Condition Assessment (SCA). According to the SCA, to earn credit for buffer preservation, the stream must have an RCI of 4.0 or higher. The preservation portion of Lake Creek currently has an RCI score of 4.57 (**Appendix C**). For the credit determination within the buffer area, no credit generation was calculated for stream segments that did not have 100-feet of riparian belt width; these locations occur along the western property boundary.

According to the 2013 SCA, enhancement restoration results in the gain of selected aquatic resource function(s) but may not result in a gain in aquatic resource area (e.g., buffer re-establishment). The restored stream buffer credits and preserved credit and the draft SCA Worksheets are presented in **Appendix C**.

6.2 CREDIT USE

The riverine forested habitats (preservation, enhancement, re-establishment, and rehabilitation) will provide credits for non-tidal, forested impacts, and the stream buffer re-establishment and buffer preservation will provide credits for stream impacts. The Bank shall not be utilized to compensate for any impacts which occur on properties or facilities managed by Texas Parks and Wildlife Department (TPWD).

7.0 GENERAL NEED AND TECHNICAL FEASIBILITY

7.1 GENERAL NEED

The Bank will preserve, enhance, re-establish, and rehabilitate riverine forested wetlands and stream riparian buffer along Lake Creek. These preservation and restoration efforts will return natural sheet flow from the Bank to Lake Creek and over bank flooding from Lake Creek to the entirety of wetlands within the Bank. Additionally, the Bank, in its immediate area, will widen the riverine forested corridor approximately 0.25 mile to the west and to 0.35 mile to the east of the current stream corridor.

The Bank is in the Lake Creek Watershed, which is a subbasin of the West Fork San Jacinto River basin. According to the *West Fork San Jacinto Watershed Greenprint*, the Lake Creek watershed has historically been the least developed watershed in the San Jacinto River basin, but it is now one of the fastest-growing areas in the region. Montgomery County has experienced tremendous residential growth in recent years due to the proximity to the City of Houston. According to *Forbes,* (Carlyle 2015), Houston's regional economy was the fasting growing in the United States, with a 4.5% yearly job growth rate. It is estimated that the regional population will grow by 4 million people by the year 2040 (Trust for Public Lands 2016). Montgomery County has experienced a 13.9% population increase from 2010-2014. HGAC projects over a 142% population increase in Montgomery County from the years 2015-2045 (HGAC 2017).

Texas Parks and Wildlife Department (TPWD) considers Lake Creek an Ecologically Significant River and Stream Segment within the Region H Water Planning Group (TPWD 2001). TPWD recommended the segment of Lake Creek within Montgomery County for this designation for the following reasons: biological function, hydrologic function, water quality, and unique bottomland communities.

Lake Creek has been identified as an important resource within the region. The following groups / organizations are working to help conserve Lake Creek and/or San Jacinto watersheds: West Fork Watersheds Partnerships, Lake Creek Greenway Partnership, Bayou Land Conservancy, Trust for Public Lands, Houston-Galveston Area Council (HGAC), San Jacinto River Authority, and Galveston Bay Foundation. These organizations have identified the need to improve water quality and maintain contact use recreation. With those needs identified, a *Watershed Protection Plan for the West Fork San Jacinto River and Lake Creek Watersheds* has been developed. The Watershed Protection Plan estimates that by 2030, fecal bacteria reduction will need to be reduced by 31-68% (HGAC 2018). The Watershed Protection Plan identified the reduction of fecal waste and placed a priority of protecting land near waterways. Additionally, the *West Fork San Jacinto Watershed Greenprint* identified the corridor along Lake Creek in which the Bank is located as a high priority to protect water quality and potential for water-based recreation (Trust for Public Lands 2016). The Greenprint also identified the Lake Creek corridor as a priority to

protect/conserve undeveloped lands. The projected growth rates in Montgomery County combined with Lake Creek being identified by resource agencies, conservation organizations, and the general public as an ecological significant waterbody makes the Bank an excellent property to restore, maintain, and conserve the biological, chemical, and physical functions within the West Fork watershed and larger San Jacinto River basin.

The Bank will provide forested wetland and stream mitigation credits to compensate for permitted losses of Waters of the U.S. (i.e., riverine forested wetlands and streams). Forested wetland and stream habitats are prevalent in the Primary and Secondary Service areas, which will likely be impacted due to the current and forecasted development occurring in Grimes, Liberty, Montgomery and Harris Counties (e.g., residential, industrial, and energy sectors).

7.2 TECHNICAL FEASIBILITY AND ECOLOGICAL SUITABILITY

Site construction, establishment, and long-term management of the Bank is routine and practical. The geomorphological location, relatively flat to slightly sloping landscape, existing hydric soils, and wetland hydrology implies that the Bank is a prime site for wetland / stream preservation, re-establishment, and rehabilitation.

The following parameters were considered in selecting the site for wetland / stream preservation and restoration:

- Location - the Bank will re-establish or rehabilitate, preserve, and protect the physical, chemical, and biological functions of a forested landscape, which includes forested wetlands, Lake Creek, herbaceous-shrub wetlands, hardwood non-wetlands, relic oxbows, and riparian stream bank.
- Mitigation need - the increasing requests for riverine forested wetland credits and stream credits within the primary and secondary service areas establishes the need for this Bank.
- Mitigation availability - the limited availability of riverine forested and stream credits within the primary and secondary service areas.
- Landscape positioning - the relative low elevation of the Bank and nexus to Lake Creek.
- Hydric soils - the field-documented presence of hydric soils within the Bank boundaries.
- Historic evidence - the historical presence of riverine forested habitat as shown by historical aerial photography.
- Compatibility - most surrounding land use of the Bank consists of forested and agricultural landscapes.
- Continuity - restoring and protecting the Bank will reduce fragmentation, protect and restore riparian habitats and reconnect wildlife habitats as outlined in the Watershed Protection Plan and Watershed Greenprint.
- Long-term protection and habitat connectivity - the Bank will preserve a riverine forested landscape that will restore historic bottomland hardwood wetlands.

The Bank's geomorphic location along Lake Creek is within an intermittent forested riparian corridor. Due to its remoteness from development and hydrologic connection to Lake Creek, the Bank will function as a self-sustaining wetland. Within one mile of the Bank perimeter, the surrounding land use is comprised of agriculture (39.1%), woody wetlands (27.5%), shrub / scrub (10.5%), mixed forest (10.3%), grassland / herbaceous (5.5%), evergreen forest (3.0%), developed (2.6%), open water (0.7%), and emergent wetlands (0.8%) (**Appendix A, Figure 7**). Given the low level of disturbance from these compatible land uses, wetland restoration is complementary in this landscape setting. Furthermore, approximately 90% of the Bank is within the designated 100-year flood zone (Zone A) and National Wetland Inventory mapping shows the continuity of the Lake Creek forested corridor, which is a mosaic of forested wetlands and non-wetlands (**Appendix A, Figure 17**; USFWS 2014).

Under the perpetual conservation easement, the Bank will preserve 38.1 acres of forest wetland habitat, enhance 4.5 acres of forest wetland habitat, rehabilitate 28.3 acres of forest wetland habitat, re-establish 71.9 acres of forest wetland habitat, re-establish 10.8 acres of stream buffer, preserve 16.9 acres of stream buffer, and afforest 45.5 acres of upland buffer, and preserve 9.2 acres of streams which amounts to 225.2 acres. These habitat acres provide additional flood water storage and filter sheet flow water for Lake Creek which complement the Lake Creek Greenway Partnership, whose mission and objectives strive to increase recreational and educational opportunities, preserve green space, and improve water quality within the Lake Creek Watershed (Lake Creek Greenway Partnership 2019).

As an ecologically restored and protected acreage of the Lake Creek forested corridor, the Bank will be sustainable habitat for terrestrial, aquatic, and migratory wildlife and native plant species. Indigenous and/or migratory mammal, bird, reptile, amphibian, fish, insects, mollusks, and plant species inhabiting Lake Creek will benefit from the increased riverine wetland forest the bank will provide (Wagner 2019). An example is the development of snags and course woody debris (CWD). Snags and CWD are decomposing microhabitats for invertebrates that provide nutrition for higher trophic level species. Snags provide nesting sites for woodpeckers (e.g., downy woodpeckers [*Picoides pubescens*], hairy woodpeckers [*Picoides villosus*]) and bat roosting sites (e.g., Rafinesque's big-eared bat [*Corynorhinus rafinesquii*] and Southeastern myotis [*Myotis austroriparius*]). Birds and bats are beneficial for long-term forest health, as these species are beneficial in slowing the spread of species such as the emerald ash borers (*Agrilus planipennis*) (Koenig et al. 2013). CWD is essential for invertebrate habitat and nutrient cycling (Brinson et al. 1995, NRCS 2003).

8.0 EASEMENTS AND ENCUMBRANCES

8.1 MORTGAGES, EASEMENTS AND ENCUMBRANCES

A Summary of Title Matters and a survey plat are provided **Appendix E**; the survey plat acreage is inclusive of the two PRM tracts. A conservation easement will be placed on the Bank as described in **Section 11.0**. One pipeline easement was recorded in 1907 by the Texas Company. The easement is blanket in nature covering a 200-acre tract, and the survey states that it affects Tract 1, which is the 46-acre tract consisting of the northwest corner of the Bank (**Appendix E**). The pipeline was never constructed, and according to the Texas Railroad Commission's GIS viewer, no pipeline crosses the Bank property or is immediately adjacent. The language in the easement says it will exist "*so long as such structures are maintained*." Based on the lack of structures, the easement is no longer active and would not impact operation of the Bank. No known other encumbrances occur on the Bank. A list of a summarized ROW descriptions from the certified survey is provided in **Appendix E**.

8.2 CURRENT SITE RISKS

The Sponsor does not foresee any adjacent land encumbrances or hindrances on the Bank. Due to similar land use practices and management on adjacent land(s), the construction, establishment, and long-term phases of the Bank will not be affected by adjacent land uses. Therefore, adverse impacts are unlikely to result from the continued existence and operation of the neighboring land uses or ROW uses described in **Section 8.1**.

8.3 LONG-TERM SUSTAINABILITY

Long-term wetland hydrology, plants, and hydric soils surface hydrology will be sustained by localized rainfall, sheet flow, backwater flooding, and shallow, seasonally perched high-water tables. The long-term conditions are attainable as indicated by the baseline site conditions described in the AJD and iHGM analysis (**Appendices B and C**). Furthermore, long-term viability and sustainability of the Bank is founded on proven construction and establishment practices / techniques discussed in this draft prospectus. Prior to entering the long-term phase, the initial, interim, and long-term performance standards will be met as prescribed in the MBI. To sustain the long-term standards through management, monitoring and adaptive management (if necessary) will be implemented to manage the Bank. A long-term management plan will be provided with the draft MBI and included in the approved MBI.

9.0 QUALIFICATIONS OF THE SPONSOR

Per 33 CFR § 332.8(d)(2) (vi.), this section describes the Sponsor's qualifications to successfully complete the proposed Bank. DLS will serve as the Sponsor. DLS has developed and implemented

mitigation banks in the following USACE Districts: CESWF, CESWG, New Orleans (CEMVN), and Vicksburg (CEMVK).

DLS is a land management and restoration company whose technical staff includes Certified Wildlife Biologists, Ecological Restoration Practitioners, Foresters, and Professional Wetland Scientists. In addition, DLS has construction specialists who are well-versed in wetland construction activities such as contractor management, earth work, heavy equipment operation, herbicide application, safety, and vegetation restoration. DLS currently operates 17 approved wetland mitigation banks (Banks) and five (5) approved amendments within four USACE Districts totaling 8,514.8 acres which include 43,044.9 linear feet of stream restoration. These Districts include CEMVK, CEMVN, CESWF, and CESWG. In addition to the Banks referenced above, DLS serves as the Responsible Party for the establishment and maintenance of 3,516.7 acres of wetlands and 8,251.0 linear feet of stream on twenty-four (32) other approved permittee responsible mitigation areas within the CEMVN, CEMVK and CESWG Districts.

The Sponsor will comply with all conditions required by the CESWG. The Bank will be established and operated through mitigation bank procedures outlined in 33 CFR § 332.8. This includes, but is not limited to, review process, modifications, permit coordination, project implementation, financial assurance determination and mechanisms, credit determination, accounting procedures, credit withdrawals, and the use of credits. Details on the operation of the Bank will be further described in the Draft MBI per 33 CFR § 332.8 (d)(6).

10.0 ASSURANCE OF WATER RIGHTS

Per review of the Texas Commission on Environmental Quality's (TCEQ) water rights database, water use is not listed for the Bank (TCEQ 2019) and water use data recorded from 2000 through 2014[9] did not indicate any water purchases. Furthermore, as restored functional riverine forested wetlands habitats the Bank will not require the use of public water or a TCEQ Water Use Permit since the restored wetlands will not create a reservoir or off-channel reservoirs that artificially store, hold, retain or divert water from state water sources (i.e., surface or subsurface). Furthermore, there will not be any construction features on the Bank that direct, divert, or cause the retention of flood waters (i.e., all berms, dikes, ditches, will be removed). The hydrologic restoration of the Bank includes filling and leveling of internal agricultural drainage and road features to natural elevation. Any water that may naturally flow onto or through the flood plain will not be diverted or retained by any constructed surface features. As such, long-term hydrology

[9] The Water Use data from 2000 through 2014 is accessible from the URL: https://www.tceq.texas.gov/assets/public/permitting/watersupply/water_rights/applications/WRWaterUseData2000Through2014.xlsx (accessed February 14, 2019).

maintenance will not depend on the utilization of water captured from irrigation wells or a Texas public water system; therefore, water rights will not be required.

11.0 SITE PROTECTION

The Sponsor and the Owner, or its heirs, assigns or purchasers shall be responsible for protecting lands contained within the Bank in perpetuity. To provide such protection, the Owner shall execute a perpetual conservation easement (Texas Law, Natural Resources Code, Title 8 Chapter 183 Subchapter A) on all acreage identified as the Bank and the conservation easement will be recorded in the Title Records of Montgomery County, Texas (Texas Legislature 2005). The conservation easement will be held by a qualified, non-profit organization (Holder) whose mission is to retain or protect the land's natural habitat, wildlife, open-space, scenic, educational, recreational, historical, or cultural values. The Holder will be accredited by the National Land Trust Alliance or a credible non-profit conservation organization that is a member of the Texas Land Trust Council. The Holder will conduct annual inspections to verify that there are no activities occurring on the Bank that are inconsistent with the purpose of preserving the conservation values of the restored area. Bayou Land Conservancy has preliminarily agreed to hold the conservation easement and currently holds two PRM conservation easements on the property (**Appendix A, Figure 3**).

In accordance with 33 CFR 332.7 (a)(3), the easement shall contain a provision requiring a 60-day advance notification to the CESWG before action is taken to void or modify the easement including transfer of title. The conservation easement will protect the Bank from development or any other activity contrary to its use as a wetland mitigation bank.

11.1 LONG-TERM STRATEGY

A long-term management plan will be included with the draft MBI and will detail long-term management needs, costs and identify a funding mechanism in accordance with 33 CFR § 332.7 (d). The Sponsor (or Long-term Steward) and the Owner (or its heirs, assigns or purchasers) shall be responsible for protecting lands contained within the Bank in perpetuity. The Sponsor will establish the "Long-term Land Management and Maintenance" (LTMM) endowment to ensure adequate funding is available to cover future LTMM costs. The Sponsor will enter into a Mitigation Bank Endowment Agreement with the National Fish and Wildlife Foundation (NFWF) to ensure sufficient long-term funding is available for perpetual maintenance and protection of the Bank. Long-term management will consist of monitoring, vegetation management, invasive species control, boundary maintenance (approximately 2.9 miles), site protection, and the funding of such activities.

12.0 CONCLUSION

In summary, the Bank has a high potential for successfully preserving 38.1 acres of riverine forest wetland, enhancing 4.5 acres riverine forested wetlands, rehabilitating 28.3 acres of riverine forested wetlands, re-establishing 71.9 acres of riverine forested wetlands, preserving 16.9 acres of riparian buffer, and re-establishing 10.8 acres of riparian buffer. Additionally, the Sponsor will restore / preserve 45.5 acres of upland buffer and preserve 9.2 acres of streams. The cessation of agricultural land use, restoration of natural hydrology, and preservation and restoration of native habitats rehabilitation and re-establishment of riverine forested wetland habitats will improve watershed quality by reducing non-point source runoff, increasing ecosystem plant diversity, and increasing habitat for native and migratory wildlife species.

13.0 REFERENCES

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

Brinson, M. M., F.R. Hauer, L.C. Lee, W.L. Nutter, R.D. Rheinhardt, R.D. Smith, and D. Whigham, D. (1995) *A guidebook for application of hydrogeomorphic assessments to riverine wetlands*, Technical Report WRP-DE-11, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS. NTIS No. AD A308 365.

Carlyle, Erin. (2015). America's Fastest-Growing Cities 2015. Forbes. January 2015. Accessed May 29, 2019. http://www.forbes.com/sites/erincarlyle/2015/01/27/americas-fastest-growing-cities-2015/.

Delta Land Service, LLC (2018) Wetland Delineation Report Lake Creek Tract, Montgomery County, Texas. DLS 1090 Cinclare Drive, Port Allen, Louisiana

Federal Emergency Management Agency [FEMA] (1989) Flood Map Service: Map 48039C0320H. Available URL Accessed February 15, 2019. https://msc.fema.gov/portal/search.

HGAC (2018) *Houston-Galveston Area Council 2018 West Fork San Jacinto River and Lake Creek Watershed Protection Plan.* Accessed April 9, 2020. https://westfork.weebly.com/project-documents.html

HGAC (2017) *Houston-Galveston Area Council 2017 Regional Growth Forecast.* Accessed April 9, 2020. http://www.h-gac.com/community/socioeconomic/2040-regional-growth-forecast/default.aspx.

Interstate Natural Gas Association of America [INGAA] (2018) *North American Midstream Infrastructure through 2035: Significant Development Continues*. INGAA Foundation Report. Accessed February 15, 2019. URL: http://www.ingaa.org/File.aspx?id=34658.

Koenig, W.D, A.M. Liebhold, D.N. Bonter, W.M. Hochachka, and J.L. Dickinson (2013) *Effects of the emerald ash borer invasion on four species of birds.* In: Biological Invasions (2013) 15:2095-2103.

Lake Creek Greenway Partnership. 2019. Our Guiding Principles & Objectives, Lake Creek Greenway Partnership website. Available at http://lakecreektx.org/about/.

National Oceanic and Atmospheric Administration. 2019. Nation Weather Services Website accessed on December 18, 2018. Available URL: http://www.weather.gov/hgx/climate_iah_normals_summary

Natural Resources Conservation Service [NRCS] (2003) *Wetland Restoration, Enhancement, and Management*. USDA NRCS Wetland Science Institute, January 2003.

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

Natural Resources Conservation Service [NRCS] (2020[a]) *Web Soil Survey, Version 3.2* [website]. U.S. Department of Agriculture, Natural Resources Conservation Service, Web Soil Survey. Accessed April 9, 2020. Available URL: https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm

Natural Resources Conservation Service [NRCS] (2020[b]) *National Hydric Soils List by State* [website]. U.S. Department of Agriculture, Natural Resources Conservation Service. Accessed April 9, 2020. Available URL: http://soils.usda.gov/use/hydric/lists/state. html

Natural Resources Conservation Service [NRCS] (2020[c]) *Official Soil Series Descriptions (OSD)* [website]. U.S. Department of Agriculture, Natural Resources Conservation Service. Accessed April 9, 2020. Available URL: https://soilseries.sc.egov.usda.gov/

Texas Commission on Environmental Quality [TCEQ] (2019) Water *Rights Database and Related Files: Water Rights Database File*. Accessed February 14, 2019. Available URL: https://www.tceq.texas.gov/assets/public/permitting/watersupply/water_rights/applications/WRWaterUseData2000Through2014.xlsx.

Texas Legislature (2005) Natural *Resources Code. Title 8. Acquisition of Resources. Chapter 183. Conservation Easements*. Subchapter A. Conservation Easements. Acts 2005, 79[th]Leg. Ch.

1354, Sec. 2, effective September 1, 2005. Accessed April 7, 2020. Available URL: http://www.statutes.legis.state.tx.us/Docs/NR/htm/NR.183.htm.

Texas Parks & Wildlife [TPWD] (2001) *Ecologically Significant River and Stream Segments – Region H*. Accessed May 29, 2019. Available URL: https://tpwd.texas.gov/publications/pwdpubs/pwd_rp_t3200_1059c/index.phtml.

The Trust for Public Land (2016). *West Fork San Jacinto Watershed Greenprint*. Accessed May 29, 2019. https://www.tpl.org/sites/default/files/West%20Fork%20Greenprint.pdf.

United States Army Corps of Engineers (USACE) (2018) *National Wetland Plant List*. Accessed April 15, 2020. http://wetland-plants.usace.army.mil/nwpl_static/v33/home/home.html

United States Army Corps of Engineers (USACE) Galveston District (2013) *SWG Stream Condition Assessment Standard Operating Procedure*. Accessed April 8, 2020. https://www.swg.usace.army.mil/Portals/26/docs/regulatory/Streams/Determination%20of%20Compnesation%20June%202013.pdf

USDA, NRCS. 2020. The PLANTS Database (http://plants.usda.gov, accessed April 2020). National Plant Data Team, Greensboro, NC 27401-4901 USA

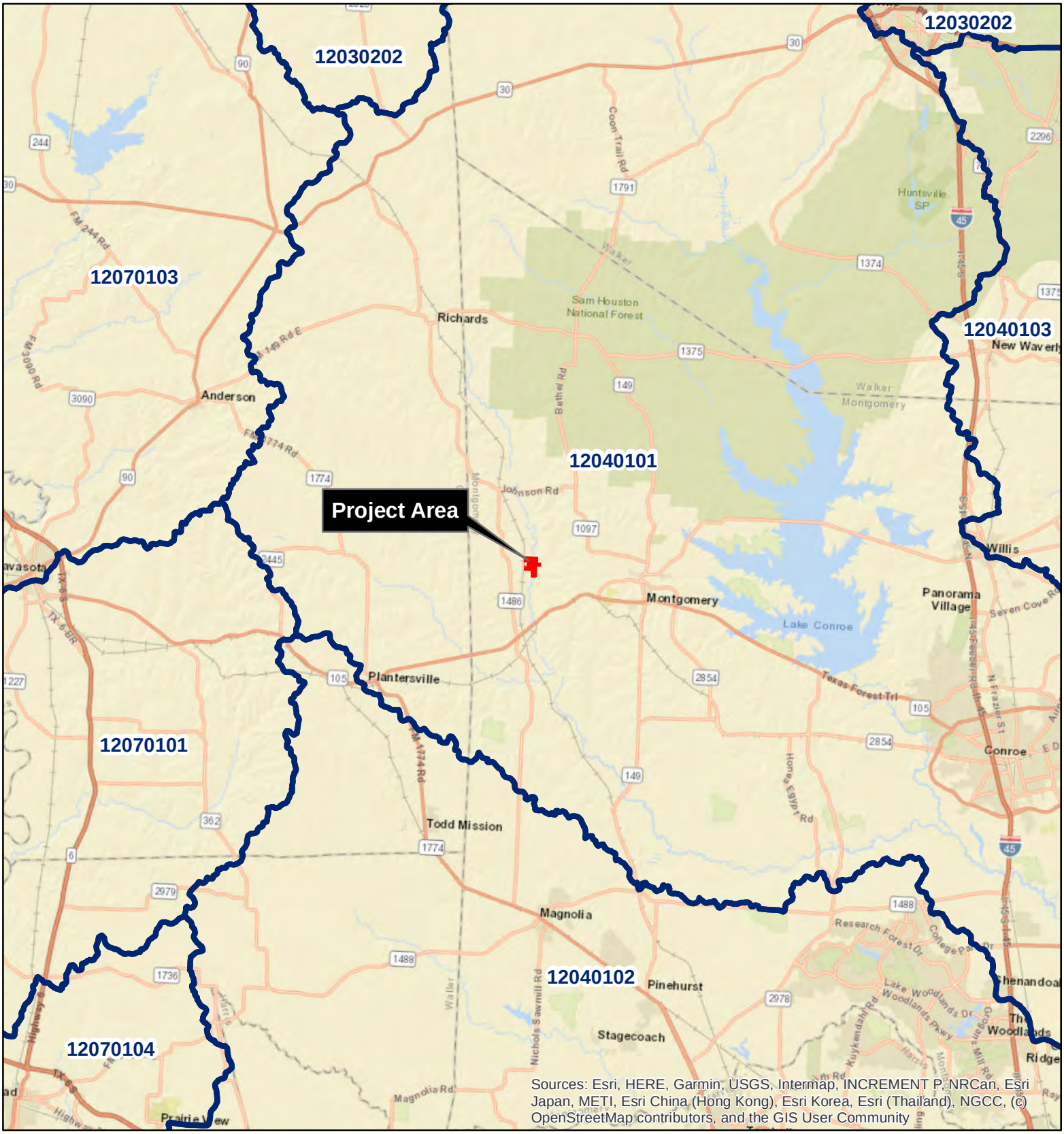
U. S. Environmental Protection Agency [EPA] (2003) *Level III ecoregions of the continental United States* (revision of Omernik 1987): Corvallis, Oregon, U.S. Environmental Protection Agency - National Health and Environmental Effects Research Laboratory, Map M-1, various scales.

U.S. Fish and Wildlife Service [USFWS] (2014) *National Wetlands Inventory Wetlands Mapper* [website]. U.S. Department of Interior, U.S. Fish and Wildlife Service. Accessed April 1, 2020. Available URL: https://www.fws.gov/wetlands/Data/Mapper.html

Wagner, M. 2018. Managing Riparian Habitats for Wildlife. Texas Parks and Wildlife Department, Technical Guide, Austin, Texas. Available online at https://tpwd.texas.gov/publications/pwdpubs/media/pwd_br_w7000_0306.pdf

Appendix A

Figures



Lake Creek (225.2 ac)

USGS 8-Digit HUC

5 2.5 0 5

Miles

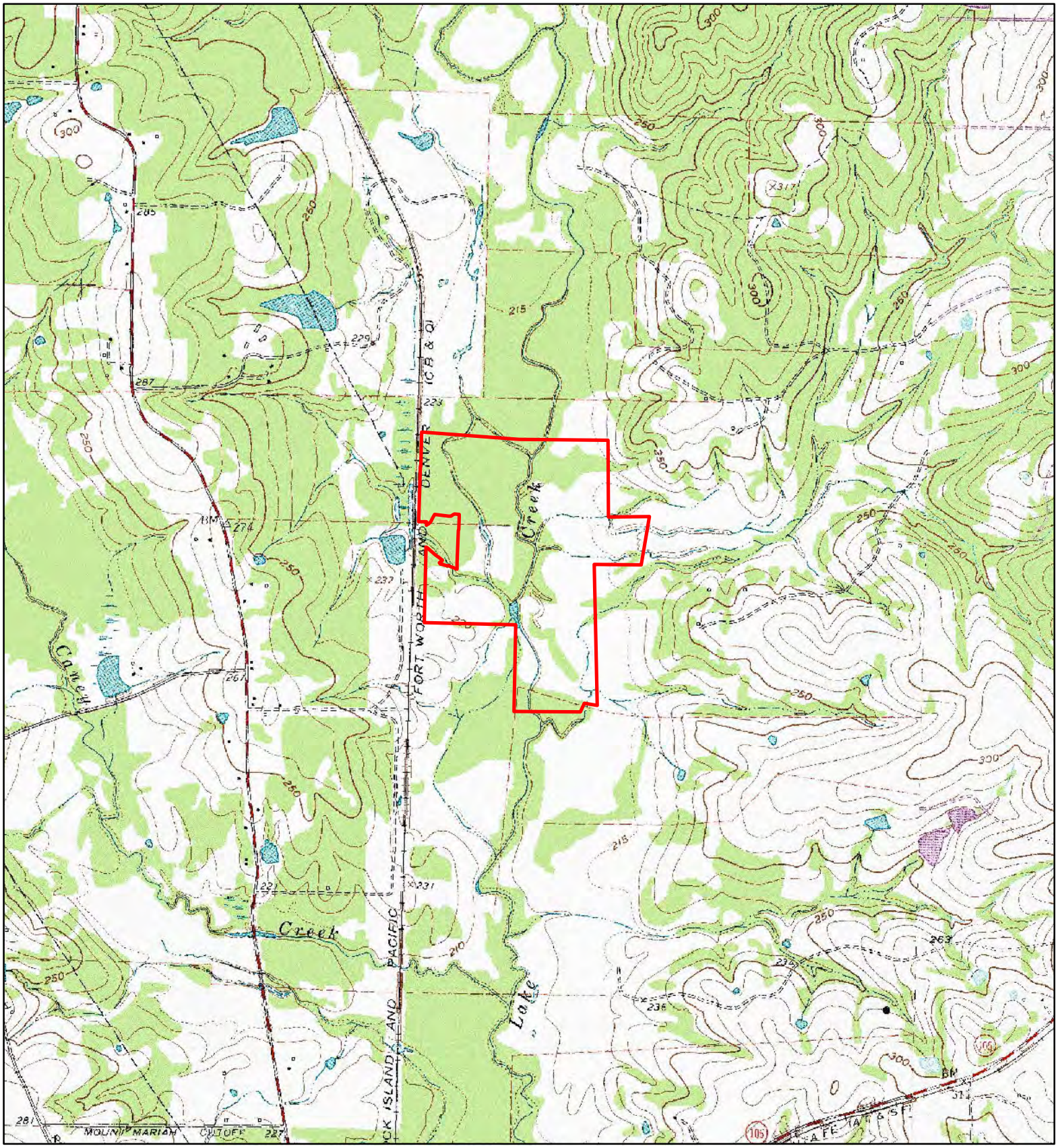
Proposed Lake Creek Mitigation Bank

VICINITY MAP

Montgomery County, TX

Created :	TSC/ArcView10
Approved :	SR
Date :	01/08/2019
Map # :	F01_VicinityMap.mxd

FIGURE 1

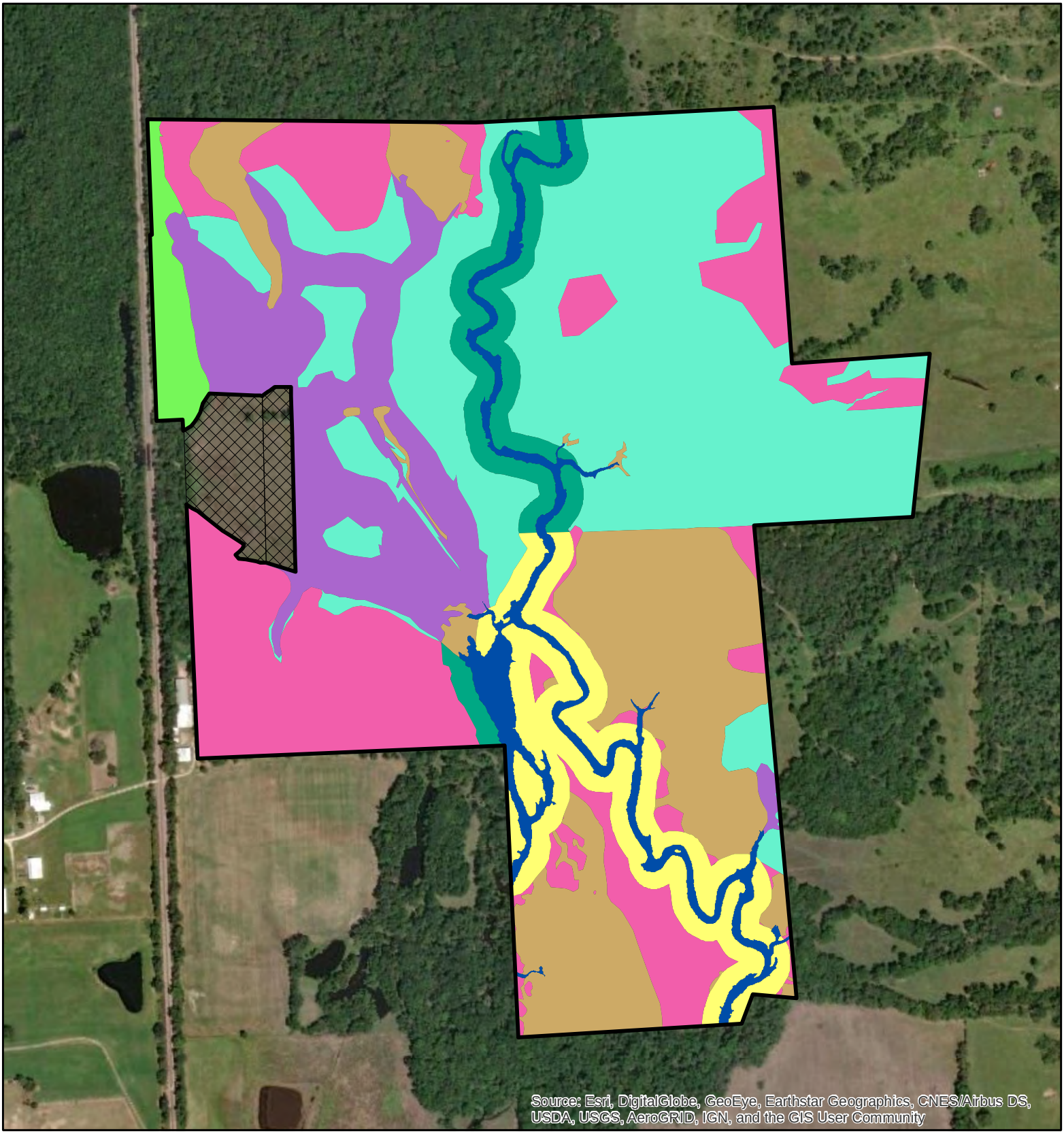


Proposed Lake Creek Mitigation Bank
2008 USGS
7.5' QUADRANGLE MAP
Montgomery County, TX

Created :	TSC/ArcView10
Approved :	SR
Date :	01/08/2019
Map # :	F02_QuadMap.mxd

DELTA LAND SERVICES

FIGURE 2



- Lake Creek (225.2 ac)
- Forested Wetland Re-establishment (71.9 ac)
- Forested Wetland Rehabilitation (28.3 ac)
- Forested Wetland Enhancement (4.5 ac)
- Forested Wetland Preservation (38.1 ac)
- Upland Buffer (45.5 ac)
- Buffer Re-establishment (10.8 ac) (2,733.4 ln ft)
- Stream Buffer Preservation (16.9 ac) (5370.3 ln ft)
- Other Waters of the U.S. (9.2 ac) (10,476 LF)
- Approved PRMs

N

600 300 0 600

Feet

Proposed Lake Creek Mitigation Bank

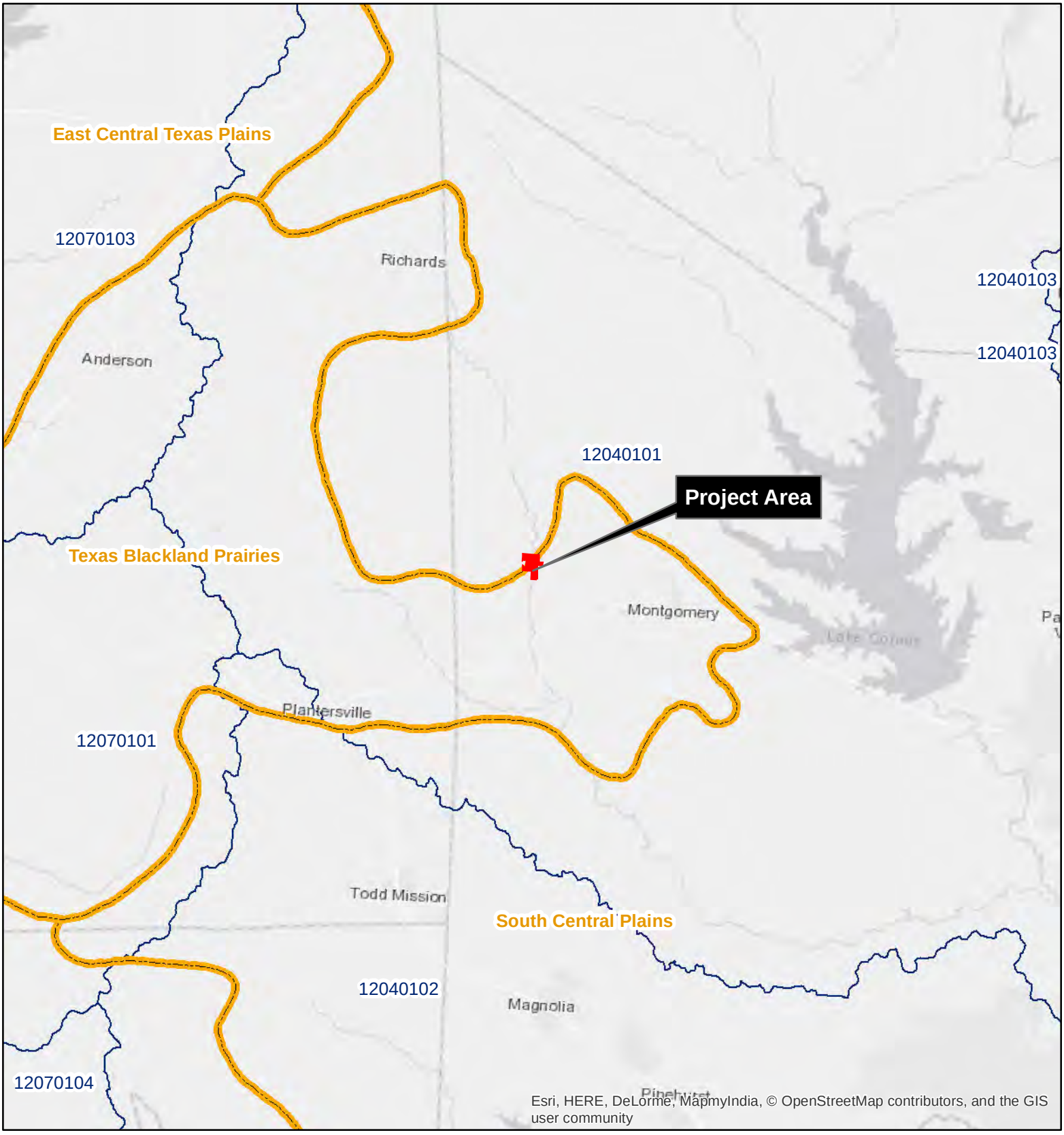
MITIGATION FEATURES MAP

Montgomery County, TX

Created :	TSC/ArcView10
Approved :	CB
Date :	04/13/2020
Map # :	F06_Features.mxd

DELTA LAND SERVICES

FIGURE 3



Lake Creek (225.2 ac)

Level III Ecoregion

USGS 8-Digit HUC

4 2 0 4

Miles

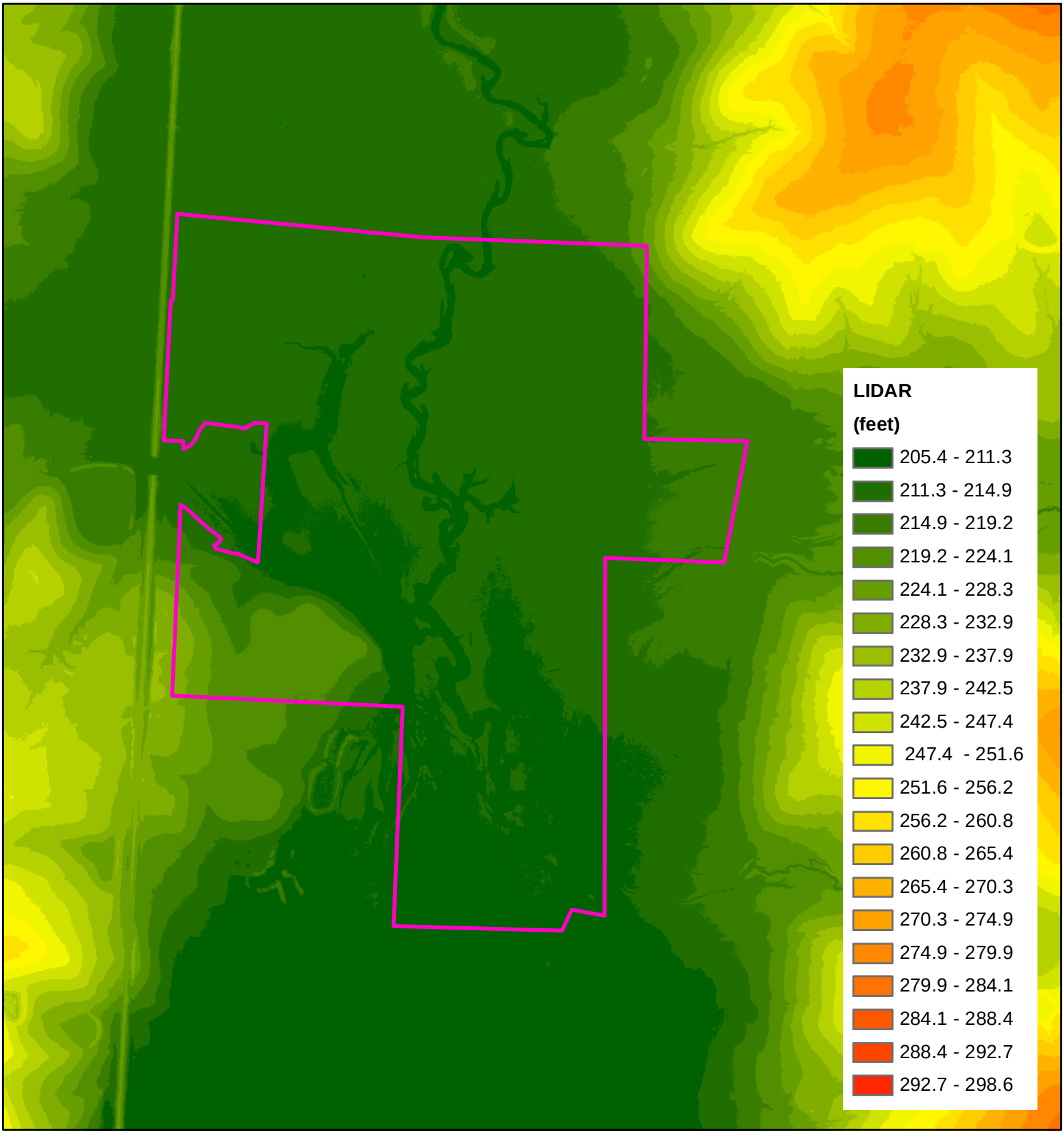
Proposed Lake Creek Mitigation Bank

LEVEL III ECOREGION MAP

Montgomery County, TX

Created :	TSC/ArcView10
Approved :	SR
Date :	01/08/2019
Map # :	F04_Ecoregion.mxd

FIGURE 4



Lake Creek (225.2 ac)

N

800 400 0 800

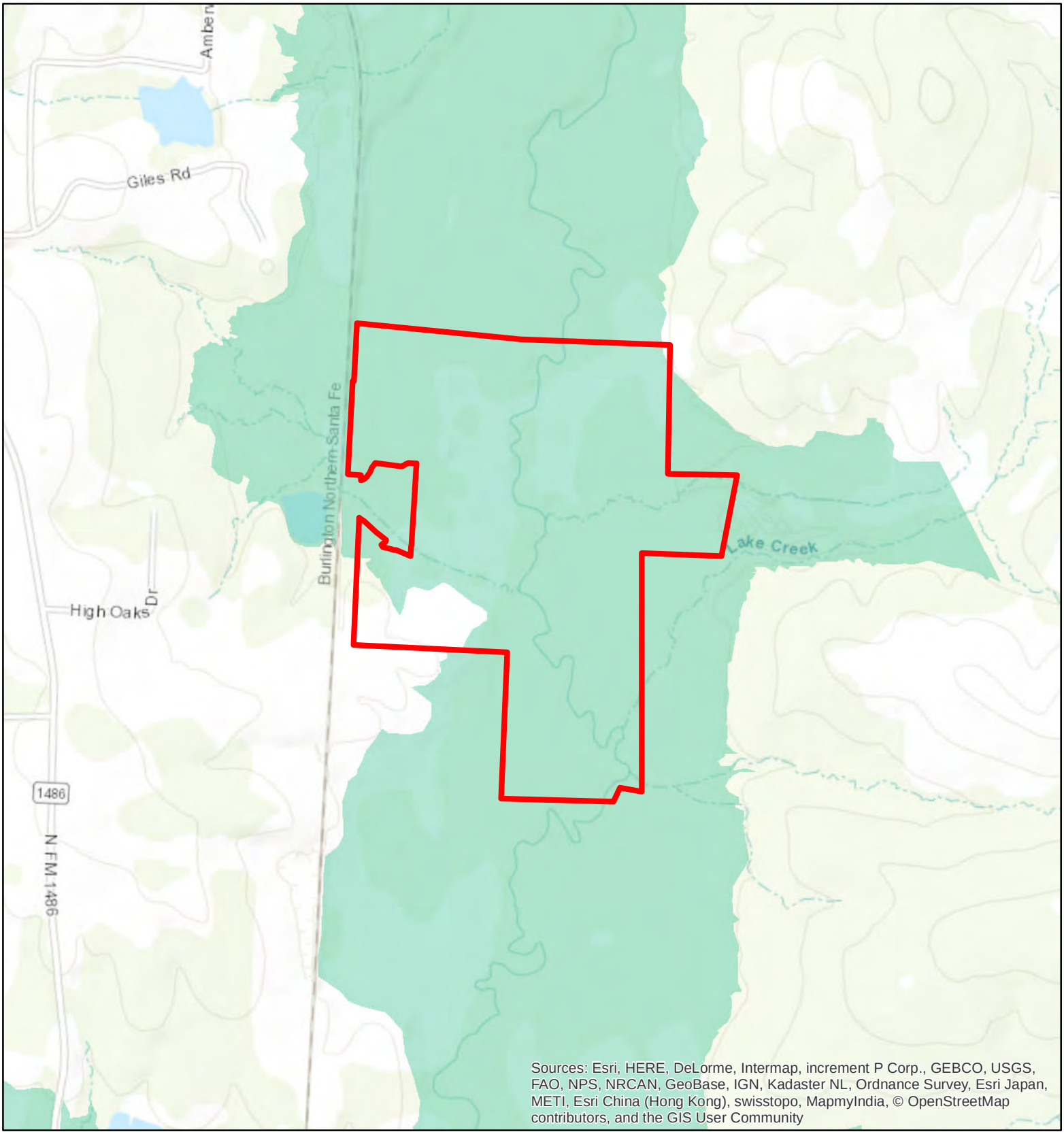
Feet

Proposed Lake Creek Mitigation Bank
LIDAR DIGITAL ELEVATION MODEL
Montgomery County, TX

Created :	TSC/ArcView10
Approved :	CB
Date :	03/25/2020
Map # :	F05_Lidar.mxd

DELTA LAND SERVICES

FIGURE 5



Lake Creek (225.2 ac)

FEMA 100-year Floodplain

800 400 0 800

Feet

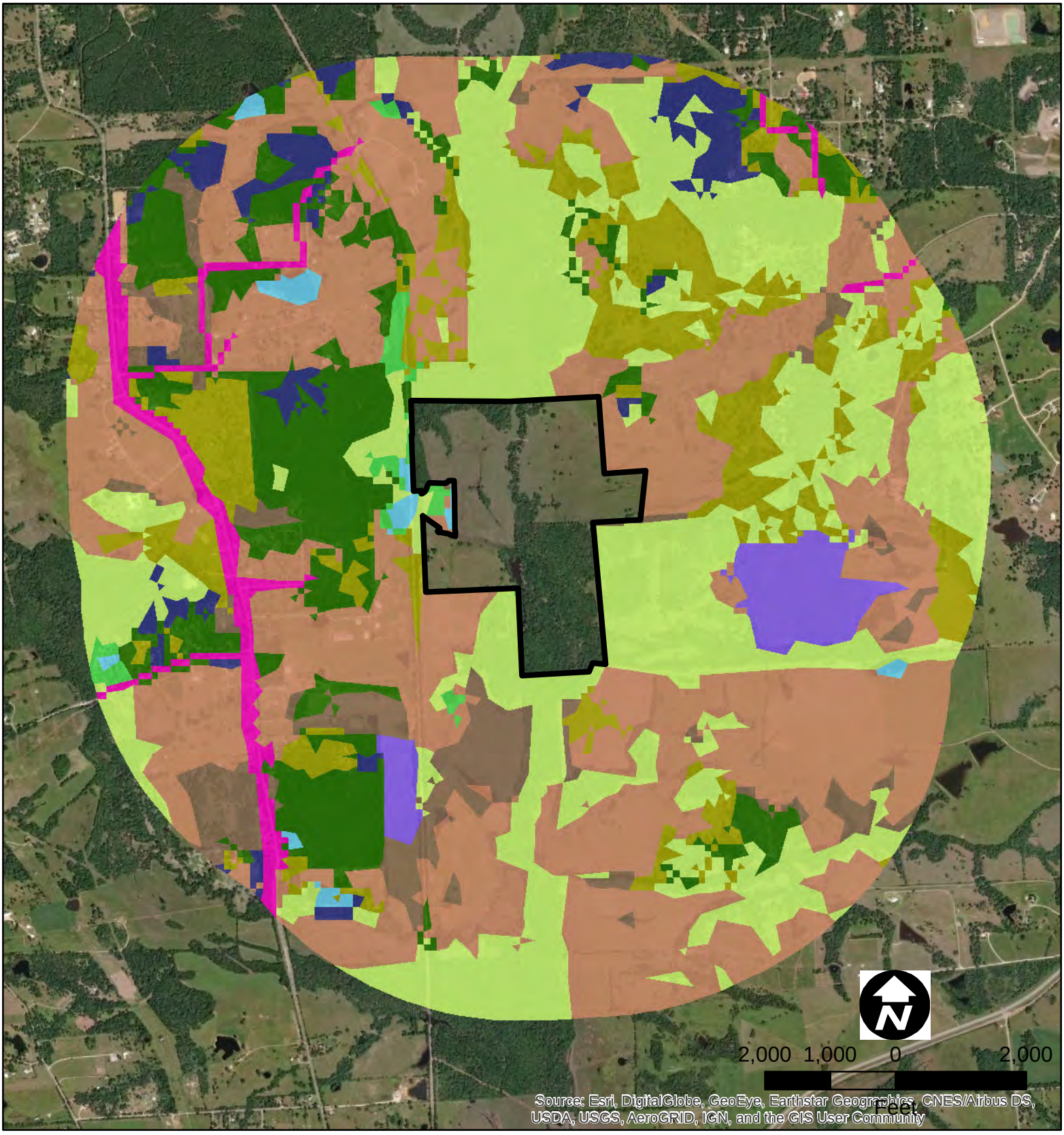
Proposed Lake Creek Mitigation Bank

FLOOD ZONE MAP

Montgomery County, TX

Created :	TSC/ArcView10
Approved :	SR
Date :	01/08/2019
Map # :	F06_Flood.mxd

FIGURE 6



- Lake Creek (225.2 ac)
- Cultivated Crops (2.4%)
- Developed (2.6%)
- Emergent Herbaceous Wetlands (0.8%)
- Evergreen Forest (3.0%)
- Grassland/Herbaceous (5.5%)
- Mixed Forest (10.3%)
- Open Water (0.7%)
- Pasture/Hay (36.7%)
- Shrub/Scrub (10.5%)
- Woody Wetlands (27.5%)

Proposed Lake Creek Mitigation Bank
LAND USE WITHIN A ONE-MILE BUFFER
Montgomery County, TX

Created :	TSC/ArcView10
Approved :	SR
Date :	01/08/2019
Map # :	F07_Landuse.mxd

DELTA LAND SERVICES

FIGURE 7

Lake Creek (225.2 ac)

600 300 0 600

Feet

Proposed Lake Creek Mitigation Bank

1952 AERIAL PHOTOGRAPH

Montgomery County, TX

Created :	TSC/ArcView10
Approved :	SR
Date :	01/08/2019
Map # :	F08_1952.mxd

DELTA LAND SERVICES

FIGURE 8

Lake Creek (225.2 ac)

600 300 0 600

Feet

Proposed Lake Creek Mitigation Bank

1979 AERIAL PHOTOGRAPH

Montgomery County, TX

Created :	TSC/ArcView10
Approved :	SR
Date :	01/08/2019
Map # :	F09_1979.mxd

DELTA LAND SERVICES

FIGURE 9

Lake Creek (225.2 ac)

600 300 0 600

Feet

Proposed Lake Creek Mitigation Bank

1982 AERIAL PHOTOGRAPH

Montgomery County, TX

Created :	TSC/ArcView10
Approved :	SR
Date :	01/08/2019
Map # :	F10_1982.mxd

DELTA LAND SERVICES

FIGURE 10

Lake Creek (225.2 ac)

600 300 0 600

Feet

Proposed Lake Creek Mitigation Bank

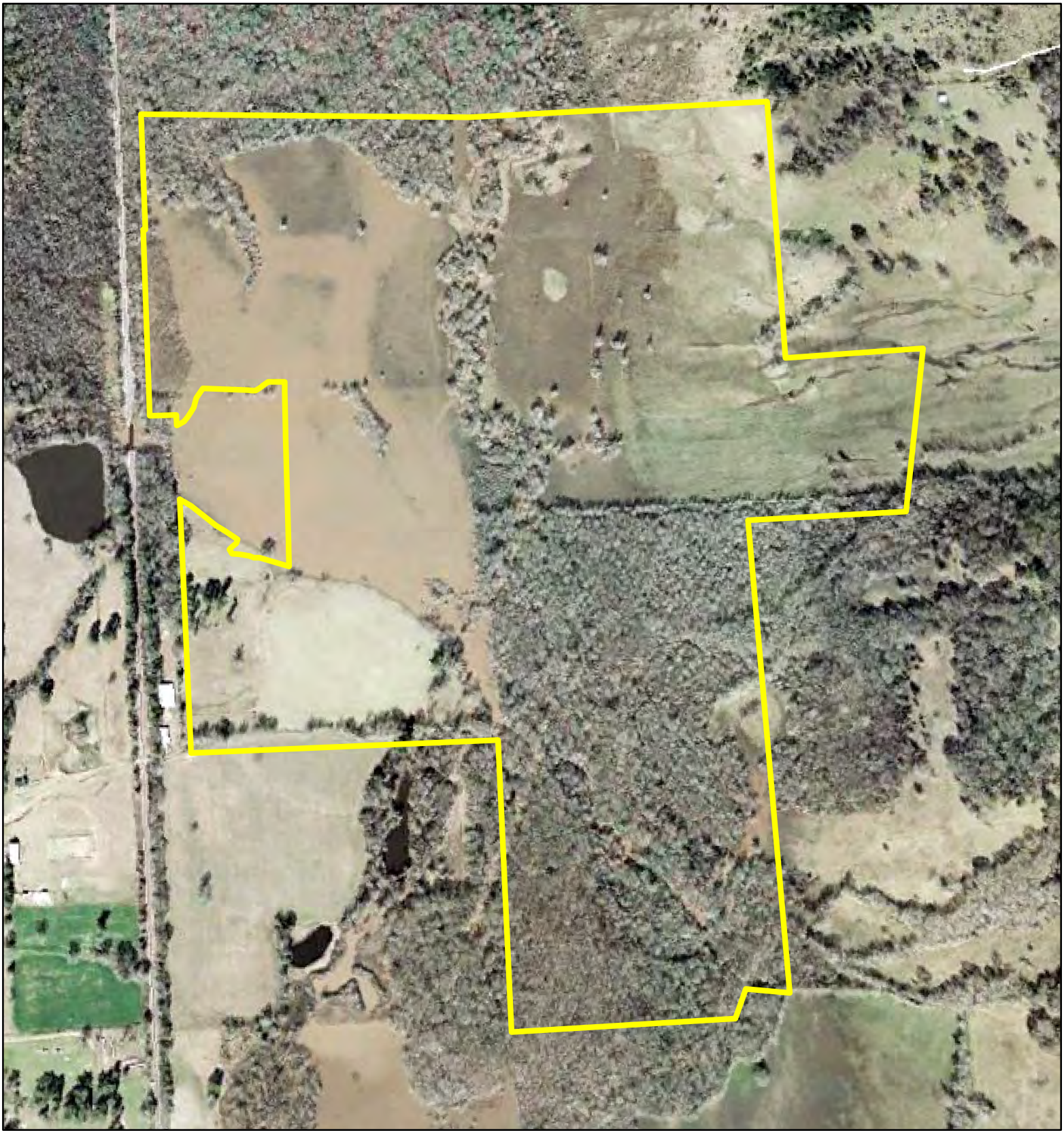
1990 AERIAL PHOTOGRAPH

Montgomery County, TX

Created :	TSC/ArcView10
Approved :	SR
Date :	01/08/2019
Map # :	F11_1990.mxd

DELTA LAND SERVICES

FIGURE 11



Lake Creek (225.2 ac)

600 300 0 600

Feet

Proposed Lake Creek Mitigation Bank

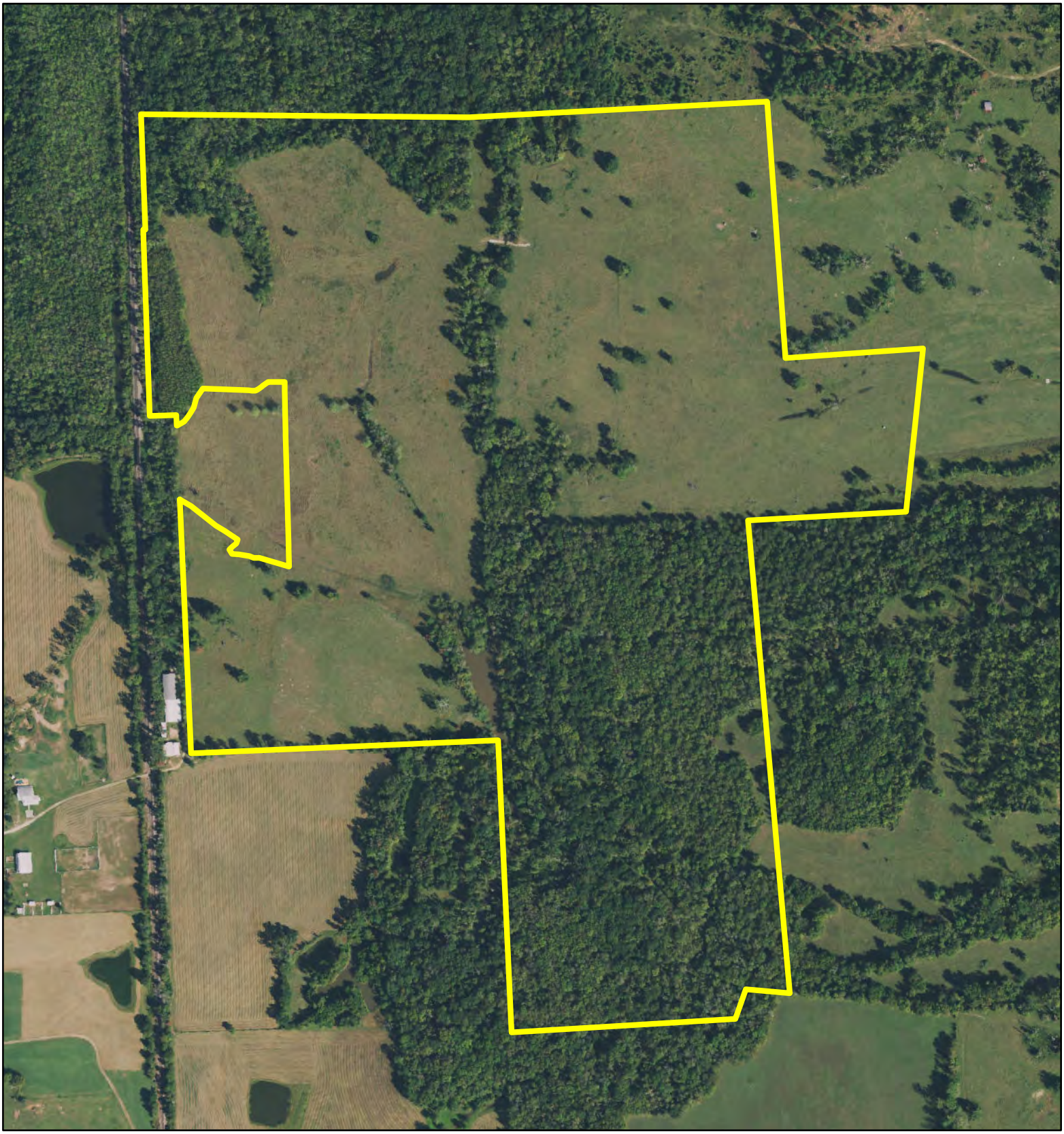
2004 AERIAL PHOTOGRAPH

Montgomery County, TX

Created :	TSC/ArcView10
Approved :	SR
Date :	01/08/2019
Map # :	F12_2004.mxd

DELTA LAND SERVICES

FIGURE 12



Lake Creek (225.2 ac)

600 300 0 600

Feet

Proposed Lake Creek Mitigation Bank

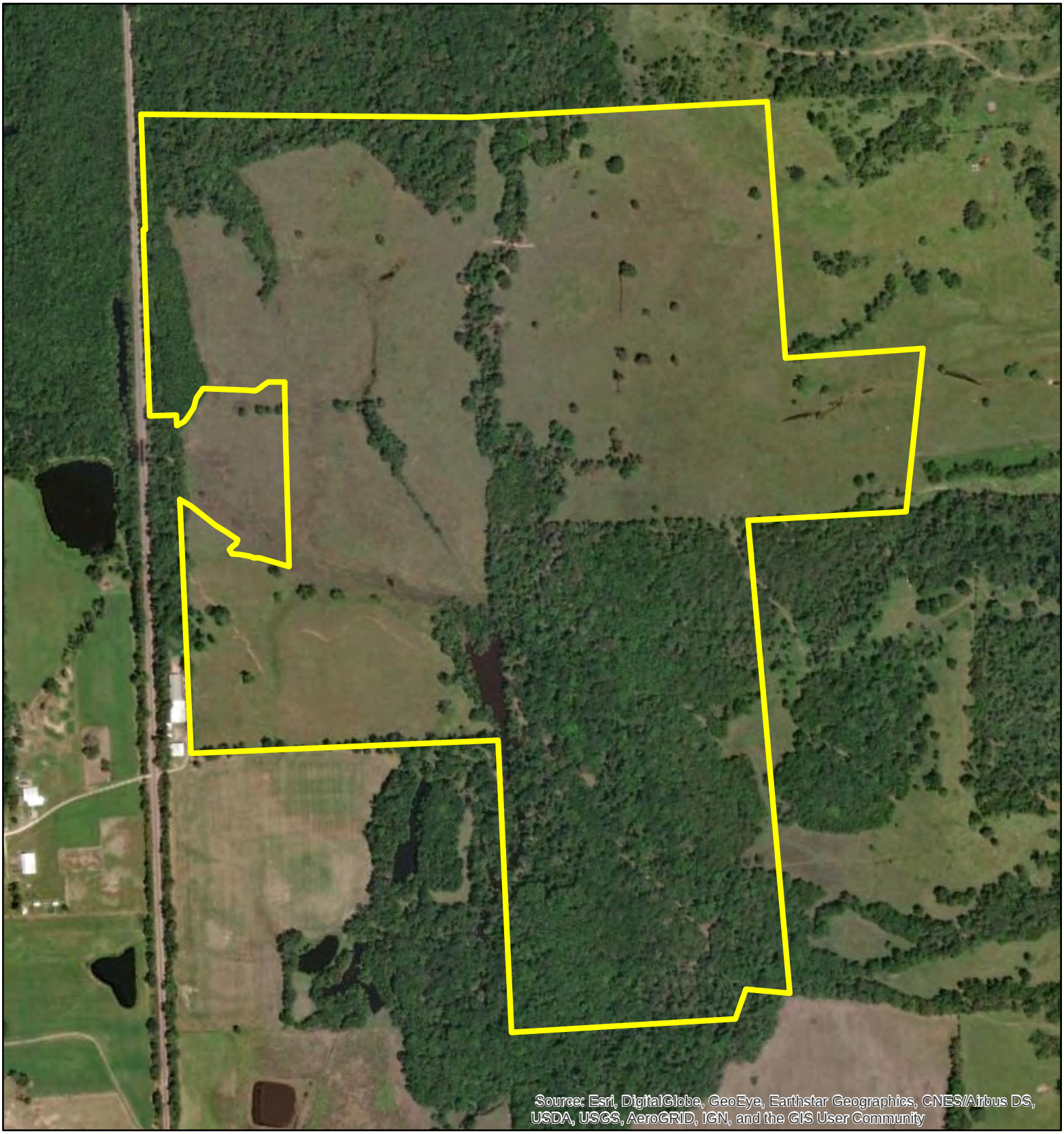
2014 AERIAL PHOTOGRAPH

Montgomery County, TX

Created :	TSC/ArcView10
Approved :	SR
Date :	01/08/2019
Map # :	F13_2014.mxd

DELTA LAND SERVICES

FIGURE 13



Lake Creek (225.2 ac)

N

600 300 0 600

Feet

Proposed Lake Creek Mitigation Bank

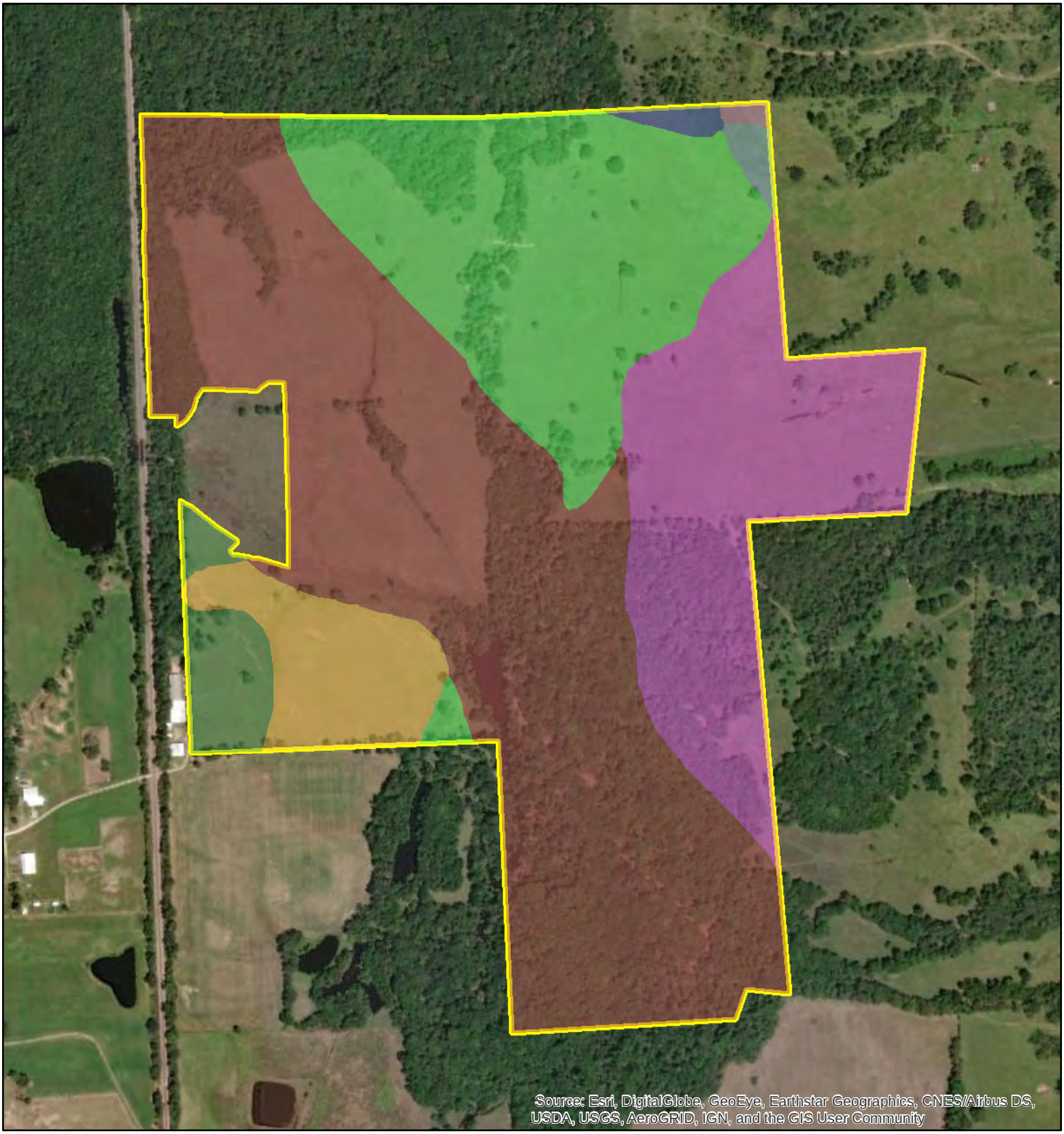
2017 AERIAL PHOTOGRAPH

Montgomery County, TX

Created :	TSC/ArcView10
Approved :	SR
Date :	01/08/2019
Map # :	F14_2017.mxd

DELTA LAND SERVICES

FIGURE 14



- Lake Creek (225.2 ac)
- Ab:Landman fine sand
- BlC: Betis fine sand, 0 to 5 percent slopes
- KanA: Kaman clay, 0 to 1 percent slopes, frequently flooded
- Kc: Kaufman clay, frequently flooded
- Ks: Kosse soils, frequently flooded
- SuD: Woodville fine sandy loam, 5 to 12 percent slopes
- Tc: Trinity clay, frequently flooded
- WkC: Fetzer loamy fine sand, 1 to 5 percent slopes

N

600 300 0 600

Feet

Proposed Lake Creek Mitigation Bank

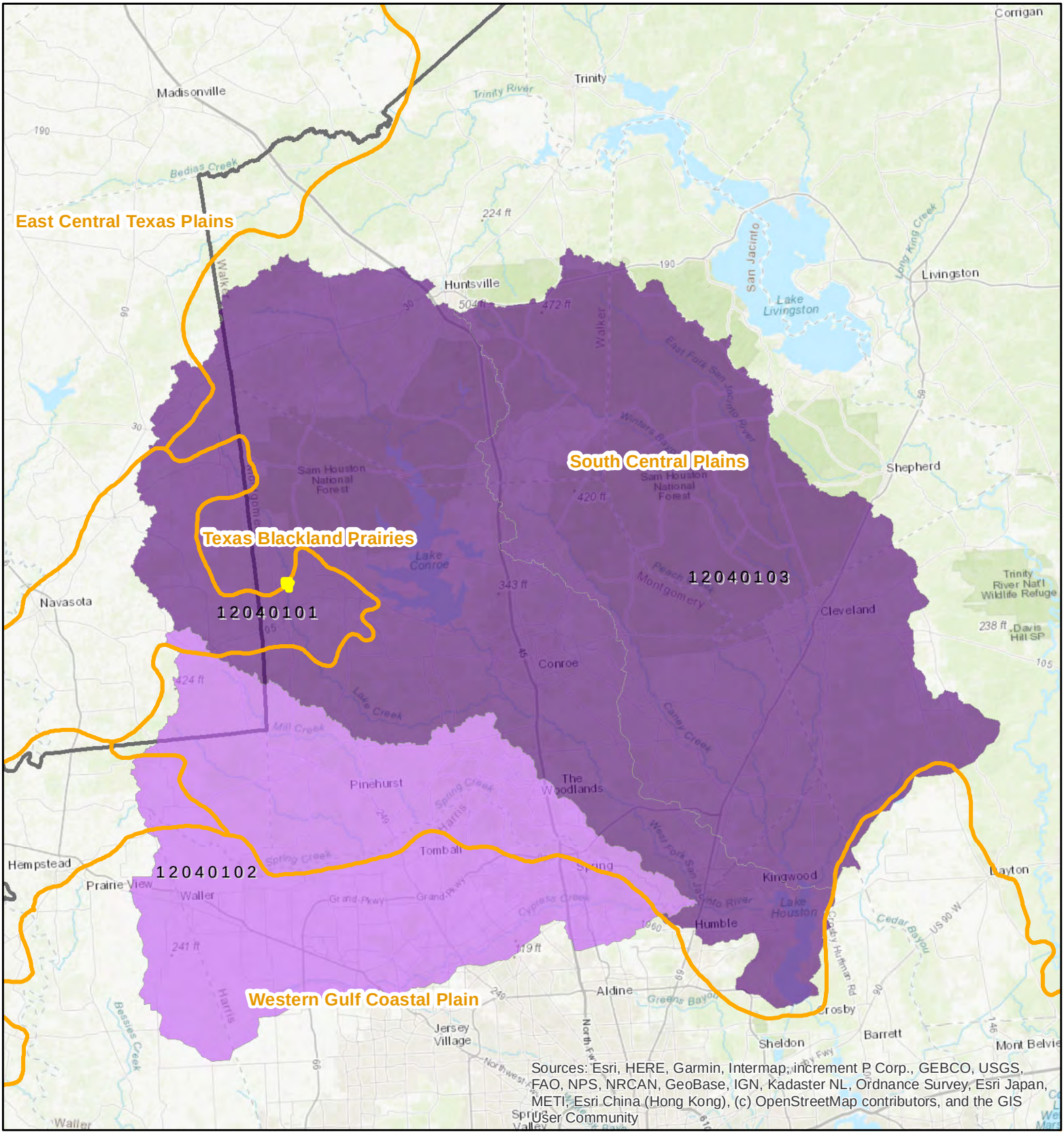
SSURGO SOILS MAP

Montgomery County, TX

Created :	TSC/ArcView10
Approved :	SR
Date :	01/08/2019
Map # :	F15_Soils.mxd

DELTA LAND SERVICES

FIGURE 15



Lake Creek (225.2 ac)

Level III Ecoregion

Primary Service Area: West Fork San Jacinto (12040101); East Fork San Jacinto (12040103)

Secondary Service Area: Spring (12040102)

District Boundaries

10 5 0 10

Miles

Proposed Lake Creek Mitigation Bank

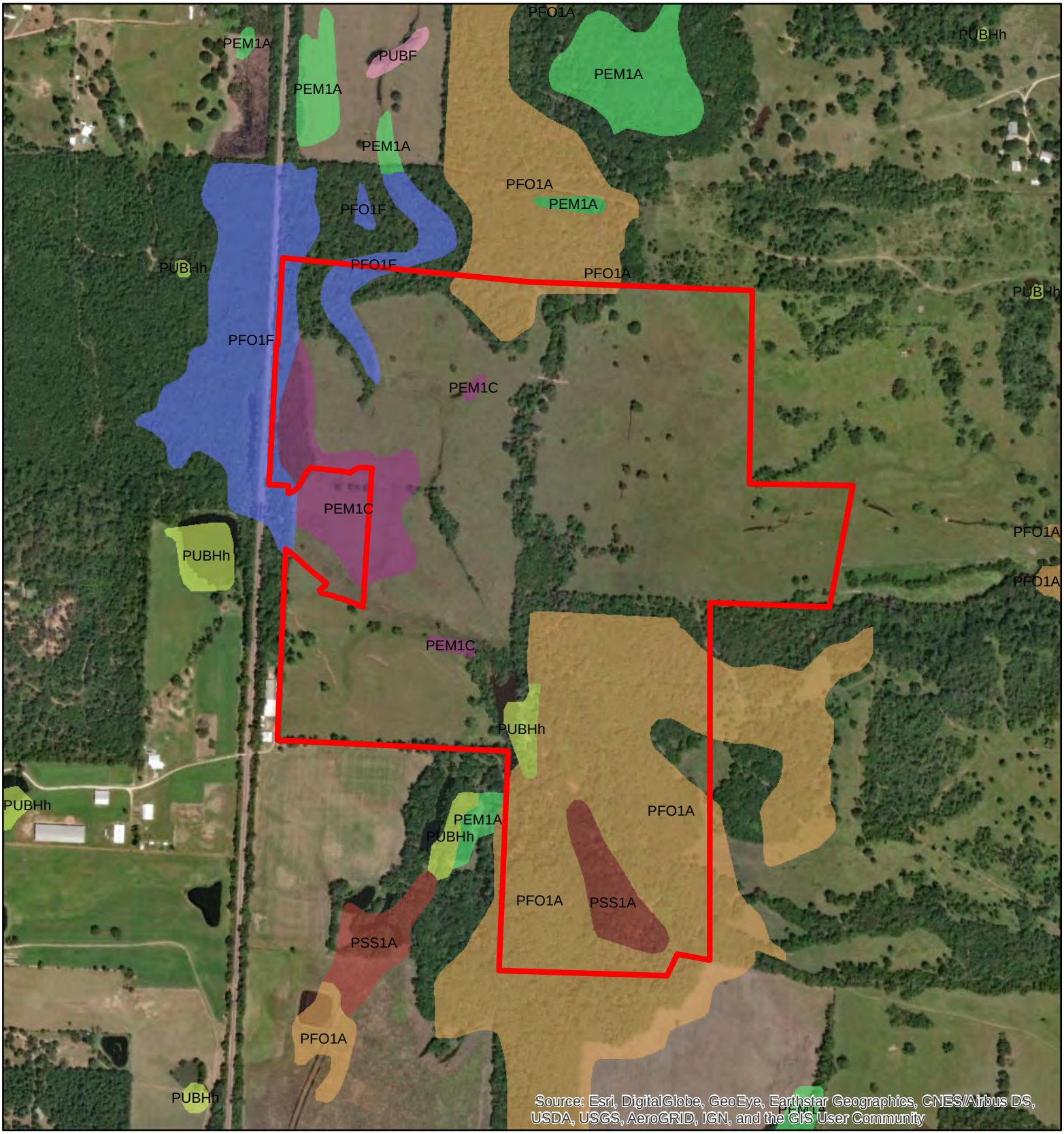
SERVICE AREA MAP

Montgomery County, TX

Created :	TSC/ArcView10
Approved :	CB
Date :	03/25/2020
Map # :	F16_Watershed.mxd

DELTA LAND SERVICES

FIGURE 16



Lake Creek (225.2 ac)
PEM1A
PEM1C
PEM1Fh
PFO1A
PFO1C
PFO1F
PSS1A
PUBF
PUBHh

N

800 400 0 800

Feet

Proposed Lake Creek Mitigation Bank

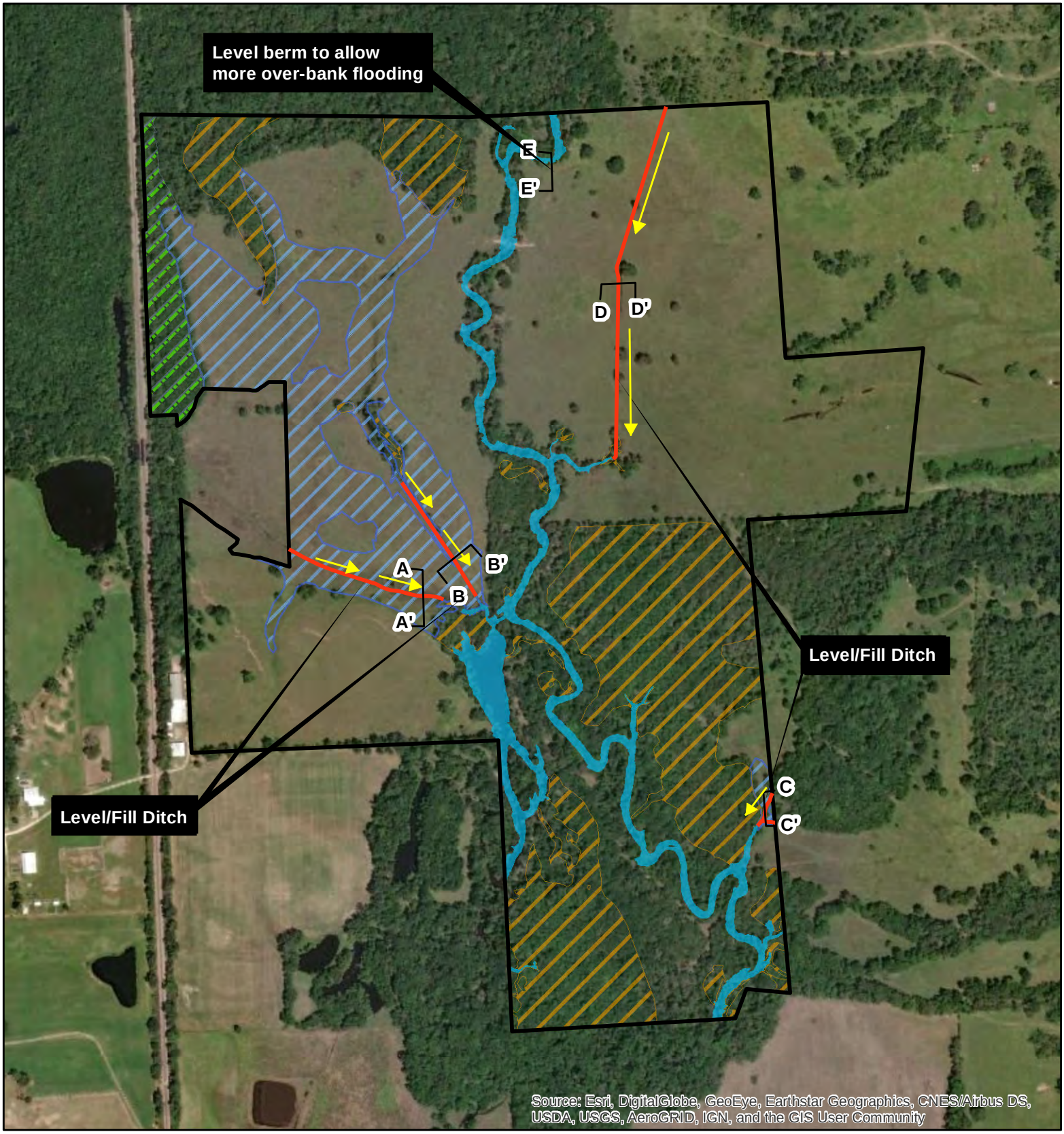
NATIONAL WETLAND INVENTORY

Montgomery County, TX

Created :	TSC/ArcView10
Approved :	SR
Date :	01/08/2019
Map # :	F17_NWI.mxd

DELTA LAND SERVICES

FIGURE 17



Lake Creek (225.2 ac)
Ditch
Existing Emergent Wetlands (28.3 ac)
Existing Scrub/Shrub Wetlands (4.5 ac)
Existing Forested Wetlands (40.3 ac)
Other Waters of the U.S. (9.2 ac) (10,476 LF)
Water Flow

600 300 0 600
Feet

Planview

HYDROLOGY PLAN VIEW WITH VERIFIED WATERS OF THE US

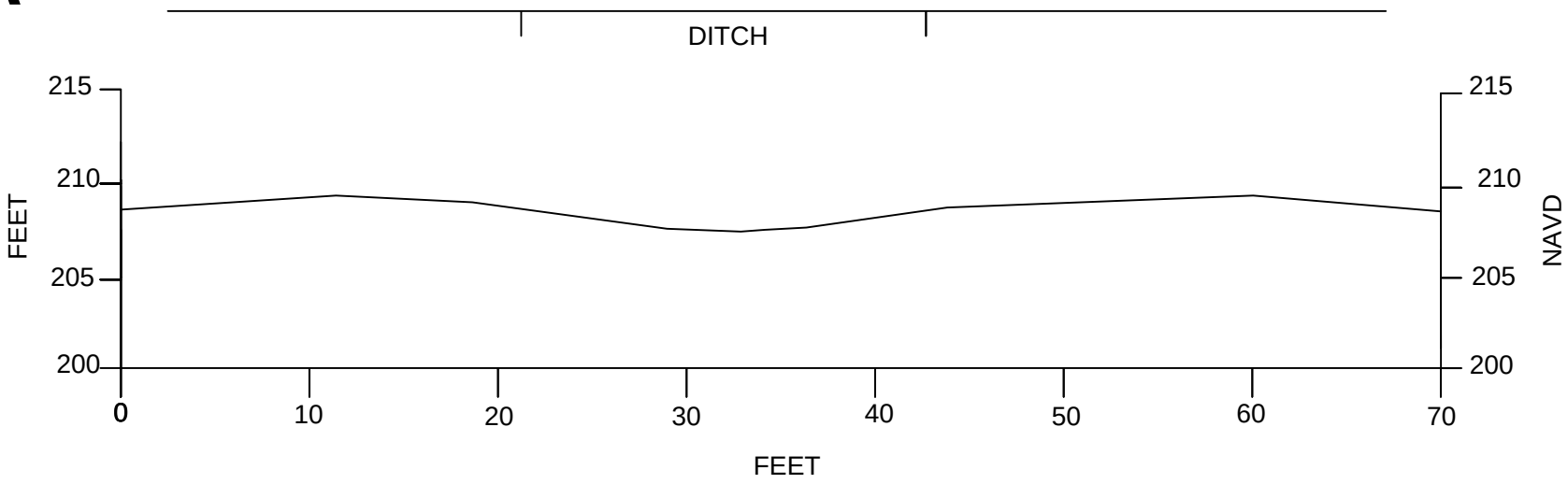
Montgomery County, TX

Created :	TSC/ArcView10
Approved :	SR
Date :	05/16/2019
Map # :	F18_Planview.mxd

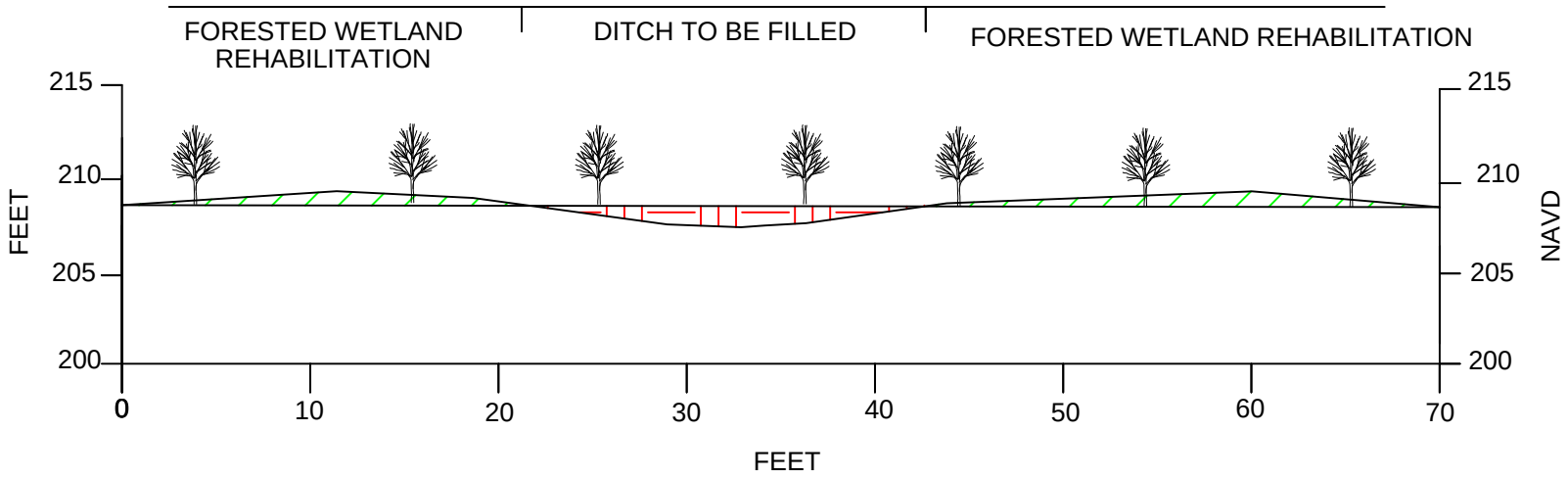
DELTA LAND SERVICES

FIGURE 18

EXISTING CROSS-SECTION A



PROPOSED CROSS-SECTION A



PROPOSED EXCAVATION

PROPOSED EARTHEN FILL

EXISTING WATER

Lake Creek Mitigation Bank

CROSS-SECTION A

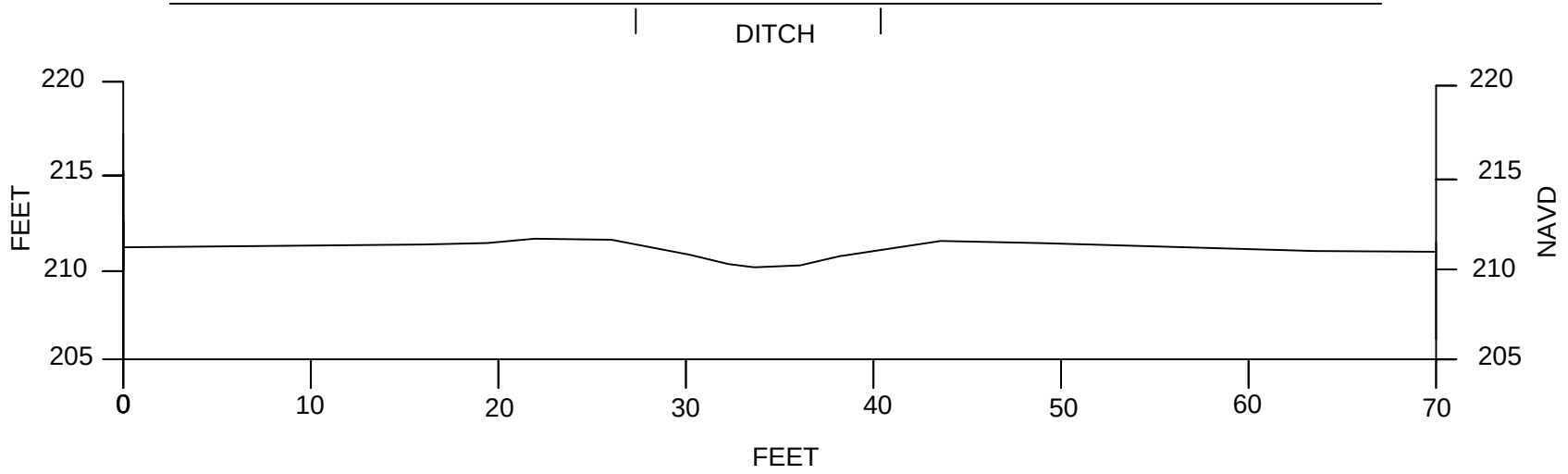
MONTGOMERY COUNTY, TX

Created:	HJS/AutoCAD
Approved:	CB
Date:	4/17/2019
Dwg. No.:	LakeCreekXSection.dwg

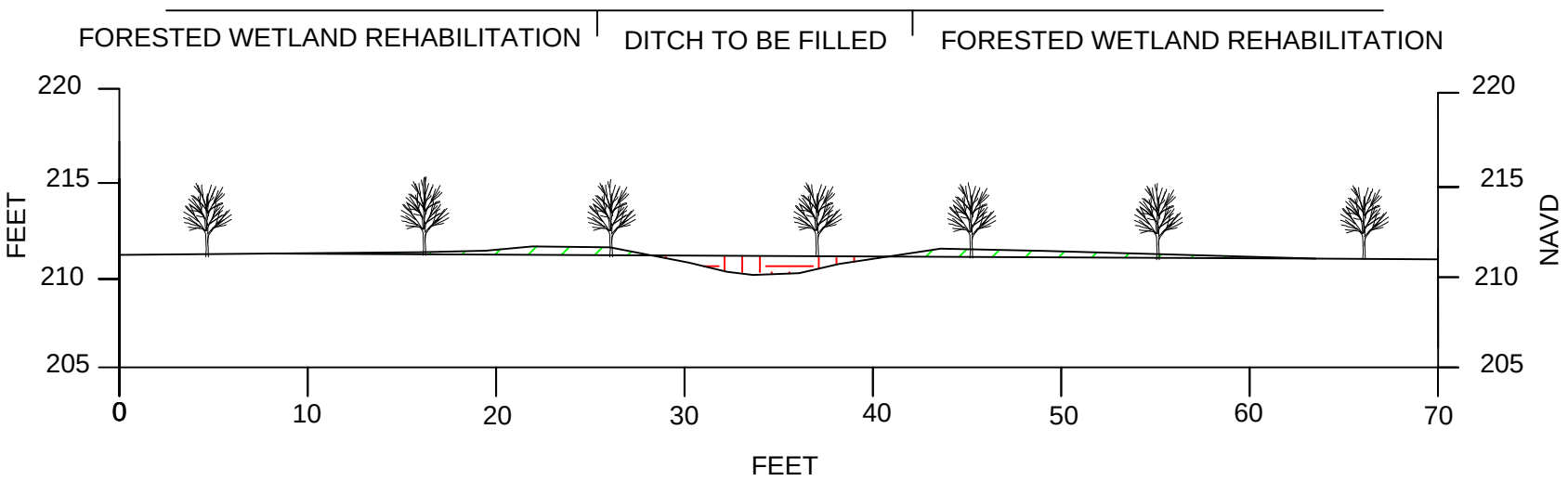
DELTA LAND SERVICES

FIGURE 19A

EXISTING CROSS-SECTION B



PROPOSED CROSS-SECTION B



PROPOSED EXCAVATION

PROPOSED EARTHEN FILL

EXISTING WATER

Lake Creek Mitigation Bank

CROSS-SECTION B

MONTGOMERY COUNTY, TX

Created:	HJS/AutoCAD
Approved:	CB
Date:	4/17/2019
Dwg. No.:	LakeCreekXSection.dwg

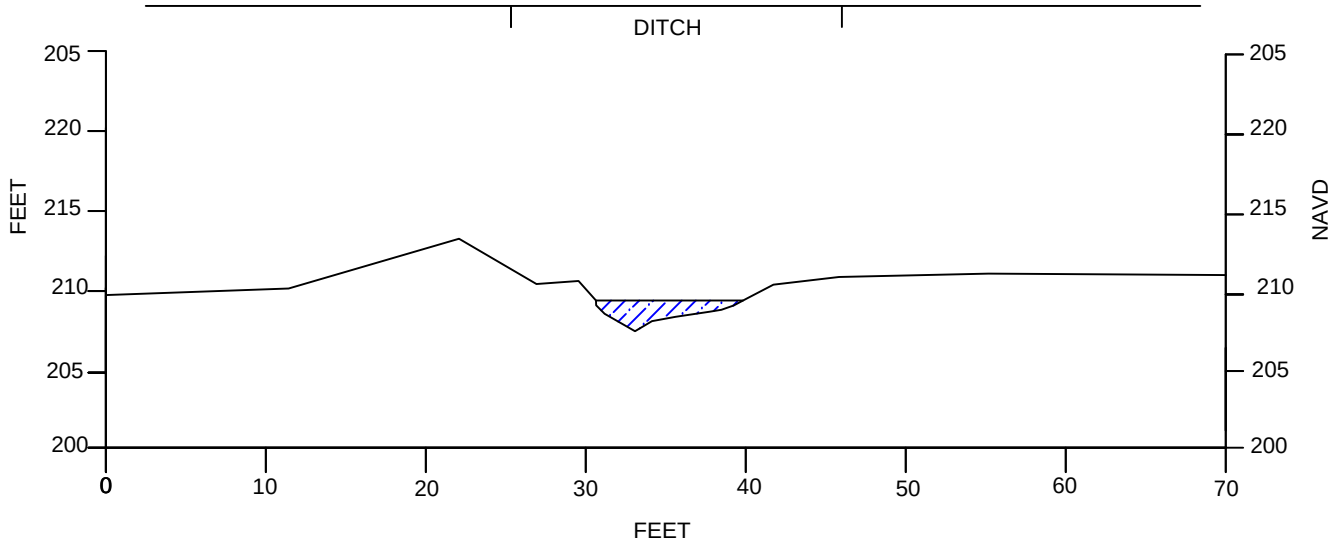
DELTA LAND SERVICES

FIGURE 19B

EXISTING CROSS-SECTION C

C

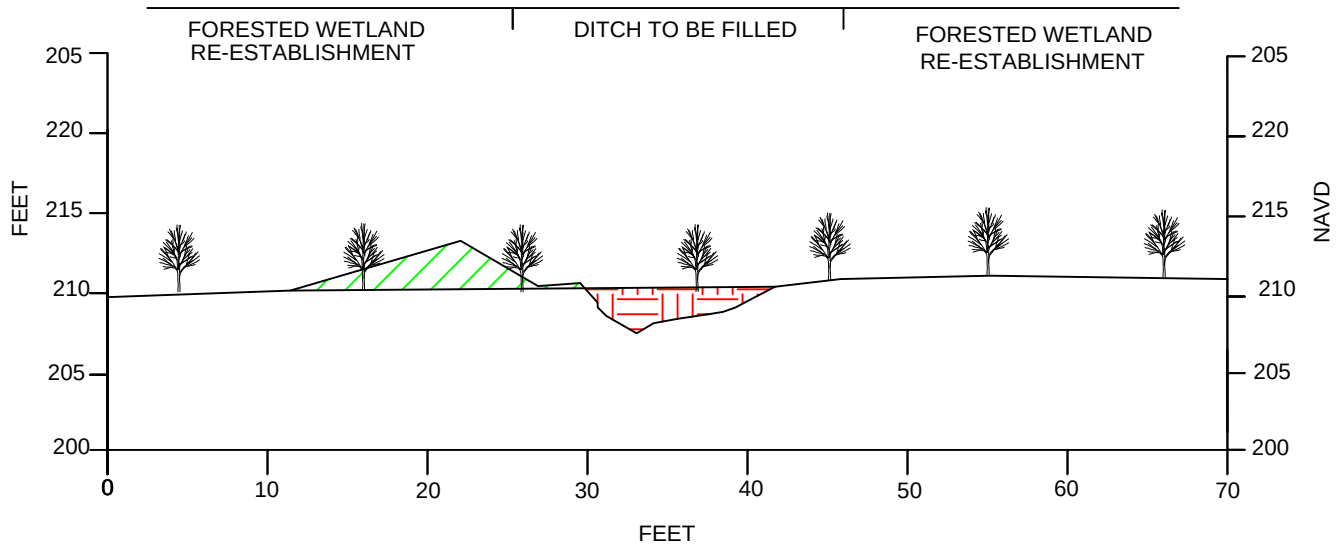
C'



PROPOSED CROSS-SECTION C

C

C'



PROPOSED EXCAVATION

PROPOSED EARTHEN FILL

EXISTING WATER

Lake Creek Mitigation Bank

CROSS-SECTION C

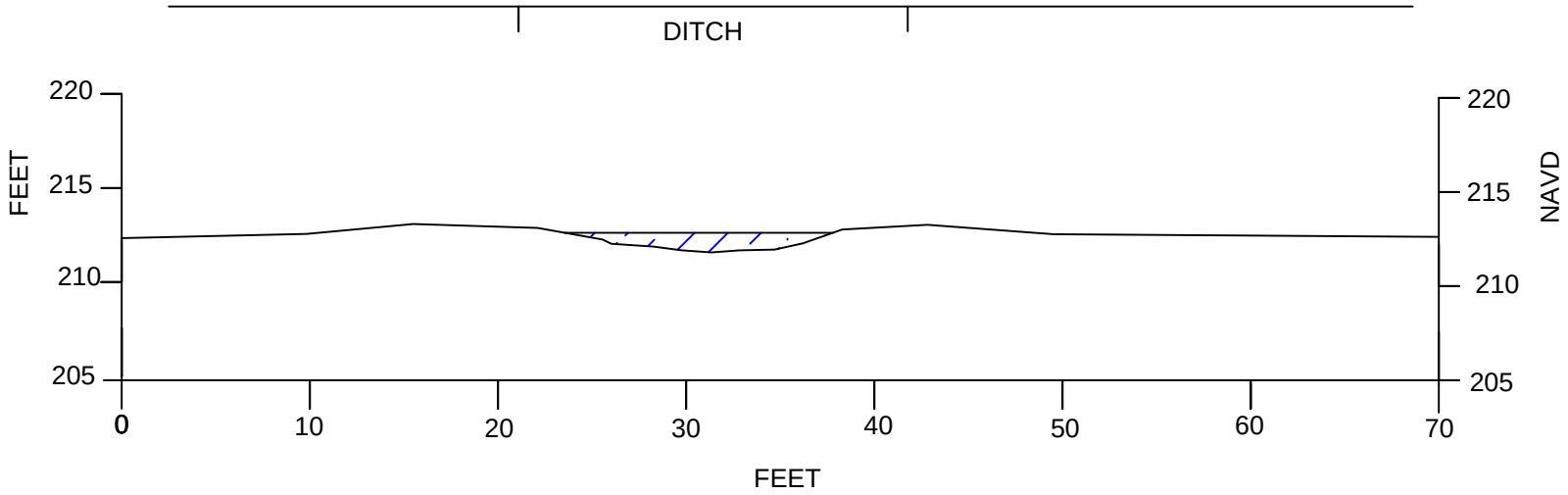
MONTGOMERY COUNTY, TX

Created:	HJS/AutoCAD
Approved:	CB
Date:	4/17/2019
Dwg. No.:	LakeCreekXSection.dwg

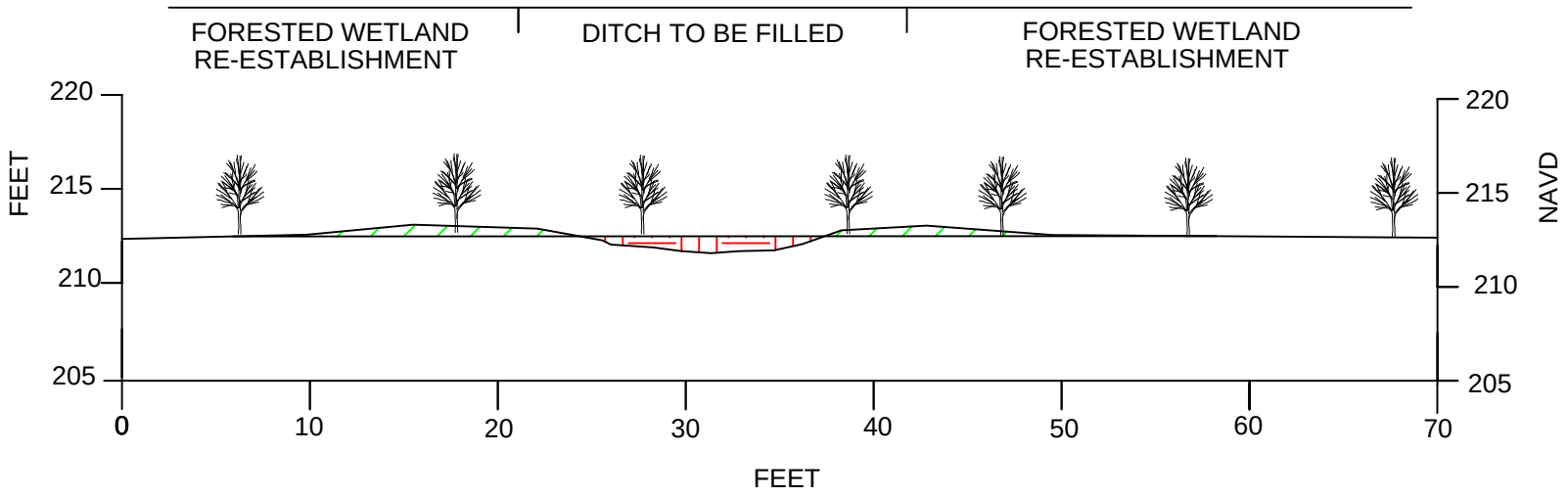
DELTA LAND SERVICES

FIGURE 19C

EXISTING CROSS-SECTION D



PROPOSED CROSS-SECTION D



PROPOSED EXCAVATION

PROPOSED EARTHEN FILL

EXISTING WATER

Lake Creek Mitigation Bank

CROSS-SECTION D

MONTGOMERY COUNTY, TX

Created:	HJS/AutoCAD
Approved:	CB
Date:	4/17/2019
Dwg. No.:	LakeCreekXSection.dwg

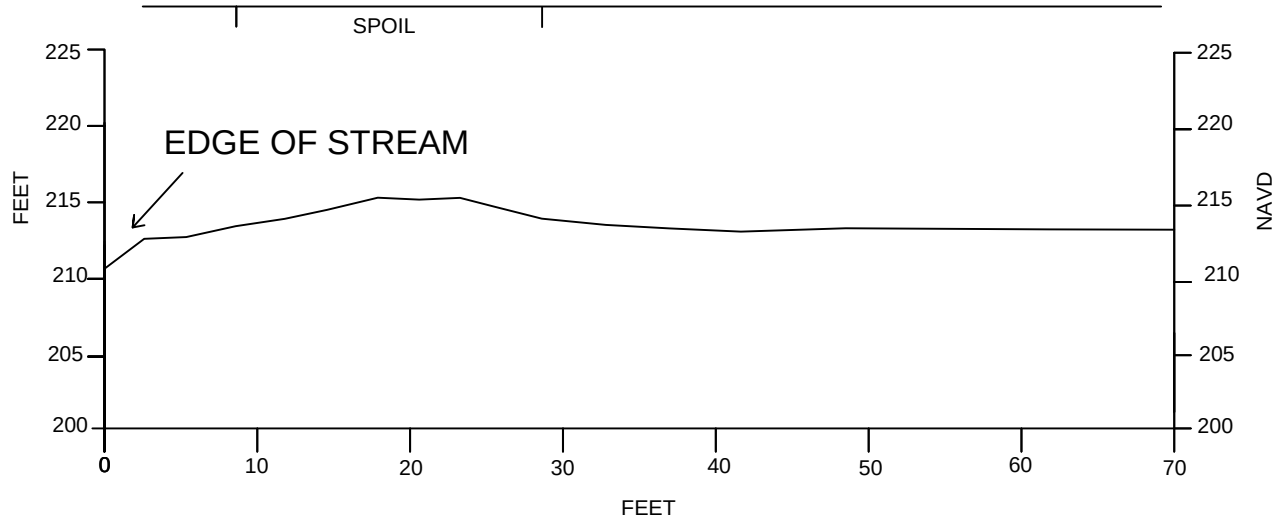
DELTA LAND SERVICES

FIGURE 19D

E

EXISTING CROSS-SECTION E

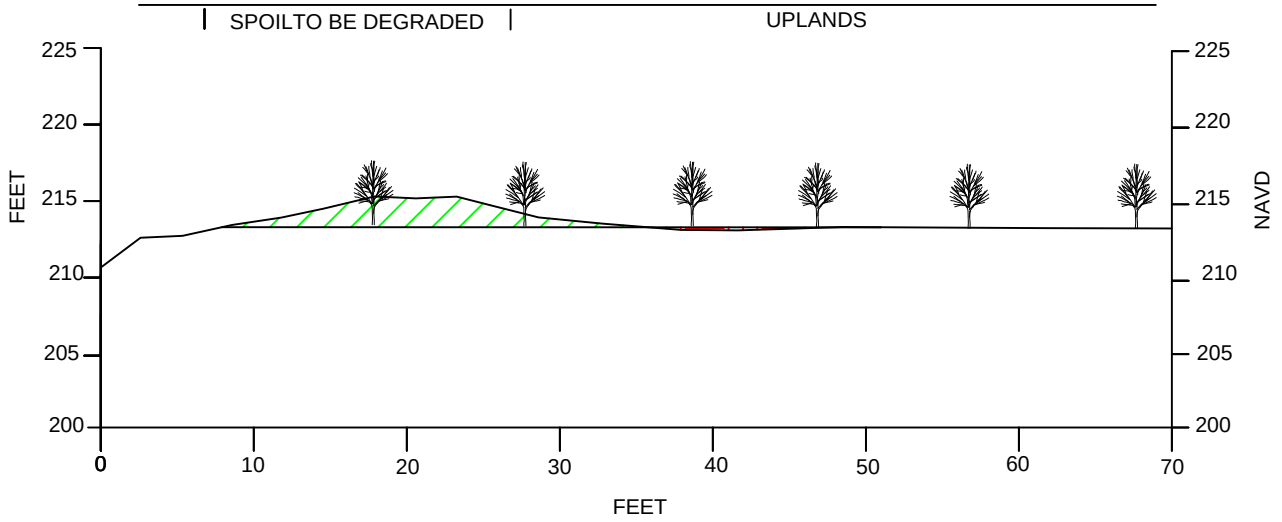
E'



E

PROPOSED CROSS-SECTION E

E'



PROPOSED EXCAVATION

PROPOSED EARTHEN FILL

EXISTING WATER

Lake Creek Mitigation Bank

CROSS-SECTION E

MONTGOMERY COUNTY, TX

Created:	HJS/AutoCAD
Approved:	CB
Date:	4/17/2019
Dwg. No.:	LakeCreekXSection.dwg

DELTA LAND SERVICES

FIGURE 19E

Appendix B

Approved Jurisdictional Determination

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, GALVESTON DISTRICT
P. O. BOX 1229
GALVESTON, TEXAS 77553-1229

March 18, 2020

Compliance Branch

SUBJECT: **SWG-2018-00326** – Delta Land Services, LLC; Approved Jurisdictional Determination (AJD) for an Approximate 231.7-Acre Site of the Proposed Lake Creek Mitigation Bank Located Approximately 1,135 Feet West-Southwest of the Gay Lake Road Western Terminus in Montgomery, Montgomery County, Texas

Mr. Stephen Ross
Delta Land Services, LLC
6750 West Loop South #780
Bellaire, Texas 77401

Dear Mr. Ross:

This is in response to the February 16, 2018 request for a wetland delineation verification and approved jurisdictional determination for an approximate 231.7-acre site of the proposed Lake Creek Mitigation Bank. The subject site is located approximately 1,135 linear feet west-southwest of the Gay Lake Road western terminus in Montgomery, Montgomery County, Texas (map enclosed).

Based upon the February 22, 2019 site visit, the submitted wetland delineation report and maps, and offsite data the subject site contains waters of the United States (U.S.), specifically approximately 9.24 acres (10,476 linear feet) of Lake Creek, a relatively permanent water (RPW), and approximately 73.3 acres of wetlands directly abutting Lake Creek, comprised of approximately 28.3 acres herbaceous, 40.4 acres forested, and 4.5 acres scrub-shrub. The subject site wetlands were evaluated according to the 1987 Corps of Engineers Wetland Delineation Manual (Manual) and the Atlantic and Gulf Coastal Plain Region and Great Plains Region Supplements to the Manual. Wetlands 1 through 22, comprising a total of approximately 73.3 acres, are directly abutting Lake Creek, and are therefore adjacent to a RPW. Therefore, a Department of the Army permit is required prior to the discharge of any dredged and/or fill material into these waters of the U.S. This approved jurisdictional determination will remain valid for five (5) years from the date of the final letter, unless new information warrants re-visitation or re-issuance prior to the expiration date.

Areas of Federal Interests (federal projects, and/or work areas) may be located within the proposed project area. Any activities in these federal interest areas would also be subject to federal regulations under the authority of Section 14 of the Rivers and Harbors Act of 1899 (33 U.S.C. 408 - Section 408). Section 408 makes it unlawful for anyone to alter in any manner, in whole or in part, any work (ship channel, flood control channels, seawalls, bulkhead, jetty, piers, etc.) built by the United States unless it is authorized by the Corps (i.e., Navigation and Operations Division).

Corps determinations are conducted to identify the limits of the Corps Clean Water Act jurisdiction for particular sites. This 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 request a certified wetland determination from the local office of the Natural Resources Conservation Service prior to starting work.

If you object to this determination, you may request an administrative appeal under Corps regulations at 33 CFR Part 331.5. Also enclosed are a combined Notification of Administrative Appeal Options and Process (NAP) and Request for Appeal (RFA) form. If you request to appeal this determination you must submit a completed RFA to the Southwestern Division Office at the following address:

Mr. Elliott Carman
Administrative Appeals Officer
Southwestern Division, USACE (CESWD-PD-O)
U.S. Army Corps of Engineers
1100 Commerce Street, Suite 831
Dallas, Texas 75242-1317
Telephone: 469-487-7061; FAX: 469-487-7199

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete; that it meets the criteria for appeal under 33 CFR Part 331.5, and that it has been received by the Division Office within **60 days** of the date of the NAP. It is not necessary to submit an RFA form to the Division office if you do not object to the determination in this letter.

If you have any questions please reference **SWG-2018-00326** and contact me at the letterhead address or by telephone at 409-766-3016. To assist us in improving our service to you, please complete the survey found at http://corpsmapu.usace.army.mil/cm_apex/f?p=136:4:0.

Sincerely,

Kevin Mannie
Regulatory Project Manager

Enclosures

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: **DELTA LAND SERVICES, LLC**	File Number: **SWG 2018-00326**	**Date: 03/18/2020**
Attached is:		See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
	PERMIT DENIAL	C
X	APPROVED JURISDICTIONAL DETERMINATION	D
	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/appeals.aspx or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

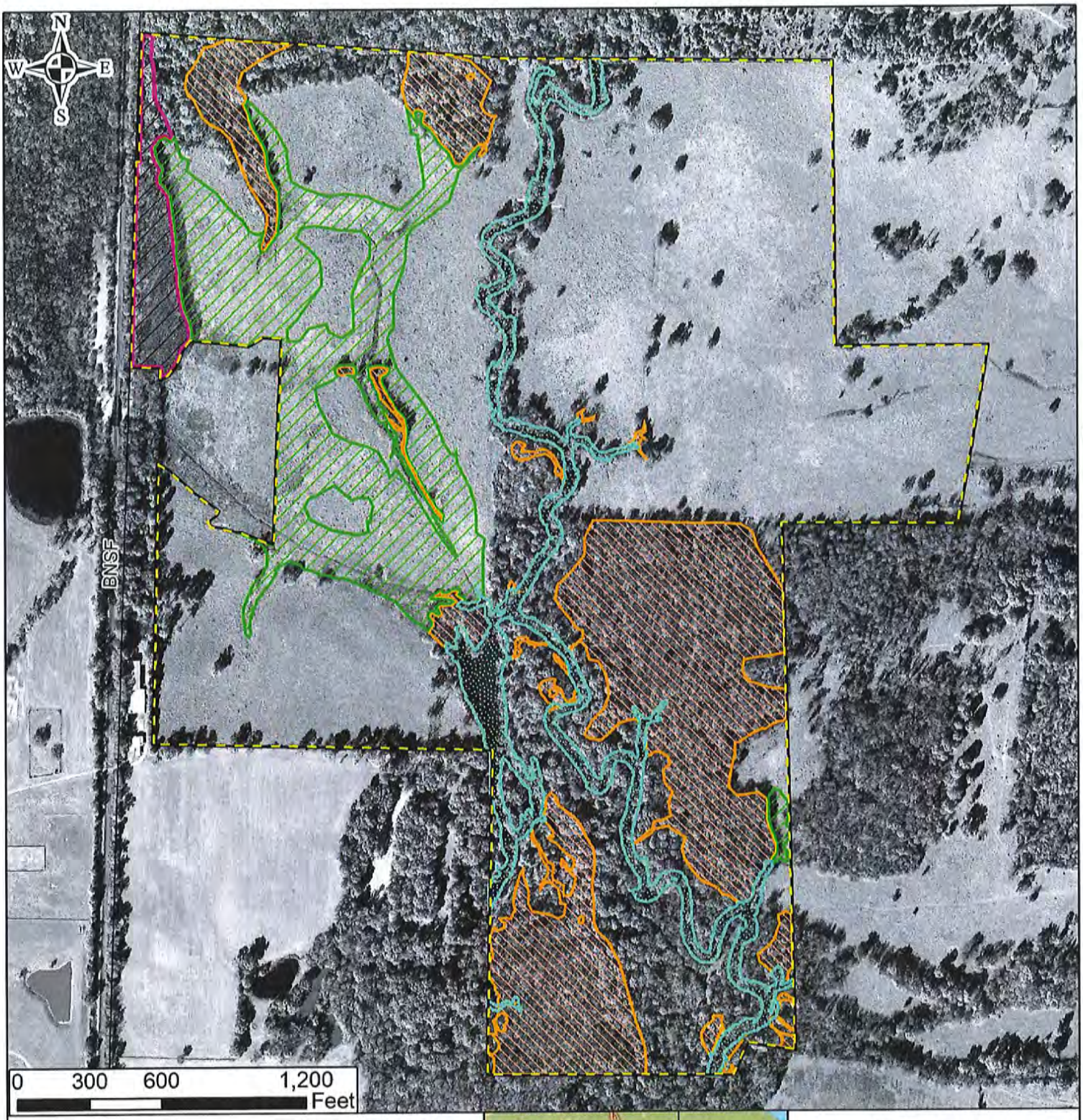
ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact: Mr. Kevin Mannie Project Manager CESWG-RDC U.S. Army Corps of Engineers P.O. BOX 1229 Galveston, Texas 77553-1229 Telephone: 409-766-3016; Fax: 409-766-3931	If you only have questions regarding the appeal process you may also contact: Mr. Elliott Carman Administrative Appeals Review Officer (CESWD-PD-O) U.S. Army Corps of Engineers 1100 Commerce Street, Suite 831 Dallas , Texas 75242-1317 469-487-7061

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

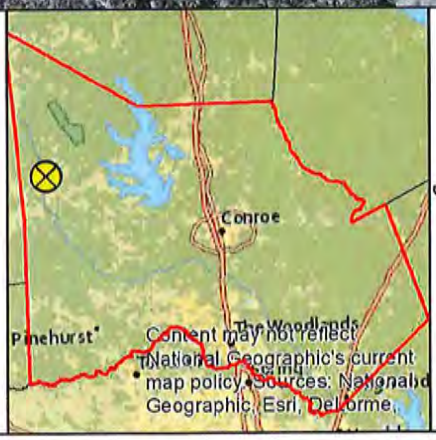
_____ Signature of appellant or agent.	Date:	Telephone number:



SWG-2018-00326
Delta Land Services, LLC
Lake Creek Mitigation Bank Site
Approved Jurisdictional Determination
Montgomery, Montgomery County, Texas

Review_Area ~ 231.7 ac
Lake_Creek_OHWM ~ 9.24 ac (10,476 lf)

Wetlands
PEM ~ 28.3 ac
PFO ~ 40.4 ac
PSS ~ 4.5 ac



Imagery Source: DigitalGlobe, 1.0-meter Black and White
Imagery Date:18 November 2019
Note: Review area reflects neither property boundaries nor ownership.

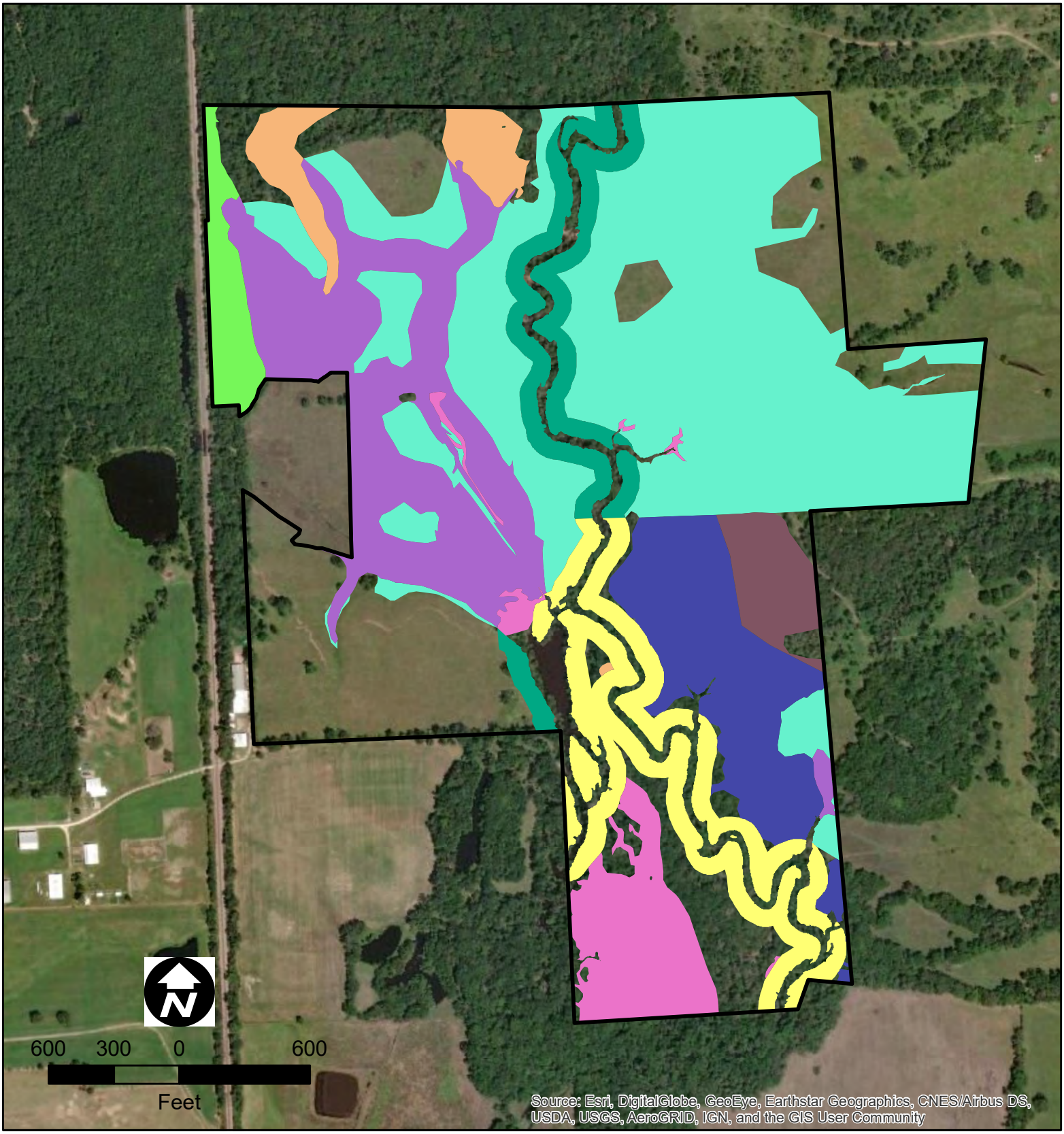
Appendix C

Draft Credit Determination and Stream Condition Assessment Report

Table 1. Predicted iHGM Riverine Forested Wetland FCU Lift by WAA.

WAA1 Riverine Forested Preservation 11.0 Acres	**Year 0 Baseline**	**Year 10 Lift**	**Total Lift by Function***		**Total PFO Lift**
Physical	10.4	10.4	1.04		**85.17**
Biological	9.2	9.2	0.92		**93.05**
Chemical	10.1	10.1	1.01		**79.71**
WAA2 Riverine Forested Preservation 16.6 Acres	**Year 0 Baseline**	**Year 10 Lift**	**Total Lift by Function***		
Physical	15.4	15.4	1.54		
Biological	12.3	12.3	1.23		
Chemical	14.8	14.8	1.48		
WAA3 Riverine Forested Preservation 4.7 Acres	**Year 0 Baseline**	**Year 10 Lift**	**Total Lift by Function***		
Physical	4.1	4.1	0.41		
Biological	3.5	3.5	0.35		
Chemical	4.1	4.1	0.41		
WAA4 Riverine Forested Preservation 5.9 Acres	**Year 0 Baseline**	**Year 10 Lift**	**Total Lift by Function***		
Physical	5.0	5.0	0.50		
Biological	4.7	4.7	0.47		
Chemical	5.1	5.1	0.51		
WAA5 Riverine Forested Enhancement 4.5 acres	**Year 0 Baseline**	**Year 10 Lift**	**Total Lift by Function**		
Physical	3.3	3.7	0.4		
Biological	2.7	3.9	1.2		
Chemical	3.7	3.8	0.2		
WAA6 Riverine Forested Rehabilitation 28.3 acres	**Year 0 Baseline**	**Year 10 Lift**	**Total Lift by Function**		
Physical	10.6	25.0	14.3		
Biological	5.9	26.8	20.9		
Chemical	12.5	24.6	12.2		
WAA7 Riverine Forested Re-establishement 71.9 acres	**Year 0 Baseline**	**Year 10 Lift**	**Total Lift by Function**		
Physical	0.0	66.9	66.9		
Biological	0.0	68.0	68.0		
Chemical	0.0	64.0	64.0		

*PFO preservation, 10% of baseline FCU was used for credit generation



- Lake Creek (225.2 ac)
- WAA 1 – Preservation Frequently Flooded (11.0 ac)
- WAA 2 – Preservation Semi-Frequently Flooded (16.6 ac)
- WAA 3 – Preservation Medium-aged (4.7 ac)
- WAA 4 – Preservation Hickory Dominated (5.9 ac)
- WAA 5 – Forested Wetland Enhancement (4.5 acres)
- WAA 6 – Forested Wetland Rehabilitation (28.3 acres)
- WAA 7 – Forested Wetland Re-establishment (71.9 acres)
- Forested Riparian Stream Buffer Re-establishment (10.8 acres)
- Forested Riparian Stream Buffer Preservation (16.9 acres)

Proposed Lake Creek Mitigation Bank

WAA MAP

Montgomery County, TX

Created :	TSC/ArcView10
Approved :	CB
Date :	04/13/2020
Map # :	FC-1_WAA.mxd

DELTA LAND SERVICES

FIGURE C-1

Lake Creek Mitigation Bank

WAA 1

WAA1 Riverine Forested Preservation Year 0	**Riverine Forested**
Acreage	**11.00**
Variable	**Baseline**
Vdur: Duration of flooding	1.00
Vfreq: Frequency of flooding	1.00
Vtopo: Topography	0.70
Vcwd: Course woody debris	1.00
Vwood: Woody vegetation	1.00
Vtree: Tree species	0.50
Vrich: Tree richness/diversity	1.00
Vbasal: Tree basal area	1.00
Vdesity: Tree density	1.00
Vmid: Midstory (Shrub/sapling/woody vines)	0.50
Vherb: Herbaceous layer	1.00
Vdetritus: Detritus	1.00
Vredox: Redoximorphic process	0.10
Vsorpt: Sorptive Soil Properties	1.00
Vconnect: Connectivity to other habitat types	0.75

Physical FCI: Temporary Storage & Detention of Storage Water	0.949
Biological FCI: Maintain Plant and Animal Community	0.833
Chemical FCI: Removal & Sequestration of Elements & Compounds	0.920

Physical FCU: Temporary Storage & Detention of Storage Water	10.436
Biological FCU: Maintain Plant and Animal Community	9.167
Chemical FCU: Removal & Sequestration of Elements & Compounds	10.120

Lake Creek Mitigation Bank

WAA 1

WAA1 Riverine Forested Preservation Year 0	**Riverine Forested**
Acreage	**11.00**
Variable	**Post**
Vdur: Duration of flooding	1.00
Vfreq: Frequency of flooding	1.00
Vtopo: Topography	0.70
Vcwd: Course woody debris	1.00
Vwood: Woody vegetation	1.00
Vtree: Tree species	0.50
Vrich: Tree richness/diversity	1.00
Vbasal: Tree basal area	1.00
Vdesity: Tree density	1.00
Vmid: Midstory (Shrub/sapling/woody vines)	0.50
Vherb: Herbaceous layer	1.00
Vdetritus: Detritus	1.00
Vredox: Redoximorphic process	0.10
Vsorpt: Sorptive Soil Properties	1.00
Vconnect: Connectivity to other habitat types	0.75

Physical FCI: Temporary Storage & Detention of Storage Water	0.949
Biological FCI: Maintain Plant and Animal Community	0.833
Chemical FCI: Removal & Sequestration of Elements & Compounds	0.920

Physical FCU: Temporary Storage & Detention of Storage Water	10.44
Biological FCU: Maintain Plant and Animal Community	9.17
Chemical FCU: Removal & Sequestration of Elements & Compounds	10.12

Lake Creek Mitigation Bank

WAA 2

WAA2 Riverine Forested Preservation Year 0 (Semi-frequent flooding)	**Riverine Forested**
Acreage	**16.60**
Variable	**Baseline**
Vdur: Duration of flooding	0.75
Vfreq: Frequency of flooding	1.00
Vtopo: Topography	1.00
Vcwd: Course woody debris	1.00
Vwood: Woody vegetation	1.00
Vtree: Tree species	0.50
Vrich: Tree richness/diversity	1.00
Vbasal: Tree basal area	0.80
Vdesity: Tree density	0.60
Vmid: Midstory (Shrub/sapling/woody vines)	0.50
Vherb: Herbaceous layer	0.50
Vdetritus: Detritus	1.00
Vredox: Redoximorphic process	0.10
Vsorpt: Sorptive Soil Properties	1.00
Vconnect: Connectivity to other habitat types	0.75

Physical FCI: Temporary Storage & Detention of Storage Water	0.931
Biological FCI: Maintain Plant and Animal Community	0.742
Chemical FCI: Removal & Sequestration of Elements & Compounds	0.890

Physical FCU: Temporary Storage & Detention of Storage Water	15.45
Biological FCU: Maintain Plant and Animal Community	12.31
Chemical FCU: Removal & Sequestration of Elements & Compounds	14.77

Lake Creek Mitigation Bank

WAA 2

WAA2 Riverine Forested Preservation Year 10 (Semi-frequent flooding)	**Riverine Forested**
Acreage	**16.60**
Variable	**Post**
Vdur: Duration of flooding	0.75
Vfreq: Frequency of flooding	1.00
Vtopo: Topography	1.00
Vcwd: Course woody debris	1.00
Vwood: Woody vegetation	1.00
Vtree: Tree species	0.50
Vrich: Tree richness/diversity	1.00
Vbasal: Tree basal area	0.80
Vdesity: Tree density	0.60
Vmid: Midstory (Shrub/sapling/woody vines)	0.50
Vherb: Herbaceous layer	0.50
Vdetritus: Detritus	1.00
Vredox: Redoximorphic process	0.10
Vsorpt: Sorptive Soil Properties	1.00
Vconnect: Connectivity to other habitat types	0.75

Physical FCI: Temporary Storage & Detention of Storage Water	0.931
Biological FCI: Maintain Plant and Animal Community	0.742
Chemical FCI: Removal & Sequestration of Elements & Compounds	0.890

Physical FCU: Temporary Storage & Detention of Storage Water	15.45
Biological FCU: Maintain Plant and Animal Community	12.31
Chemical FCU: Removal & Sequestration of Elements & Compounds	14.77

Lake Creek Mitigation Bank

WAA 3

WAA3 Riverine Forested Preservation Year 0 (Medium Age)	**Riverine Forested**
Acreage	**4.70**
Variable	**Baseline**
Vdur: Duration of flooding	0.75
Vfreq: Frequency of flooding	1.00
Vtopo: Topography	0.70
Vcwd: Course woody debris	1.00
Vwood: Woody vegetation	1.00
Vtree: Tree species	0.30
Vrich: Tree richness/diversity	1.00
Vbasal: Tree basal area	0.60
Vdesity: Tree density	1.00
Vmid: Midstory (Shrub/sapling/woody vines)	0.75
Vherb: Herbaceous layer	0.50
Vdetritus: Detritus	1.00
Vredox: Redoximorphic process	0.10
Vsorpt: Sorptive Soil Properties	1.00
Vconnect: Connectivity to other habitat types	0.75

Physical FCI: Temporary Storage & Detention of Storage Water	0.883
Biological FCI: Maintain Plant and Animal Community	0.746
Chemical FCI: Removal & Sequestration of Elements & Compounds	0.870

Physical FCU: Temporary Storage & Detention of Storage Water	4.15
Biological FCU: Maintain Plant and Animal Community	3.51
Chemical FCU: Removal & Sequestration of Elements & Compounds	4.09

Lake Creek Mitigation Bank

WAA 3

WAA3 Riverine Forested Preservation Year 10 (Medium Age)	**Riverine Forested**
Acreage	**4.70**
Variable	**Post**
Vdur: Duration of flooding	0.75
Vfreq: Frequency of flooding	1.00
Vtopo: Topography	0.70
Vcwd: Course woody debris	1.00
Vwood: Woody vegetation	1.00
Vtree: Tree species	0.30
Vrich: Tree richness/diversity	1.00
Vbasal: Tree basal area	0.60
Vdesity: Tree density	1.00
Vmid: Midstory (Shrub/sapling/woody vines)	0.75
Vherb: Herbaceous layer	0.50
Vdetritus: Detritus	1.00
Vredox: Redoximorphic process	0.10
Vsorpt: Sorptive Soil Properties	1.00
Vconnect: Connectivity to other habitat types	0.75

Physical FCI: Temporary Storage & Detention of Storage Water	0.883
Biological FCI: Maintain Plant and Animal Community	0.746
Chemical FCI: Removal & Sequestration of Elements & Compounds	0.870

Physical FCU: Temporary Storage & Detention of Storage Water	4.15
Biological FCU: Maintain Plant and Animal Community	3.51
Chemical FCU: Removal & Sequestration of Elements & Compounds	4.09

Lake Creek Mitigation Bank

WAA 4

WAA4 Riverine Forested Preservation Year 0 (Hickory dominated)	**Riverine Forested**
Acreage	**5.90**
Variable	**Baseline**
Vdur: Duration of flooding	0.75
Vfreq: Frequency of flooding	1.00
Vtopo: Topography	1.00
Vcwd: Course woody debris	0.50
Vwood: Woody vegetation	1.00
Vtree: Tree species	1.00
Vrich: Tree richness/diversity	1.00
Vbasal: Tree basal area	0.60
Vdesity: Tree density	1.00
Vmid: Midstory (Shrub/sapling/woody vines)	0.50
Vherb: Herbaceous layer	0.50
Vdetritus: Detritus	1.00
Vredox: Redoximorphic process	0.10
Vsorpt: Sorptive Soil Properties	1.00
Vconnect: Connectivity to other habitat types	1.00

Physical FCI: Temporary Storage & Detention of Storage Water	0.850
Biological FCI: Maintain Plant and Animal Community	0.800
Chemical FCI: Removal & Sequestration of Elements & Compounds	0.857

Physical FCU: Temporary Storage & Detention of Storage Water	5.01
Biological FCU: Maintain Plant and Animal Community	4.72
Chemical FCU: Removal & Sequestration of Elements & Compounds	5.05

Lake Creek Mitigation Bank

WAA 4

WAA4 Riverine Forested Preservation Year 10 (Hickory dominated)	**Riverine Forested**
Acreage	**5.90**
Variable	**Post**
Vdur: Duration of flooding	0.75
Vfreq: Frequency of flooding	1.00
Vtopo: Topography	1.00
Vcwd: Course woody debris	0.50
Vwood: Woody vegetation	1.00
Vtree: Tree species	1.00
Vrich: Tree richness/diversity	1.00
Vbasal: Tree basal area	0.60
Vdesity: Tree density	1.00
Vmid: Midstory (Shrub/sapling/woody vines)	0.50
Vherb: Herbaceous layer	0.50
Vdetritus: Detritus	1.00
Vredox: Redoximorphic process	0.10
Vsorpt: Sorptive Soil Properties	1.00
Vconnect: Connectivity to other habitat types	1.00

Physical FCI: Temporary Storage & Detention of Storage Water	0.850
Biological FCI: Maintain Plant and Animal Community	0.800
Chemical FCI: Removal & Sequestration of Elements & Compounds	0.857

Physical FCU: Temporary Storage & Detention of Storage Water	5.01
Biological FCU: Maintain Plant and Animal Community	4.72
Chemical FCU: Removal & Sequestration of Elements & Compounds	5.05

Lake Creek Mitigation Bank

WAA 5

WAA5 Riverine Forested Enhancement Year 0	**Riverine Forested**
Acreage	**4.50**
Variable	**Baseline**
Vdur: Duration of flooding	1.00
Vfreq: Frequency of flooding	0.75
Vtopo: Topography	0.40
Vcwd: Course woody debris	0.50
Vwood: Woody vegetation	1.00
Vtree: Tree species	0.30
Vrich: Tree richness/diversity	0.80
Vbasal: Tree basal area	0.60
Vdesity: Tree density	0.40
Vmid: Midstory (Shrub/sapling/woody vines)	1.00
Vherb: Herbaceous layer	0.50
Vdetritus: Detritus	1.00
Vredox: Redoximorphic process	0.10
Vsorpt: Sorptive Soil Properties	1.00
Vconnect: Connectivity to other habitat types	0.75

Physical FCI: Temporary Storage & Detention of Storage Water	0.741
Biological FCI: Maintain Plant and Animal Community	0.600
Chemical FCI: Removal & Sequestration of Elements & Compounds	0.817

Physical FCU: Temporary Storage & Detention of Storage Water	3.33
Biological FCU: Maintain Plant and Animal Community	2.70
Chemical FCU: Removal & Sequestration of Elements & Compounds	3.68

Lake Creek Mitigation Bank

WAA 5

WAA5 Riverine Forested Enhancement Year 10	**Riverine Forested**
Acreage	**4.50**
Variable	**Post**
Vdur: Duration of flooding	1.00
Vfreq: Frequency of flooding	0.75
Vtopo: Topography	0.40
Vcwd: Course woody debris	1.00
Vwood: Woody vegetation	1.00
Vtree: Tree species	0.50
Vrich: Tree richness/diversity	0.80
Vbasal: Tree basal area	0.80
Vdesity: Tree density	1.00
Vmid: Midstory (Shrub/sapling/woody vines)	1.00
Vherb: Herbaceous layer	1.00
Vdetritus: Detritus	1.00
Vredox: Redoximorphic process	0.10
Vsorpt: Sorptive Soil Properties	1.00
Vconnect: Connectivity to other habitat types	1.00

Physical FCI: Temporary Storage & Detention of Storage Water	0.832
Biological FCI: Maintain Plant and Animal Community	0.867
Chemical FCI: Removal & Sequestration of Elements & Compounds	0.850

Physical FCU: Temporary Storage & Detention of Storage Water	3.75
Biological FCU: Maintain Plant and Animal Community	3.90
Chemical FCU: Removal & Sequestration of Elements & Compounds	3.83

Lake Creek Mitigation Bank

WAA 6

WAA6 Riverine Forested Rehabilitation Year 0	**Riverine Forested**
Acreage	**28.30**
Variable	**Baseline**
Vdur: Duration of flooding	0.50
Vfreq: Frequency of flooding	1.00
Vtopo: Topography	0.40
Vcwd: Course woody debris	0.10
Vwood: Woody vegetation	0.10
Vtree: Tree species	0.10
Vrich: Tree richness/diversity	0.10
Vbasal: Tree basal area	0.10
Vdesity: Tree density	0.10
Vmid: Midstory (Shrub/sapling/woody vines)	0.10
Vherb: Herbaceous layer	0.10
Vdetritus: Detritus	0.10
Vredox: Redoximorphic process	0.10
Vsorpt: Sorptive Soil Properties	1.00
Vconnect: Connectivity to other habitat types	0.75

Physical FCI: Temporary Storage & Detention of Storage Water	0.376
Biological FCI: Maintain Plant and Animal Community	0.208
Chemical FCI: Removal & Sequestration of Elements & Compounds	0.440

Physical FCU: Temporary Storage & Detention of Storage Water	10.64
Biological FCU: Maintain Plant and Animal Community	5.90
Chemical FCU: Removal & Sequestration of Elements & Compounds	12.45

Lake Creek Mitigation Bank

WAA 6

WAA6 Riverine Forested Rehabilitation Year 10	**Riverine Forested**
Acreage	**28.30**
Variable	**Post**
Vdur: Duration of flooding	0.75
Vfreq: Frequency of flooding	1.00
Vtopo: Topography	0.70
Vcwd: Course woody debris	1.00
Vwood: Woody vegetation	1.00
Vtree: Tree species	1.00
Vrich: Tree richness/diversity	1.00
Vbasal: Tree basal area	0.60
Vdesity: Tree density	1.00
Vmid: Midstory (Shrub/sapling/woody vines)	0.75
Vherb: Herbaceous layer	1.00
Vdetritus: Detritus	1.00
Vredox: Redoximorphic process	0.10
Vsorpt: Sorptive Soil Properties	1.00
Vconnect: Connectivity to other habitat types	1.00

Physical FCI: Temporary Storage & Detention of Storage Water	0.883
Biological FCI: Maintain Plant and Animal Community	0.946
Chemical FCI: Removal & Sequestration of Elements & Compounds	0.870

Physical FCU: Temporary Storage & Detention of Storage Water	24.98
Biological FCU: Maintain Plant and Animal Community	26.77
Chemical FCU: Removal & Sequestration of Elements & Compounds	24.62

Lake Creek Mitigation Bank

WAA 7

WAA7 Riverine Forested Re-establishment Year 0	**Riverine Forested**
Acreage	**71.90**
Variable	**Baseline**
Vdur: Duration of flooding	0.00
Vfreq: Frequency of flooding	0.00
Vtopo: Topography	0.00
Vcwd: Course woody debris	0.00
Vwood: Woody vegetation	0.00
Vtree: Tree species	0.00
Vrich: Tree richness/diversity	0.00
Vbasal: Tree basal area	0.00
Vdesity: Tree density	0.00
Vmid: Midstory (Shrub/sapling/woody vines)	0.00
Vherb: Herbaceous layer	0.00
Vdetritus: Detritus	0.00
Vredox: Redoximorphic process	0.00
Vsorpt: Sorptive Soil Properties	0.00
Vconnect: Connectivity to other habitat types	0.00

Physical FCI: Temporary Storage & Detention of Storage Water	0.000
Biological FCI: Maintain Plant and Animal Community	0.000
Chemical FCI: Removal & Sequestration of Elements & Compounds	0.000

Physical FCU: Temporary Storage & Detention of Storage Water	0.00
Biological FCU: Maintain Plant and Animal Community	0.00
Chemical FCU: Removal & Sequestration of Elements & Compounds	0.00

Lake Creek Mitigation Bank

WAA 7

WAA7 Riverine Forested Re-establishment Year 10	**Riverine Forested**
Acreage	**71.90**
Variable	**Post**
Vdur: Duration of flooding	0.75
Vfreq: Frequency of flooding	1.00
Vtopo: Topography	1.00
Vcwd: Course woody debris	1.00
Vwood: Woody vegetation	1.00
Vtree: Tree species	1.00
Vrich: Tree richness/diversity	1.00
Vbasal: Tree basal area	0.60
Vdensity: Tree density	1.00
Vmid: Midstory (Shrub/sapling/woody vines)	0.75
Vherb: Herbaceous layer	1.00
Vdetritus: Detritus	1.00
Vredox: Redoximorphic process	0.10
Vsorpt: Sorptive Soil Properties	1.00
Vconnect: Connectivity to other habitat types	1.00

Physical FCI: Temporary Storage & Detention of Storage Water	0.931
Biological FCI: Maintain Plant and Animal Community	0.946
Chemical FCI: Removal & Sequestration of Elements & Compounds	0.890

Physical FCU: Temporary Storage & Detention of Storage Water	66.91
Biological FCU: Maintain Plant and Animal Community	68.01
Chemical FCU: Removal & Sequestration of Elements & Compounds	63.99

STREAM CREDIT DETERMINATION AND STREAM CONDITION ASSESSMENT

DETERMINATION OF STREAM CREDITS

The assessment of proposed stream mitigation credits utilizes the 2013 CESWG Stream SOP. Two types of stream restoration are proposed at Lake Creek Mitigation Bank (i.e., buffer re-establishment and preservation). The restoration type and linear footage for proposed credited reaches are outlined below in **Table 2**.

According to the Stream SOP, buffer re-establishment credits are achieved through manipulation of the chemical characteristics of the site with the goal of returning natural/historic functions to an aquatic resource, and preservation credits are awarded for preserving the functions of high-quality streams. Enhancement credits are achieved through manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s) but may not result in a gain in aquatic resource area (e.g., buffer work). Adjustment factors were added for heavy buffer planting for 100 feet each side of the stream (0.5), and for medium to high quality wetlands (0.25) located within the stream buffer. Preservation credits are assigned at a rate of 0.1 credit per linear foot for high quality streams, which Lake Creek meets the definition of a high quality stream based on its reach condition index score of over 4.0, as outlined below and in the *Lake Creek Stream Mitigation Bank Stream Condition Assessment Report*. Wetland adjustment factors were also assigned for the preservation portion of Lake Creek at a rate of 0.25 credit per linear foot.

Table 2. Detailed Stream Credit Determination

Stream Reach	Length (lf)	Existing Reach Condition Index	Credit Type	Credit / lf	Wetland AF	Total Credit / lf	Reach Credit
TR-1 to TR-5	2,733.4	3.80	Enhancement	0.5	0.25	0.75	2,050.05
TR-6 to TR-13	5,370.3	4.57	Preservation	0.1	0.25	0.35	1,879.61
Total lf	**8,103.7**				**Total Credit**		**3,929.66**

lf - Linear Feet

AF - Adjustment Factors

LAKE CREEK MITIGATION BANK

STREAM CONDITION ASSESSMENT REPORT

SWG-2018-00326

MONTGOMERY COUNTY, TEXAS

APRIL 2020

PREPARED BY:

DELTA LAND SERVICES, LLC
1090 CINCLARE DRIVE
PORT ALLEN, LOUISIANA 70767

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List of Appendices

1.0 INTRODUCTION

The following report summarizes an on-site Stream Condition Assessment conducted along an approximate 6,722 linear foot section of Lake Creek within the Lake Creek Mitigation Bank (LCMB), in Montgomery County, Texas (Figure 1). LCMB is a proposed mitigation bank in early stages of development and Lake creek was identified to receive restoration work to enhance the chemical, biological, and physical elements of the stream.

Delta Land Services, LLC (DLS) field personnel collected data to determine the Reach Condition Index (RCI) values for the variables associated with the Level 1 Stream Condition Assessment Procedure (SCA). The SCA provides a mechanism that defines stream condition as quantifiable for comparative purposes. Within this framework, stream conditions are described as indices which can be used to quantify overall stream quality for restoration purposes. This report describes the method and results of the SCA conducted for baseline conditions of Lake Creek within LCMB.

2.0 METHODS

2.1 Stream Condition Assessment

The SCA uses four variables to evaluate the condition of streams within the Galveston District of the USACE (SWG). These four variables are averaged to calculate the RCI for each assessed stream reach (Figure 2). To determine the RCI, each transect was traversed to assess conditions occurring within each stretch. Variables that can be assessed in the field were recorded along with photos taken from the middle of each transect. The aquatic use variable was evaluated in the office using the latest TCEQ 305b assessments for aquatic life use (TCEQ 2019).

The variables for each RCI ranges from 1.0 to 5.0. For each variable below, a score closer to five (5.0) indicates a greater stream condition than a score near one (1.0). Once a score is applied for each variable, the corresponding RCI is determined by averaging the four variables.

The four stream variables are:

1. Channel Condition Variable – Assesses the cross-section of stream and prevailing condition.
2. Riparian Buffer Variable – Asses both banks' 100-foot riparian areas along the entire transect
3. Aquatic Life Use – Assesses the aquatic life use category designated by the TCEQ.
4. Channel Alteration Variable – Assesses the presence of stream alterations such as stream crossings, riprap, concrete, gabions, concrete blocks, straightening of channel, channelization, embankments, spoil piles, and constrictions.

Data was first analyzed in the office. The following desktop data was reviewed in the office to gather information about Lake Creek:

- Texas Commission of Environmental Quality (TCEQ) 2018 Water Quality Report;
- Federal Emergency Management Agency (FEMA) flood hazard maps;
- U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) maps; and
- Google Earth aerial imagery.

Thirteen transects of 350 feet in length were spaced along Lake at 200-foot intervals in accordance with the Level 1 SCA procedures (USACE 2013). A Trimble T10 was utilized to evaluate the stream condition within each transect. Photos of each transect were collected viewing upstream and downstream of the transect midpoint. ArcGIS 10.7 was utilized to evaluate each transects buffer and derive percentages for each cover type.

3.0 RESULTS

Delta Land Services evaluated the stream on April 2, 2020. The SCA data is presented for each transect in the attached Level 1 data form. The summary table below provides an overview of the SCA RCIs for each transect along Lake Creek with LCMB. The two types of restoration activities proposed on Lake creek are labeled within the table.

Table 1. Transect RCI scores

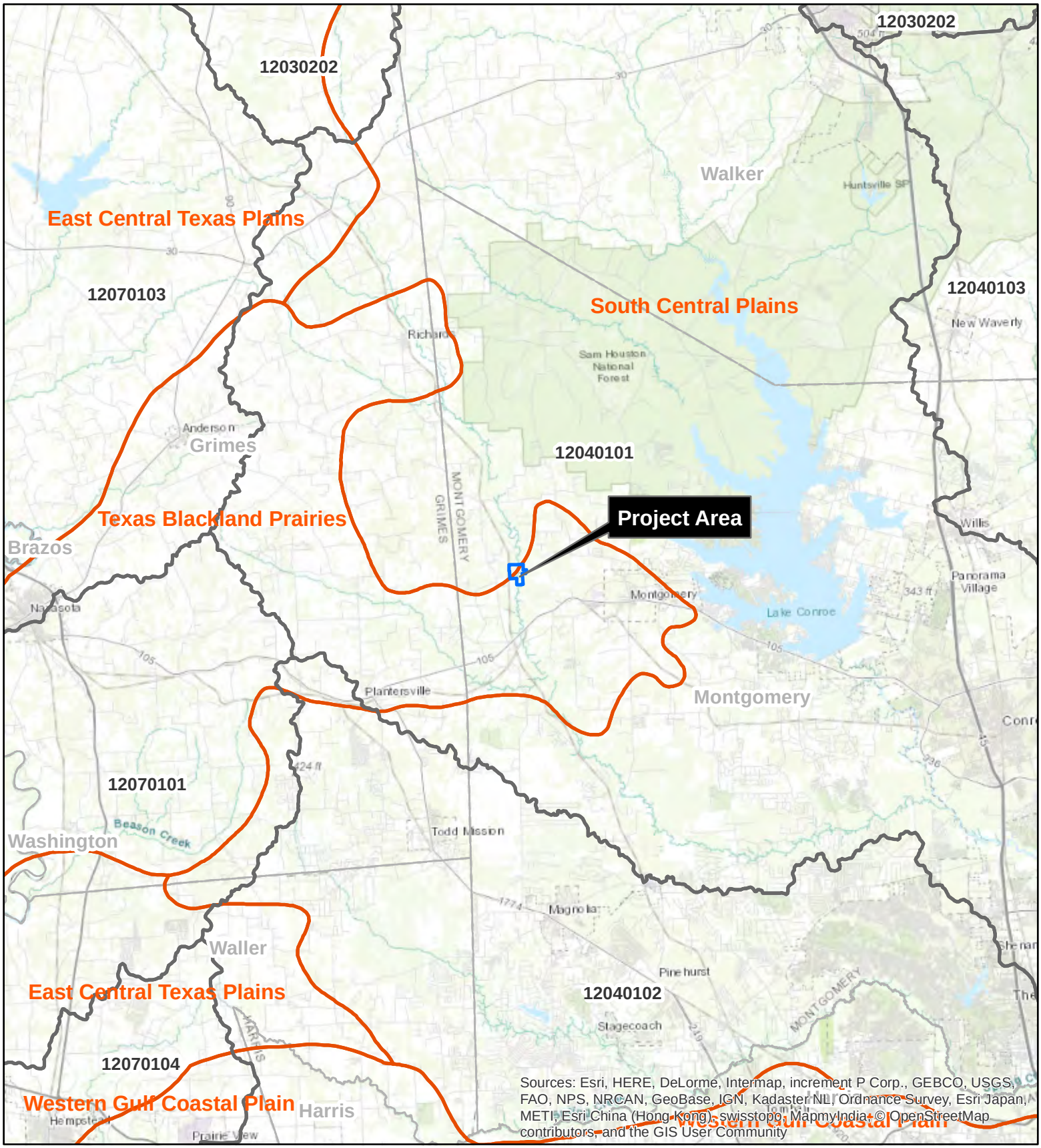
Transect	Proposed Buffer Restoration Type	Channel Condition Score	Riparian Buffer Score	Aquatic Use Score	Channel Alteration Score	Reach Condition Index
TR-1	Re-establishment	3.0	2.0	4.0	5.0	3.5
TR-2	Re-establishment	4.0	2.0	4.0	4.0	3.5
TR-3	Re-establishment	5.0	2.0	4.0	5.0	4.0
TR-4	Re-establishment	5.0	2.0	4.0	5.0	4.0
TR-5	Re-establishment	5.0	2.0	4.0	5.0	4.0
Subtotal	**Re-establishment**	**4.4**	**2.0**	**4.0**	**4.8**	**3.8**
TR-6	Preservation	5.0	4.5	4.0	5.0	4.63
TR-7	Preservation	5.0	4.56	4.0	5.0	4.64
TR-8	Preservation	5.0	4.52	4.0	5.0	4.63
TR-9	Preservation	5.0	4.52	4.0	5.0	4.63
TR-10	Preservation	5.0	4.52	4.0	5.0	4.63
TR-11	Preservation	4.0	4.55	4.0	4.0	4.14
TR-12	Preservation	5.0	4.54	4.0	5.0	4.63
TR-13	Preservation	5.0	4.59	4.0	5.0	4.65
Subtotal	**Preservation**	**4.86**	**4.54**	**4**	**4.86**	**4.57**
Overall Average		**4.69**	**3.56**	**4**	**4.85**	**4.28**

4.0 CITATIONS

Texas Commission on Environmental Quality. 2019. *2018 Texas Integrated Report – Assessment Results for Basin 10 – San Jacinto river Basin.* Accessed April 1, 2020. Available at https://www.tceq.texas.gov/assets/public/waterquality/swqm/assess/18txir/2018_Basin10.pdf.

U.S. Army Corps of Engineers (2013) *Level 1 SWG Stream Condition Assessment Operating Procedure*. U.S. Army Corps of Engineers, Galveston District, June 2013.

Appendix A. Figures



Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Legend

- Lake Creek MB (225.2 ac.)
- USGS 8 DIGIT HUC
- Ecoregion III

5 2.5 0 5
Miles

Lake Creek Property

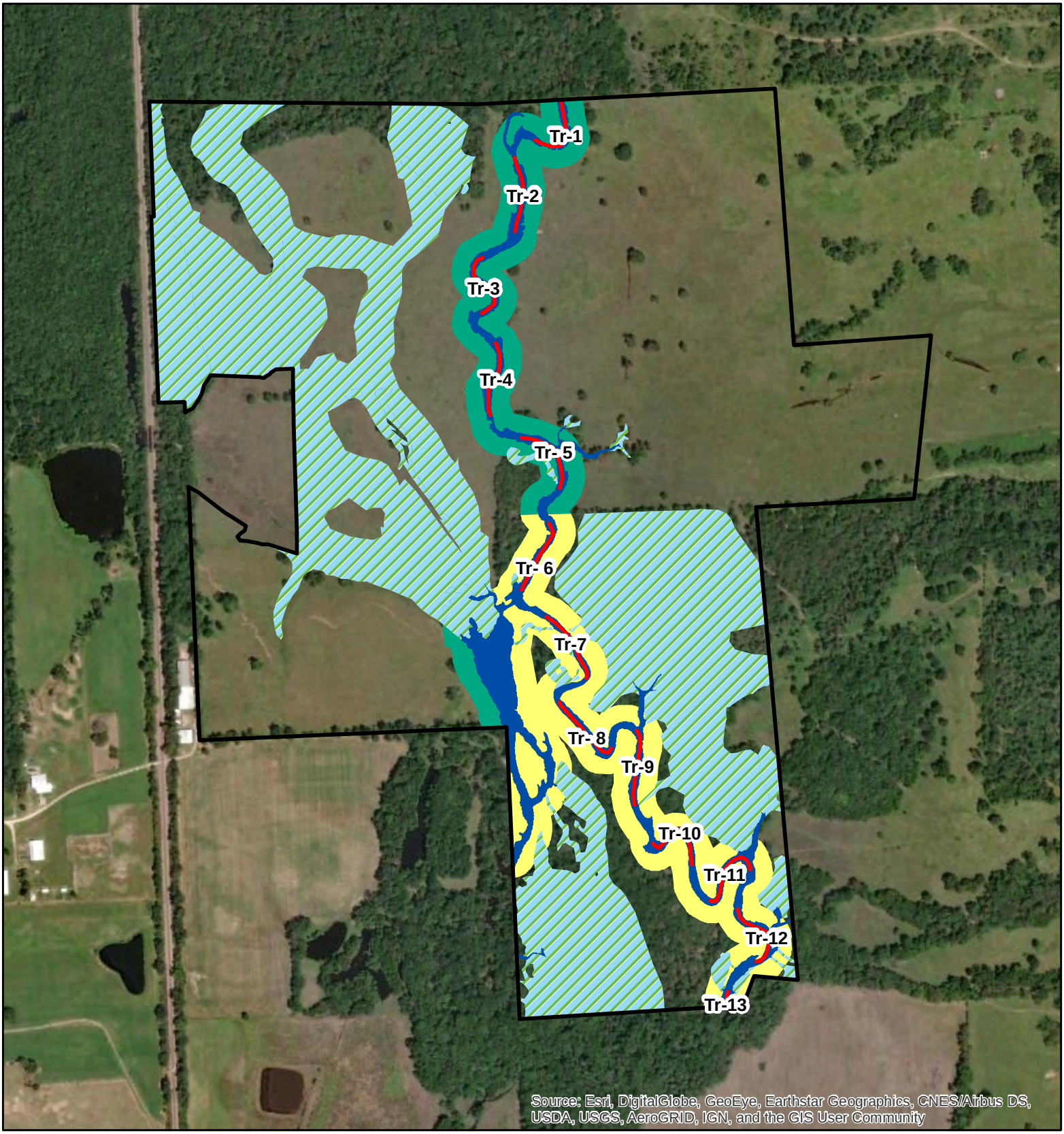
VICINITY MAP

Montgomery County, TX

Created :	TSC/ArcView10.4
Approved :	JMJ
Date :	01/11/2018
Map # :	F01_Vicinity.mxd

DELTA LAND SERVICES

FIGURE 1



Lake Creek (225.2 ac)
Wetlands
Transects
Buffer Re-establishment (10.8 ac) (2,733.4 ln ft)
Stream Buffer Preservation (16.9 ac) (5370.3 ln ft)
Other Waters of the U.S. (9.2 ac) (10,476 LF)

600 300 0 600
Feet

Proposed Lake Creek Mitigation Bank
STREAM CONDITION ASSESSMENT PROCEDURE
Montgomery County, TX

Created :	TSC/ArcView10
Approved :	CB
Date :	04/13/2020
Map # :	StreamCondition

DELTA LAND SERVICES

FIGURE 2

Appendix B. SCA Data Forms

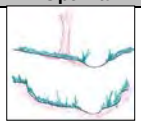
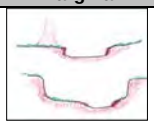
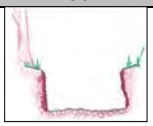
Stream Assessment Data Form for Level 1

U.S. Army Corps of Engineers Galveston District

File Number	Applicant	Stahler Stream Order	8 Digit HUC	Date	Transect #	Transect Description
SWG-2018-00326	Delta Land Services	4	12040101	April 2, 2020	1	TR-1

Name(s) of Evaluator(s)	Steam Name and Type
S. Ross	Lake Creek - Perennial Waterbody

1. Channel Condition: Assess the cross-section of the stream and prevailing condition (erosion, aggradation).

	Optimal	Suboptimal	Marginal	Poor	Severe	
Visual Channel Condition Parameter	 Channel shows very little incision or widening and little or no evidence of erosion or unprotected banks. Indicators of stability include greater than 80% vegetative cover on the banks, stable point bars and bankfull benches may be present, mid-channel and transverse bars are rare or transient. The stream has access to active floodplain or fully developed bankfull benches. No bulkheading or riprap may be present.	 Channel is slightly incised and contains a few areas of active erosion. Indicators of instability include vegetative cover or natural rock protection only present along 60-80% of the Transect, point bars and bankfull benches are likely present and transient sediment is present along 10-40% of the stream bottom. The stream has access to bankfull benches or developed floodplains along portions of the reach. Channel may show evidence of past channel alteration, but should be exhibiting notable recovery of a natural channel. Bulkhead and riprap are limited to 1-25% of the Transect.	 Channel is incised or has had its course widened. Indicators of instability include the presence of erosional scars on 40-60% of the Transect, vegetative cover or natural rock only found on 40-60% of the Transect, vertical or undercut banks, or nickpoints associated with headcuts may be present and portions of the channel may be widening while other portions of the channel are narrowing, and transient sediments are found in 40-60% of the natural stream bed or bottom. The stream does not have access to the active floodplain. Bulkheading or riprap is found along 25-50% of the Transect.	 Channel is over-widened or incised with vertically or laterally unstable banks. Visual indicators of over-widening and incision include near vertical banks with shallow root depths, erosional scars present along 60-80% of the Transect, vegetative cover or natural rock is limited to 20-40% of the Transect, substantial sediment deposition of uniformed-size material is present along 60-80% of the Transect and point bars and bankfull benches are absent. The stream does not have access to an active floodplain. Bulkheading and riprap are present along 50-80% of the Transect.	 Channel is deeply incised or excavated with vertical or lateral instability in the stream bank. Indicators of instability include the streambed elevation located below the rooting depth, both banks are vertical or undercut, vegetative surface protection or natural rock is only found along 20% or less of the Transect, the bank is sloughing and erosional scars or raw banks present on 80-100% of the Transect and 80% or more of the natural streambed is covered by substantial sediment resulting in threaded channels. The stream does not have access to an active floodplain.	**CV**
Score	**5**	**4**	**3**	**2**	**1**	**3.0**

Notes: Evidence of cattle entry along transect.

2. RIPARIAN BUFFERS: Assess both banks' 100-foot riparian areas along the entire Transect.

	Optimal	Suboptimal		Marginal	Poor	Severe
Riparian Buffers	Native woody species represent greater than 60% of the coverage and wetlands are present.	Native woody community species represent greater than 60% coverage with *NO* wetlands present within the buffer **OR** native woody community species represent 30-60% coverage with wetlands present. No maintenance or grazing activities.	Native woody community species represent between 30-60% coverage with *NO* wetlands present. No maintenance or grazing activities.	Native woody community represents less than 30% coverage with no maintenance or grazing activities.	The buffer is dominated by one or more of the following: lawns, mowed or maintained right-of-way, no-till cropland, actively grazed pasture, sparsely vegetated non-maintained area, recently seeded and stabilized or other comparable condition.	The area is dominated by impervious surfaces, mine spoil lands, denuded surfaces, conventional tillage row crops, active feed lots or comparable conditions.
Condition Scores	**5**	**High = 4.5**	**Low = 4**	**3**	**2**	**1**

Notes: Cattle actively grazed in surrounding buffer area.

Right Bank	% Riparian Area>	**14%**	**86%**					**100%**			
	Score >	**2**	**2**								
									CI= (Sum % RA * Scores*0.01)/2		
Left Bank	% Riparian Area>	**14%**	**86%**					**100%**	**Rt Bank CI >**	**2.00**	**BV**
	Score >	**2**	**2**						**Lt Bank CI >**	**2.00**	**2.00**

3. AQUATIC USE: The Transect is assessed based on the aquatic life use category score assigned to the stream segment by the TCEQ.

	Optimal	Suboptimal	Marginal	Poor	Severe	
AQUATIC USE	Aquatic Life Score of Exceptional.	Aquatic Life Score of High. Perennial streams that have not been assessed are also assumed to have an Aquatic Life Score of High.	Aquatic Life Score of Intermediate.	Aquatic Life Score of Limited. Intermittent Streams with Perennial Pools that have not been assessed are also assumed to have an Aquatic Life Score of Limited.	Aquatic Life Score of Minimal. Intermittent and ephemeral streams that have not been assessed are also assumed to have an Aquatic Life Score of Minimal.	**UV**
Score	**5**	**4**	**3**	**2**	**1**	**4.00**

Notes: TCEQ assessed condition for aquatic life use as Good for 2014. The 2018 assessment did not evaluate the stream segment therefore it was assumed to have a suboptimal condition.

Stream Impact Assessment Form Page 2

Project #	Applicant	Locality	Cowardin Class.	HUC	Date	Transect #	Transect Description
SWG-2018-00326	Delta Land Services	Lake Creek MB		12040101	April 2, 2020	1	TR-1

4. CHANNEL ALTERATION: Stream crossings, riprap, concrete, gabions, or concrete blocks, straightening of channel, channelization, embankments, spoil piles, constrictions, livestock

	Optimal	Suboptimal	Marginal	Poor	Severe	
Channel Alteration	Channelization, dredging, alteration or hardening absent. Stream has unaltered pattern or has normalized. No dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures within the Transect.	Less than 30% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Evidence of past alteration may be present, but stream pattern and stability have recovered. Withdrawals, if present, have no observable affect on flow.	Between 30-60% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Evidence of past alteration may be present, but stream pattern and stability are beginning to recover. Withdrawals, if present, may have an observable affect on flow, but no observable affect on habitat or biota.	Between 60-90% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Evidence of past alteration is present, and stream pattern and stability are not recovering. Withdrawals, if present, may have an observable affect on both flow and habitat or biota.	Between 90-100% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Withdrawals, if present, are large enough to have severe loss of flow and cause little to no habitat or biota.	**AV**
SCORE	**5**	**4**	**3**	**2**	**1**	**5.00**

Notes: No evidence of alterations were observed in this transect.

REACH CONDITION INDEX and STREAM CONDITION UNITS FOR THIS REACH

THE CONDITION INDEX (CI) >>	**3.50**

INSERT PHOTOS:

Upstream

Downstream

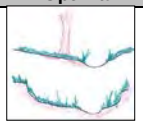
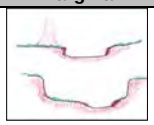
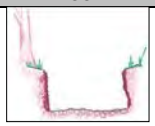
Stream Assessment Data Form for Level 1

U.S. Army Corps of Engineers Galveston District

File Number	Applicant	Stahler Stream Order	8 Digit HUC	Date	Transect #	Transect Description
SWG-2018-00326	Delta Land Services	4	12040101	April 2, 2020	2	TR-2

Name(s) of Evaluator(s)	Steam Name and Type
S. Ross	Lake Creek - Perennial Waterbody

1. Channel Condition: Assess the cross-section of the stream and prevailing condition (erosion, aggradation).

	Optimal	Suboptimal	Marginal	Poor	Severe	
Visual Channel Condition Parameter	 Channel shows very little incision or widening and little or no evidence of erosion or unprotected banks. Indicators of stability include greater than 80% vegetative cover on the banks, stable point bars and bankfull benches may be present, mid-channel and transverse bars are rare or transient. The stream has access to active floodplain or fully developed bankfull benches. No bulkheading or riprap may be present.	 Channel is slightly incised and contains a few areas of active erosion. Indicators of instability include vegetative cover or natural rock protection only present along 60-80% of the Transect, point bars and bankfull benches are likely present and transient sediment is present along 10-40% of the stream bottom. The stream has access to bankfull benches or developed floodplains along portions of the reach. Channel may show evidence of past channel alteration, but should be exhibiting notable recovery of a natural channel. Bulkhead and riprap are limited to 1-25% of the Transect.	 Channel is incised or has had its course widened. Indicators of instability include the presence of erosional scars on 40-60% of the Transect, vegetative cover or natural rock only found on 40-60% of the Transect, vertical or undercut banks, or nickpoints associated with headcuts may be present and portions of the channel may be widening while other portions of the channel are narrowing, and transient sediments are found in 40-60% of the natural stream bed or bottom. The stream does not have access to the active floodplain. Bulkheading or riprap is found along 25-50% of the Transect.	 Channel is over-widened or incised with vertically or laterally unstable banks. Visual indicators of over-widening and incision include near vertical banks with shallow root depths, erosional scars present along 60-80% of the Transect, vegetative cover or natural rock is limited to 20-40% of the Transect, substantial sediment deposition of uniformed-size material is present along 60-80% of the Transect and point bars and bankfull benches are absent. The stream does not have access to an active floodplain. Bulkheading and riprap are present along 50-80% of the Transect.	 Channel is deeply incised or excavated with vertical or lateral instability in the stream bank. Indicators of instability include the streambed elevation located below the rooting depth, both banks are vertical or undercut, vegetative surface protection or natural rock is only found along 20% or less of the Transect, the bank is sloughing and erosional scars or raw banks present on 80-100% of the Transect and 80% or more of the natural streambed is covered by substantial sediment resulting in threaded channels. The stream does not have access to an active floodplain.	**CV**
Score	**5**	**4**	**3**	**2**	**1**	**4.0**

Notes: Low water crossing on southern portion of transect.

2. RIPARIAN BUFFERS: Assess both banks' 100-foot riparian areas along the entire Transect.

	Optimal	Suboptimal		Marginal	Poor	Severe
Riparian Buffers	Native woody species represent greater than 60% of the coverage and wetlands are present.	Native woody community species represent greater than 60% coverage with *NO* wetlands present within the buffer **OR** native woody community species represent 30-60% coverage with wetlands present. No maintenance or grazing activities.	Native woody community species represent between 30-60% coverage with *NO* wetlands present. No maintenance or grazing activities.	Native woody community represents less than 30% coverage with no maintenance or grazing activities.	The buffer is dominated by one or more of the following: lawns, mowed or maintained right-of-way, no-till cropland, actively grazed pasture, sparsely vegetated non-maintained area, recently seeded and stabilized or other comparable condition.	The area is dominated by impervious surfaces, mine spoil lands, denuded surfaces, conventional tillage row crops, active feed lots or comparable conditions.
Condition Scores	**5**	**High = 4.5**	**Low = 4**	**3**	**2**	**1**

Notes: Cattle actively grazed in surrounding buffer area.

Right Bank	% Riparian Area>	**48%**	**52%**					**100%**			
	Score >	**2**	**2**								
									CI= (Sum % RA * Scores*0.01)/2		
Left Bank	% Riparian Area>	**48%**	**52%**					**100%**	**Rt Bank CI >**	**2.00**	**BV**
	Score >	**2**	**2**						**Lt Bank CI >**	**2.00**	**2.00**

3. AQUATIC USE: The Transect is assessed based on the aquatic life use category score assigned to the stream segment by the TCEQ.

	Optimal	Suboptimal	Marginal	Poor	Severe	
AQUATIC USE	Aquatic Life Score of Exceptional.	Aquatic Life Score of High. Perennial streams that have not been assessed are also assumed to have an Aquatic Life Score of High.	Aquatic Life Score of Intermediate.	Aquatic Life Score of Limited. Intermittent Streams with Perennial Pools that have not been assessed are also assumed to have an Aquatic Life Score of Limited.	Aquatic Life Score of Minimal. Intermittent and ephemeral streams that have not been assessed are also assumed to have an Aquatic Life Score of Minimal.	**UV**
Score	**5**	**4**	**3**	**2**	**1**	**4.00**

Notes: TCEQ assessed condition for aquatic life use as Good for 2014. The 2018 assessment did not evaluate the stream segment therefore it was assumed to have a suboptimal condition.

Stream Impact Assessment Form Page 2

Project #	Applicant	Locality	Cowardin Class.	HUC	Date	Transect #	Transect Description
SWG-2018-00326	Delta Land Services	Lake Creek MB		12040101	April 2, 2020	2	TR-2

4. CHANNEL ALTERATION: Stream crossings, riprap, concrete, gabions, or concrete blocks, straightening of channel, channelization, embankments, spoil piles, constrictions, livestock

	Optimal	Suboptimal	Marginal	Poor	Severe	
Channel Alteration	Channelization, dredging, alteration or hardening absent. Stream has unaltered pattern or has normalized. No dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures within the Transect.	Less than 30% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Evidence of past alteration may be present, but stream pattern and stability have recovered. Withdrawals, if present, have no observable affect on flow.	Between 30-60% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Evidence of past alteration may be present, but stream pattern and stability are beginning to recover. Withdrawals, if present, may have an observable affect on flow, but no observable affect on habitat or biota.	Between 60-90% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Evidence of past alteration is present, and stream pattern and stability are not recovering. Withdrawals, if present, may have an observable affect on both flow and habitat or biota.	Between 90-100% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Withdrawals, if present, are large enough to have severe loss of flow and cause little to no habitat or biota.	**AV**
SCORE	**5**	**4**	**3**	**2**	**1**	**4.00**

Notes: A low water crossing is present within the stram transect.

REACH CONDITION INDEX and STREAM CONDITION UNITS FOR THIS REACH

THE CONDITION INDEX (CI) >>	**3.50**

INSERT PHOTOS:

Upstream

Downstream

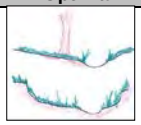
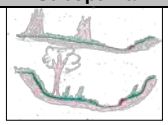
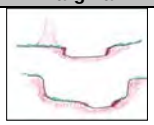
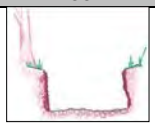
Stream Assessment Data Form for Level 1

U.S. Army Corps of Engineers Galveston District

File Number	Applicant	Stahler Stream Order	8 Digit HUC	Date	Transect #	Transect Description
SWG-2018-00326	Delta Land Services	4	12040101	April 2, 2020	3	TR-3

Name(s) of Evaluator(s)	Steam Name and Type
S. Ross	Lake Creek - Perennial Waterbody

1. Channel Condition: Assess the cross-section of the stream and prevailing condition (erosion, aggradation).

	Optimal	Suboptimal	Marginal	Poor	Severe	
						
Visual Channel Condition Parameter	Channel shows very little incision or widening and little or no evidence of erosion or unprotected banks. Indicators of stability include greater than 80% vegetative cover on the banks, stable point bars and bankfull benches may be present, mid-channel and transverse bars are rare or transient. The stream has access to active floodplain or fully developed bankfull benches. No bulkheading or riprap may be present.	Channel is slightly incised and contains a few areas of active erosion. Indicators of instability include vegetative cover or natural rock protection only present along 60-80% of the Transect, point bars and bankfull benches are likely present and transient sediment is present along 10-40% of the stream bottom. The stream has access to bankfull benches or developed floodplains along portions of the reach. Channel may show evidence of past channel alteration, but should be exhibiting notable recovery of a natural channel. Bulkhead and riprap are limited to 1-25% of the Transect.	Channel is incised or has had its course widened. Indicators of instability include the presence of erosional scars on 40-60% of the Transect, vegetative cover or natural rock only found on 40-60% of the Transect, vertical or undercut banks, or nickpoints associated with headcuts may be present and portions of the channel may be widening while other portions of the channel are narrowing, and transient sediments are found in 40-60% of the natural stream bed or bottom. The stream does not have access to the active floodplain. Bulkheading or riprap is found along 25-50% of the Transect.	Channel is over-widened or incised with vertically or laterally unstable banks. Visual indicators of over-widening and incision include near vertical banks with shallow root depths, erosional scars present along 60-80% of the Transect, vegetative cover or natural rock is limited to 20-40% of the Transect, substantial sediment deposition of uniformed-size material is present along 60-80% of the Transect and point bars and bankfull benches are absent. The stream does not have access to an active floodplain. Bulkheading and riprap are present along 50-80% of the Transect.	Channel is deeply incised or excavated with vertical or lateral instability in the stream bank. Indicators of instability include the streambed elevation located below the rooting depth, both banks are vertical or undercut, vegetative surface protection or natural rock is only found along 20% or less of the Transect, the bank is sloughing and erosional scars or raw banks present on 80-100% of the Transect and 80% or more of the natural streambed is covered by substantial sediment resulting in threaded channels. The stream does not have access to an active floodplain.	**CV**
Score	**5**	**4**	**3**	**2**	**1**	**5.0**

Notes: Channel is stable with access to the floodplain.

2. RIPARIAN BUFFERS: Assess both banks' 100-foot riparian areas along the entire Transect.

	Optimal	Suboptimal		Marginal	Poor	Severe
Riparian Buffers	Native woody species represent greater than 60% of the coverage and wetlands are present.	Native woody community species represent greater than 60% coverage with *NO* wetlands present within the buffer **OR** native woody community species represent 30-60% coverage with wetlands present. No maintenance or grazing activities.	Native woody community species represent between 30-60% coverage with *NO* wetlands present. No maintenance or grazing activities.	Native woody community represents less than 30% coverage with no maintenance or grazing activities.	The buffer is dominated by one or more of the following: lawns, mowed or maintained right-of-way, no-till cropland, actively grazed pasture, sparsely vegetated non-maintained area, recently seeded and stabilized or other comparable condition.	The area is dominated by impervious surfaces, mine spoil lands, denuded surfaces, conventional tillage row crops, active feed lots or comparable conditions.
Condition Scores	**5**	**High = 4.5**	**Low = 4**	**3**	**2**	**1**

Notes: Cattle actively grazed in surrounding buffer area.

Right Bank	% Riparian Area>	**51%**	**49%**					**100%**			
	Score >	**2**	**2**								
									CI= (Sum % RA * Scores*0.01)/2		
Left Bank	% Riparian Area>	**51%**	**49%**					**100%**	**Rt Bank CI >**	**2.00**	**BV**
	Score >	**2**	**2**						**Lt Bank CI >**	**2.00**	**2.00**

3. AQUATIC USE: The Transect is assessed based on the aquatic life use category score assigned to the stream segment by the TCEQ.

	Optimal	Suboptimal	Marginal	Poor	Severe	
AQUATIC USE	Aquatic Life Score of Exceptional.	Aquatic Life Score of High. Perennial streams that have not been assessed are also assumed to have an Aquatic Life Score of High.	Aquatic Life Score of Intermediate.	Aquatic Life Score of Limited. Intermittent Streams with Perennial Pools that have not been assessed are also assumed to have an Aquatic Life Score of Limited.	Aquatic Life Score of Minimal. Intermittent and ephemeral streams that have not been assessed are also assumed to have an Aquatic Life Score of Minimal.	**UV**
Score	**5**	**4**	**3**	**2**	**1**	**4.00**

Notes: TCEQ assessed condition for aquatic life use as Good for 2014. The 2018 assessment did not evaluate the stream segment therefore it was assumed to have a suboptimal condition.

Stream Impact Assessment Form Page 2

Project #	Applicant	Locality	Cowardin Class.	HUC	Date	Transect #	Transect Description
SWG-2018-00326	Delta Land Services	Lake Creek MB		12040101	April 2, 2020	3	TR-3

4. CHANNEL ALTERATION: Stream crossings, riprap, concrete, gabions, or concrete blocks, straightening of channel, channelization, embankments, spoil piles, constrictions, livestock

	Optimal	Suboptimal	Marginal	Poor	Severe	
Channel Alteration	Channelization, dredging, alteration or hardening absent. Stream has unaltered pattern or has normalized. No dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures within the Transect.	Less than 30% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Evidence of past alteration may be present, but stream pattern and stability have recovered. Withdrawals, if present, have no observable affect on flow.	Between 30-60% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Evidence of past alteration may be present, but stream pattern and stability are beginning to recover. Withdrawals, if present, may have an observable affect on flow, but no observable affect on habitat or biota.	Between 60-90% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Evidence of past alteration is present, and stream pattern and stability are not recovering. Withdrawals, if present, may have an observable affect on both flow and habitat or biota.	Between 90-100% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Withdrawals, if present, are large enough to have severe loss of flow and cause little to no habitat or biota.	**AV**
SCORE	**5**	**4**	**3**	**2**	**1**	**5.00**

Notes: Channel alterations were not present within this transect.

REACH CONDITION INDEX and STREAM CONDITION UNITS FOR THIS REACH

THE CONDITION INDEX (CI) >>	**4.00**

INSERT PHOTOS:

Upstream

Downstream

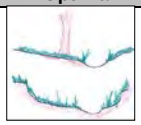
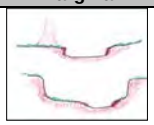
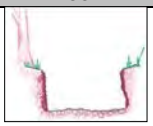
Stream Assessment Data Form for Level 1

U.S. Army Corps of Engineers Galveston District

File Number	Applicant	Stahler Stream Order	8 Digit HUC	Date	Transect #	Transect Description
SWG-2018-00326	Delta Land Services	4	12040101	April 2, 2020	4	TR-4

Name(s) of Evaluator(s)	Steam Name and Type
S. Ross	Lake Creek - Perennial Waterbody

1. Channel Condition: Assess the cross-section of the stream and prevailing condition (erosion, aggradation).

	Optimal	Suboptimal	Marginal	Poor	Severe	
						
Visual Channel Condition Parameter	Channel shows very little incision or widening and little or no evidence of erosion or unprotected banks. Indicators of stability include greater than 80% vegetative cover on the banks, stable point bars and bankfull benches may be present, mid-channel and transverse bars are rare or transient. The stream has access to active floodplain or fully developed bankfull benches. No bulkheading or riprap may be present.	Channel is slightly incised and contains a few areas of active erosion. Indicators of instability include vegetative cover or natural rock protection only present along 60-80% of the Transect, point bars and bankfull benches are likely present and transient sediment is present along 10-40% of the stream bottom. The stream has access to bankfull benches or developed floodplains along portions of the reach. Channel may show evidence of past channel alteration, but should be exhibiting notable recovery of a natural channel. Bulkhead and riprap are limited to 1-25% of the Transect.	Channel is incised or has had its course widened. Indicators of instability include the presence of erosional scars on 40-60% of the Transect, vegetative cover or natural rock only found on 40-60% of the Transect, vertical or undercut banks, or nickpoints associated with headcuts may be present and portions of the channel may be widening while other portions of the channel are narrowing, and transient sediments are found in 40-60% of the natural stream bed or bottom. The stream does not have access to the active floodplain. Bulkheading or riprap is found along 25-50% of the Transect.	Channel is over-widened or incised with vertically or laterally unstable banks. Visual indicators of over-widening and incision include near vertical banks with shallow root depths, erosional scars present along 60-80% of the Transect, vegetative cover or natural rock is limited to 20-40% of the Transect, substantial sediment deposition of uniformed-size material is present along 60-80% of the Transect and point bars and bankfull benches are absent. The stream does not have access to an active floodplain. Bulkheading and riprap are present along 50-80% of the Transect.	Channel is deeply incised or excavated with vertical or lateral instability in the stream bank. Indicators of instability include the streambed elevation located below the rooting depth, both banks are vertical or undercut, vegetative surface protection or natural rock is only found along 20% or less of the Transect, the bank is sloughing and erosional scars or raw banks present on 80-100% of the Transect and 80% or more of the natural streambed is covered by substantial sediment resulting in threaded channels. The stream does not have access to an active floodplain.	**CV**
Score	**5**	**4**	**3**	**2**	**1**	**5.0**

Notes: Channel is stable with access to the floodplain.

2. RIPARIAN BUFFERS: Assess both banks' 100-foot riparian areas along the entire Transect.

	Optimal	Suboptimal		Marginal	Poor	Severe
Riparian Buffers	Native woody species represent greater than 60% of the coverage and wetlands are present.	Native woody community species represent greater than 60% coverage with *NO* wetlands present within the buffer **OR** native woody community species represent 30-60% coverage with wetlands present. No maintenance or grazing activities.	Native woody community species represent between 30-60% coverage with *NO* wetlands present. No maintenance or grazing activities.	Native woody community represents less than 30% coverage with no maintenance or grazing activities.	The buffer is dominated by one or more of the following: lawns, mowed or maintained right-of-way, no-till cropland, actively grazed pasture, sparsely vegetated non-maintained area, recently seeded and stabilized or other comparable condition.	The area is dominated by impervious surfaces, mine spoil lands, denuded surfaces, conventional tillage row crops, active feed lots or comparable conditions.
Condition Scores	**5**	**High = 4.5**	**Low = 4**	**3**	**2**	**1**

Notes: Cattle actively grazed in surrounding buffer area.

Right Bank	% Riparian Area>	**49%**	**51%**					**100%**			
	Score >	**2**	**2**								
									CI= (Sum % RA * Scores*0.01)/2		
Left Bank	% Riparian Area>	**49%**	**51%**					**100%**	**Rt Bank CI >**	**2.00**	**BV**
	Score >	**2**	**2**						**Lt Bank CI >**	**2.00**	**2.00**

3. AQUATIC USE: The Transect is assessed based on the aquatic life use category score assigned to the stream segment by the TCEQ.

	Optimal	Suboptimal	Marginal	Poor	Severe	
AQUATIC USE	Aquatic Life Score of Exceptional.	Aquatic Life Score of High. Perennial streams that have not been assessed are also assumed to have an Aquatic Life Score of High.	Aquatic Life Score of Intermediate.	Aquatic Life Score of Limited. Intermittent Streams with Perennial Pools that have not been assessed are also assumed to have an Aquatic Life Score of Limited.	Aquatic Life Score of Minimal. Intermittent and ephemeral streams that have not been assessed are also assumed to have an Aquatic Life Score of Minimal.	**UV**
Score	**5**	**4**	**3**	**2**	**1**	**4.00**

Notes: TCEQ assessed condition for aquatic life use as Good for 2014. The 2018 assessment did not evaluate the stream segment therefore it was assumed to have a suboptimal condition.

Stream Impact Assessment Form Page 2

Project #	Applicant	Locality	Cowardin Class.	HUC	Date	Transect #	Transect Description
SWG-2018-00326	Delta Land Services	Lake Creek MB		12040101	April 2, 2020	4	TR-4

4. CHANNEL ALTERATION: Stream crossings, riprap, concrete, gabions, or concrete blocks, straightening of channel, channelization, embankments, spoil piles, constrictions, livestock

	Optimal	Suboptimal	Marginal	Poor	Severe	
Channel Alteration	Channelization, dredging, alteration or hardening absent. Stream has unaltered pattern or has normalized. No dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures within the Transect.	Less than 30% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Evidence of past alteration may be present, but stream pattern and stability have recovered. Withdrawals, if present, have no observable affect on flow.	Between 30-60% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Evidence of past alteration may be present, but stream pattern and stability are beginning to recover. Withdrawals, if present, may have an observable affect on flow, but no observable affect on habitat or biota.	Between 60-90% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Evidence of past alteration is present, and stream pattern and stability are not recovering. Withdrawals, if present, may have an observable affect on both flow and habitat or biota.	Between 90-100% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Withdrawals, if present, are large enough to have severe loss of flow and cause little to no habitat or biota.	**AV**
SCORE	**5**	**4**	**3**	**2**	**1**	**5.00**

Notes: Channel alterations were not present within this transect.

REACH CONDITION INDEX and STREAM CONDITION UNITS FOR THIS REACH

THE CONDITION INDEX (CI) >>	**4.00**

INSERT PHOTOS:

Upstream

Downstream

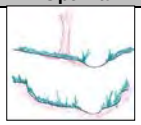
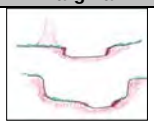
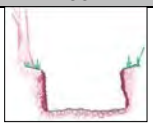
Stream Assessment Data Form for Level 1

U.S. Army Corps of Engineers Galveston District

File Number	Applicant	Stahler Stream Order	8 Digit HUC	Date	Transect #	Transect Description
SWG-2018-00326	Delta Land Services	4	12040101	April 2, 2020	5	TR-5

Name(s) of Evaluator(s)	Steam Name and Type
S. Ross	Lake Creek - Perennial Waterbody

1. Channel Condition: Assess the cross-section of the stream and prevailing condition (erosion, aggradation).

	Optimal	Suboptimal	Marginal	Poor	Severe	
Visual Channel Condition Parameter	 Channel shows very little incision or widening and little or no evidence of erosion or unprotected banks. Indicators of stability include greater than 80% vegetative cover on the banks, stable point bars and bankfull benches may be present, mid-channel and transverse bars are rare or transient. The stream has access to active floodplain or fully developed bankfull benches. No bulkheading or riprap may be present.	 Channel is slightly incised and contains a few areas of active erosion. Indicators of instability include vegetative cover or natural rock protection only present along 60-80% of the Transect, point bars and bankfull benches are likely present and transient sediment is present along 10-40% of the stream bottom. The stream has access to bankfull benches or developed floodplains along portions of the reach. Channel may show evidence of past channel alteration, but should be exhibiting notable recovery of a natural channel. Bulkhead and riprap are limited to 1-25% of the Transect.	 Channel is incised or has had its course widened. Indicators of instability include the presence of erosional scars on 40-60% of the Transect, vegetative cover or natural rock only found on 40-60% of the Transect, vertical or undercut banks, or nickpoints associated with headcuts may be present and portions of the channel may be widening while other portions of the channel are narrowing, and transient sediments are found in 40-60% of the natural stream bed or bottom. The stream does not have access to the active floodplain. Bulkheading or riprap is found along 25-50% of the Transect.	 Channel is over-widened or incised with vertically or laterally unstable banks. Visual indicators of over-widening and incision include near vertical banks with shallow root depths, erosional scars present along 60-80% of the Transect, vegetative cover or natural rock is limited to 20-40% of the Transect, substantial sediment deposition of uniformed-size material is present along 60-80% of the Transect and point bars and bankfull benches are absent. The stream does not have access to an active floodplain. Bulkheading and riprap are present along 50-80% of the Transect.	 Channel is deeply incised or excavated with vertical or lateral instability in the stream bank. Indicators of instability include the streambed elevation located below the rooting depth, both banks are vertical or undercut, vegetative surface protection or natural rock is only found along 20% or less of the Transect, the bank is sloughing and erosional scars or raw banks present on 80-100% of the Transect and 80% or more of the natural streambed is covered by substantial sediment resulting in threaded channels. The stream does not have access to an active floodplain.	**CV**
Score	**5**	**4**	**3**	**2**	**1**	**5.0**

Notes: Channel is stable with access to the floodplain.

2. RIPARIAN BUFFERS: Assess both banks' 100-foot riparian areas along the entire Transect.

	Optimal	Suboptimal		Marginal	Poor	Severe
Riparian Buffers	Native woody species represent greater than 60% of the coverage and wetlands are present.	Native woody community species represent greater than 60% coverage with *NO* wetlands present within the buffer **OR** native woody community species represent 30-60% coverage with wetlands present. No maintenance or grazing activities.	Native woody community species represent between 30-60% coverage with *NO* wetlands present. No maintenance or grazing activities.	Native woody community represents less than 30% coverage with no maintenance or grazing activities.	The buffer is dominated by one or more of the following: lawns, mowed or maintained right-of-way, no-till cropland, actively grazed pasture, sparsely vegetated non-maintained area, recently seeded and stabilized or other comparable condition.	The area is dominated by impervious surfaces, mine spoil lands, denuded surfaces, conventional tillage row crops, active feed lots or comparable conditions.
Condition Scores	**5**	**High = 4.5**	**Low = 4**	**3**	**2**	**1**

Notes: Cattle actively grazed in surrounding buffer area.

Right Bank	% Riparian Area>	**74%**	**26%**					**100%**			
	Score >	**2**	**2**								
									CI= (Sum % RA * Scores*0.01)/2		
Left Bank	% Riparian Area>	**74%**	**26%**					**100%**	**Rt Bank CI >**	**2.00**	**BV**
	Score >	**2**	**2**						**Lt Bank CI >**	**2.00**	**2.00**

3. AQUATIC USE: The Transect is assessed based on the aquatic life use category score assigned to the stream segment by the TCEQ.

	Optimal	Suboptimal	Marginal	Poor	Severe	
AQUATIC USE	Aquatic Life Score of Exceptional.	Aquatic Life Score of High. Perennial streams that have not been assessed are also assumed to have an Aquatic Life Score of High.	Aquatic Life Score of Intermediate.	Aquatic Life Score of Limited. Intermittent Streams with Perennial Pools that have not been assessed are also assumed to have an Aquatic Life Score of Limited.	Aquatic Life Score of Minimal. Intermittent and ephemeral streams that have not been assessed are also assumed to have an Aquatic Life Score of Minimal.	**UV**
Score	**5**	**4**	**3**	**2**	**1**	**4.00**

Notes: TCEQ assessed condition for aquatic life use as Good for 2014. The 2018 assessment did not evaluate the stream segment therefore it was assumed to have a suboptimal condition.

Stream Impact Assessment Form Page 2

Project #	Applicant	Locality	Cowardin Class.	HUC	Date	Transect #	Transect Description
SWG-2018-00326	Delta Land Services	Lake Creek MB		12040101	April 2, 2020	5	TR-5

4. CHANNEL ALTERATION: Stream crossings, riprap, concrete, gabions, or concrete blocks, straightening of channel, channelization, embankments, spoil piles, constrictions, livestock

	Optimal	Suboptimal	Marginal	Poor	Severe	
Channel Alteration	Channelization, dredging, alteration or hardening absent. Stream has unaltered pattern or has normalized. No dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures within the Transect.	Less than 30% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Evidence of past alteration may be present, but stream pattern and stability have recovered. Withdrawals, if present, have no observable affect on flow.	Between 30-60% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Evidence of past alteration may be present, but stream pattern and stability are beginning to recover. Withdrawals, if present, may have an observable affect on flow, but no observable affect on habitat or biota.	Between 60-90% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Evidence of past alteration is present, and stream pattern and stability are not recovering. Withdrawals, if present, may have an observable affect on both flow and habitat or biota.	Between 90-100% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Withdrawals, if present, are large enough to have severe loss of flow and cause little to no habitat or biota.	**AV**
SCORE	**5**	**4**	**3**	**2**	**1**	**5.00**

Notes: Channel alterations were not present within this transect.

REACH CONDITION INDEX and STREAM CONDITION UNITS FOR THIS REACH

THE CONDITION INDEX (CI) >>	**4.00**

INSERT PHOTOS:

Upstream

Downstream

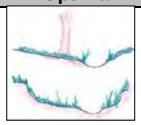
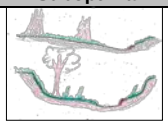
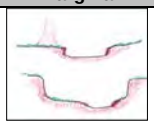
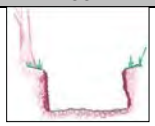
Stream Assessment Data Form for Level 1

U.S. Army Corps of Engineers Galveston District

File Number	Applicant	Stahler Stream Order	8 Digit HUC	Date	Transect #	Transect Description
SWG-2018-00326	Delta Land Services	4	12040101	April 2, 2020	6	TR-6

Name(s) of Evaluator(s)	Steam Name and Type
S. Ross	Lake Creek - Perennial Waterbody

1. Channel Condition: Assess the cross-section of the stream and prevailing condition (erosion, aggradation).

	Optimal	Suboptimal	Marginal	Poor	Severe	
						
Visual Channel Condition Parameter	Channel shows very little incision or widening and little or no evidence of erosion or unprotected banks. Indicators of stability include greater than 80% vegetative cover on the banks, stable point bars and bankfull benches may be present, mid-channel and transverse bars are rare or transient. The stream has access to active floodplain or fully developed bankfull benches. No bulkheading or riprap may be present.	Channel is slightly incised and contains a few areas of active erosion. Indicators of instability include vegetative cover or natural rock protection only present along 60-80% of the Transect, point bars and bankfull benches are likely present and transient sediment is present along 10-40% of the stream bottom. The stream has access to bankfull benches or developed floodplains along portions of the reach. Channel may show evidence of past channel alteration, but should be exhibiting notable recovery of a natural channel. Bulkhead and riprap are limited to 1-25% of the Transect.	Channel is incised or has had its course widened. Indicators of instability include the presence of erosional scars on 40-60% of the Transect, vegetative cover or natural rock only found on 40-60% of the Transect, vertical or undercut banks, or nickpoints associated with headcuts may be present and portions of the channel may be widening while other portions of the channel are narrowing, and transient sediments are found in 40-60% of the natural stream bed or bottom. The stream does not have access to the active floodplain. Bulkheading or riprap is found along 25-50% of the Transect.	Channel is over-widened or incised with vertically or laterally unstable banks. Visual indicators of over-widening and incision include near vertical banks with shallow root depths, erosional scars present along 60-80% of the Transect, vegetative cover or natural rock is limited to 20-40% of the Transect, substantial sediment deposition of uniformed-size material is present along 60-80% of the Transect and point bars and bankfull benches are absent. The stream does not have access to an active floodplain. Bulkheading and riprap are present along 50-80% of the Transect.	Channel is deeply incised or excavated with vertical or lateral instability in the stream bank. Indicators of instability include the streambed elevation located below the rooting depth, both banks are vertical or undercut, vegetative surface protection or natural rock is only found along 20% or less of the Transect, the bank is sloughing and erosional scars or raw banks present on 80-100% of the Transect and 80% or more of the natural streambed is covered by substantial sediment resulting in threaded channels. The stream does not have access to an active floodplain.	**CV**
Score	**5**	**4**	**3**	**2**	**1**	**5.0**

Notes: Channel is stable with access to the floodplain.

2. RIPARIAN BUFFERS: Assess both banks' 100-foot riparian areas along the entire Transect.

	Optimal	Suboptimal		Marginal	Poor	Severe
Riparian Buffers	Native woody species represent greater than 60% of the coverage and wetlands are present.	Native woody community species represent greater than 60% coverage with *NO* wetlands present within the buffer **OR** native woody community species represent 30-60% coverage with wetlands present. No maintenance or grazing activities.	Native woody community species represent between 30-60% coverage with *NO* wetlands present. No maintenance or grazing activities.	Native woody community represents less than 30% coverage with no maintenance or grazing activities.	The buffer is dominated by one or more of the following: lawns, mowed or maintained right-of-way, no-till cropland, actively grazed pasture, sparsely vegetated non-maintained area, recently seeded and stabilized or other comparable condition.	The area is dominated by impervious surfaces, mine spoil lands, denuded surfaces, conventional tillage row crops, active feed lots or comparable conditions.
Condition Scores	**5**	**High = 4.5**	**Low = 4**	**3**	**2**	**1**

Notes: Native woody riparian area with no evidence of cattle exists in the buffer area.

Right Bank	% Riparian Area>	**100%**						**100%**			
	Score >	**4.5**									
									CI= (Sum % RA * Scores*0.01)/2		
Left Bank	% Riparian Area>	**100%**						**100%**	**Rt Bank CI >**	**4.50**	**BV**
	Score >	**4.5**							**Lt Bank CI >**	**4.50**	**4.50**

3. AQUATIC USE: The Transect is assessed based on the aquatic life use category score assigned to the stream segment by the TCEQ.

	Optimal	Suboptimal	Marginal	Poor	Severe	
AQUATIC USE	Aquatic Life Score of Exceptional.	Aquatic Life Score of High. Perennial streams that have not been assessed are also assumed to have an Aquatic Life Score of High.	Aquatic Life Score of Intermediate.	Aquatic Life Score of Limited. Intermittent Streams with Perennial Pools that have not been assessed are also assumed to have an Aquatic Life Score of Limited.	Aquatic Life Score of Minimal. Intermittent and ephemeral streams that have not been assessed are also assumed to have an Aquatic Life Score of Minimal.	**UV**
Score	**5**	**4**	**3**	**2**	**1**	**4.00**

Notes: TCEQ assessed condition for aquatic life use as Good for 2014. The 2018 assessment did not evaluate the stream segment therefore it was assumed to have a suboptimal condition.

Stream Impact Assessment Form Page 2

Project #	Applicant	Locality	Cowardin Class.	HUC	Date	Transect #	Transect Description
SWG-2018-00326	Delta Land Services	Lake Creek MB		12040101	April 2, 2020	6	TR-6

4. CHANNEL ALTERATION: Stream crossings, riprap, concrete, gabions, or concrete blocks, straightening of channel, channelization, embankments, spoil piles, constrictions, livestock

	Optimal	Suboptimal	Marginal	Poor	Severe	
Channel Alteration	Channelization, dredging, alteration or hardening absent. Stream has unaltered pattern or has normalized. No dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures within the Transect.	Less than 30% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Evidence of past alteration may be present, but stream pattern and stability have recovered. Withdrawals, if present, have no observable affect on flow.	Between 30-60% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Evidence of past alteration may be present, but stream pattern and stability are beginning to recover. Withdrawals, if present, may have an observable affect on flow, but no observable affect on habitat or biota.	Between 60-90% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Evidence of past alteration is present, and stream pattern and stability are not recovering. Withdrawals, if present, may have an observable affect on both flow and habitat or biota.	Between 90-100% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Withdrawals, if present, are large enough to have severe loss of flow and cause little to no habitat or biota.	**AV**
SCORE	**5**	**4**	**3**	**2**	**1**	**5.00**

Notes: Channel alterations were not present within this transect.

REACH CONDITION INDEX and STREAM CONDITION UNITS FOR THIS REACH

THE CONDITION INDEX (CI) >>	**4.63**

INSERT PHOTOS:

Upstream

Downstream

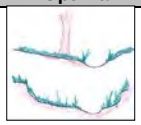
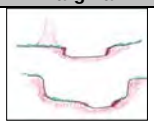
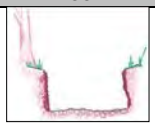
Stream Assessment Data Form for Level 1

U.S. Army Corps of Engineers Galveston District

File Number	Applicant	Stahler Stream Order	8 Digit HUC	Date	Transect #	Transect Description
SWG-2018-00326	Delta Land Services	4	12040101	April 2, 2020	7	TR-7

Name(s) of Evaluator(s)	Steam Name and Type
S. Ross	Lake Creek - Perennial Waterbody

1. Channel Condition: Assess the cross-section of the stream and prevailing condition (erosion, aggradation).

	Optimal	Suboptimal	Marginal	Poor	Severe	
Visual Channel Condition Parameter	 Channel shows very little incision or widening and little or no evidence of erosion or unprotected banks. Indicators of stability include greater than 80% vegetative cover on the banks, stable point bars and bankfull benches may be present, mid-channel and transverse bars are rare or transient. The stream has access to active floodplain or fully developed bankfull benches. No bulkheading or riprap may be present.	 Channel is slightly incised and contains a few areas of active erosion. Indicators of instability include vegetative cover or natural rock protection only present along 60-80% of the Transect, point bars and bankfull benches are likely present and transient sediment is present along 10-40% of the stream bottom. The stream has access to bankfull benches or developed floodplains along portions of the reach. Channel may show evidence of past channel alteration, but should be exhibiting notable recovery of a natural channel. Bulkhead and riprap are limited to 1-25% of the Transect.	 Channel is incised or has had its course widened. Indicators of instability include the presence of erosional scars on 40-60% of the Transect, vegetative cover or natural rock only found on 40-60% of the Transect, vertical or undercut banks, or nickpoints associated with headcuts may be present and portions of the channel may be widening while other portions of the channel are narrowing, and transient sediments are found in 40-60% of the natural stream bed or bottom. The stream does not have access to the active floodplain. Bulkheading or riprap is found along 25-50% of the Transect.	 Channel is over-widened or incised with vertically or laterally unstable banks. Visual indicators of over-widening and incision include near vertical banks with shallow root depths, erosional scars present along 60-80% of the Transect, vegetative cover or natural rock is limited to 20-40% of the Transect, substantial sediment deposition of uniformed-size material is present along 60-80% of the Transect and point bars and bankfull benches are absent. The stream does not have access to an active floodplain. Bulkheading and riprap are present along 50-80% of the Transect.	 Channel is deeply incised or excavated with vertical or lateral instability in the stream bank. Indicators of instability include the streambed elevation located below the rooting depth, both banks are vertical or undercut, vegetative surface protection or natural rock is only found along 20% or less of the Transect, the bank is sloughing and erosional scars or raw banks present on 80-100% of the Transect and 80% or more of the natural streambed is covered by substantial sediment resulting in threaded channels. The stream does not have access to an active floodplain.	**CV**
Score	**5**	**4**	**3**	**2**	**1**	**5.0**

Notes: Channel is stable with access to the floodplain.

2. RIPARIAN BUFFERS: Assess both banks' 100-foot riparian areas along the entire Transect.

	Optimal	Suboptimal		Marginal	Poor	Severe
Riparian Buffers	Native woody species represent greater than 60% of the coverage and wetlands are present.	Native woody community species represent greater than 60% coverage with *NO* wetlands present within the buffer **OR** native woody community species represent 30-60% coverage with wetlands present. No maintenance or grazing activities.	Native woody community species represent between 30-60% coverage with *NO* wetlands present. No maintenance or grazing activities.	Native woody community represents less than 30% coverage with no maintenance or grazing activities.	The buffer is dominated by one or more of the following: lawns, mowed or maintained right-of-way, no-till cropland, actively grazed pasture, sparsely vegetated non-maintained area, recently seeded and stabilized or other comparable condition.	The area is dominated by impervious surfaces, mine spoil lands, denuded surfaces, conventional tillage row crops, active feed lots or comparable conditions.
Condition Scores	**5**	**High = 4.5**	**Low = 4**	**3**	**2**	**1**

Notes: Native woody riparian area with no evidence of cattle exists in the buffer area. Wetlands are also present on either side of Lake Creek.

Right Bank	% Riparian Area>	**12%**	**88%**					**100%**			
	Score >	**5**	**4.5**								
									CI= (Sum % RA * Scores*0.01)/2		
Left Bank	% Riparian Area>	**11%**	**89%**					**100%**	**Rt Bank CI >**	**4.56**	**BV**
	Score >	**5**	**4.5**						**Lt Bank CI >**	**4.56**	**4.56**

3. AQUATIC USE: The Transect is assessed based on the aquatic life use category score assigned to the stream segment by the TCEQ.

	Optimal	Suboptimal	Marginal	Poor	Severe	
AQUATIC USE	Aquatic Life Score of Exceptional.	Aquatic Life Score of High. Perennial streams that have not been assessed are also assumed to have an Aquatic Life Score of High.	Aquatic Life Score of Intermediate.	Aquatic Life Score of Limited. Intermittent Streams with Perennial Pools that have not been assessed are also assumed to have an Aquatic Life Score of Limited.	Aquatic Life Score of Minimal. Intermittent and ephemeral streams that have not been assessed are also assumed to have an Aquatic Life Score of Minimal.	**UV**
Score	**5**	**4**	**3**	**2**	**1**	**4.00**

Notes: TCEQ assessed condition for aquatic life use as Good for 2014. The 2018 assessment did not evaluate the stream segment therefore it was assumed to have a suboptimal condition.

Stream Impact Assessment Form Page 2

Project #	Applicant	Locality	Cowardin Class.	HUC	Date	Transect #	Transect Description
SWG-2018-00326	Delta Land Services	Lake Creek MB		12040101	April 2, 2020	7	TR-7

4. CHANNEL ALTERATION: Stream crossings, riprap, concrete, gabions, or concrete blocks, straightening of channel, channelization, embankments, spoil piles, constrictions, livestock

	Optimal	Suboptimal	Marginal	Poor	Severe	
Channel Alteration	Channelization, dredging, alteration or hardening absent. Stream has unaltered pattern or has normalized. No dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures within the Transect.	Less than 30% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Evidence of past alteration may be present, but stream pattern and stability have recovered. Withdrawals, if present, have no observable affect on flow.	Between 30-60% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Evidence of past alteration may be present, but stream pattern and stability are beginning to recover. Withdrawals, if present, may have an observable affect on flow, but no observable affect on habitat or biota.	Between 60-90% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Evidence of past alteration is present, and stream pattern and stability are not recovering. Withdrawals, if present, may have an observable affect on both flow and habitat or biota.	Between 90-100% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Withdrawals, if present, are large enough to have severe loss of flow and cause little to no habitat or biota.	**AV**
SCORE	**5**	**4**	**3**	**2**	**1**	**5.00**

Notes: Channel alterations were not present within this transect.

REACH CONDITION INDEX and STREAM CONDITION UNITS FOR THIS REACH

THE CONDITION INDEX (CI) >>	**4.64**

INSERT PHOTOS:

Upstream

Downstream

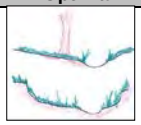
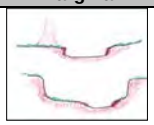
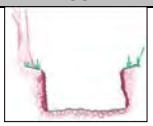
Stream Assessment Data Form for Level 1

U.S. Army Corps of Engineers Galveston District

File Number	Applicant	Stahler Stream Order	8 Digit HUC	Date	Transect #	Transect Description
SWG-2018-00326	Delta Land Services	4	12040101	April 2, 2020	8	TR-8

Name(s) of Evaluator(s)	Steam Name and Type
S. Ross	Lake Creek - Perennial Waterbody

1. Channel Condition: Assess the cross-section of the stream and prevailing condition (erosion, aggradation).

	Optimal	Suboptimal	Marginal	Poor	Severe	
Visual Channel Condition Parameter	 Channel shows very little incision or widening and little or no evidence of erosion or unprotected banks. Indicators of stability include greater than 80% vegetative cover on the banks, stable point bars and bankfull benches may be present, mid-channel and transverse bars are rare or transient. The stream has access to active floodplain or fully developed bankfull benches. No bulkheading or riprap may be present.	 Channel is slightly incised and contains a few areas of active erosion. Indicators of instability include vegetative cover or natural rock protection only present along 60-80% of the Transect, point bars and bankfull benches are likely present and transient sediment is present along 10-40% of the stream bottom. The stream has access to bankfull benches or developed floodplains along portions of the reach. Channel may show evidence of past channel alteration, but should be exhibiting notable recovery of a natural channel. Bulkhead and riprap are limited to 1-25% of the Transect.	 Channel is incised or has had its course widened. Indicators of instability include the presence of erosional scars on 40-60% of the Transect, vegetative cover or natural rock only found on 40-60% of the Transect, vertical or undercut banks, or nickpoints associated with headcuts may be present and portions of the channel may be widening while other portions of the channel are narrowing, and transient sediments are found in 40-60% of the natural stream bed or bottom. The stream does not have access to the active floodplain. Bulkheading or riprap is found along 25-50% of the Transect.	 Channel is over-widened or incised with vertically or laterally unstable banks. Visual indicators of over-widening and incision include near vertical banks with shallow root depths, erosional scars present along 60-80% of the Transect, vegetative cover or natural rock is limited to 20-40% of the Transect, substantial sediment deposition of uniformed-size material is present along 60-80% of the Transect and point bars and bankfull benches are absent. The stream does not have access to an active floodplain. Bulkheading and riprap are present along 50-80% of the Transect.	 Channel is deeply incised or excavated with vertical or lateral instability in the stream bank. Indicators of instability include the streambed elevation located below the rooting depth, both banks are vertical or undercut, vegetative surface protection or natural rock is only found along 20% or less of the Transect, the bank is sloughing and erosional scars or raw banks present on 80-100% of the Transect and 80% or more of the natural streambed is covered by substantial sediment resulting in threaded channels. The stream does not have access to an active floodplain.	**CV**
Score	**5**	**4**	**3**	**2**	**1**	**5.0**

Notes: Channel is stable with access to the floodplain.

2. RIPARIAN BUFFERS: Assess both banks' 100-foot riparian areas along the entire Transect.

	Optimal	Suboptimal		Marginal	Poor	Severe
Riparian Buffers	Native woody species represent greater than 60% of the coverage and wetlands are present.	Native woody community species represent greater than 60% coverage with *NO* wetlands present within the buffer **OR** native woody community species represent 30-60% coverage with wetlands present. No maintenance or grazing activities.	Native woody community species represent between 30-60% coverage with *NO* wetlands present. No maintenance or grazing activities.	Native woody community represents less than 30% coverage with no maintenance or grazing activities.	The buffer is dominated by one or more of the following: lawns, mowed or maintained right-of-way, no-till cropland, actively grazed pasture, sparsely vegetated non-maintained area, recently seeded and stabilized or other comparable condition.	The area is dominated by impervious surfaces, mine spoil lands, denuded surfaces, conventional tillage row crops, active feed lots or comparable conditions.
Condition Scores	**5**	**High = 4.5**	**Low = 4**	**3**	**2**	**1**

Notes: Native woody riparian area with no evidence of cattle exists in the buffer area.

Right Bank	% Riparian Area>	**100%**						**100%**			
	Score >	**4.5**									
									CI= (Sum % RA * Scores*0.01)/2		
Left Bank	% Riparian Area>	**95%**	**5%**					**100%**	**Rt Bank CI >**	**4.50**	**BV**
	Score >	**4.5**	**5**						**Lt Bank CI >**	**4.53**	**4.52**

3. AQUATIC USE: The Transect is assessed based on the aquatic life use category score assigned to the stream segment by the TCEQ.

	Optimal	Suboptimal	Marginal	Poor	Severe	
AQUATIC USE	Aquatic Life Score of Exceptional.	Aquatic Life Score of High. Perennial streams that have not been assessed are also assumed to have an Aquatic Life Score of High.	Aquatic Life Score of Intermediate.	Aquatic Life Score of Limited. Intermittent Streams with Perennial Pools that have not been assessed are also assumed to have an Aquatic Life Score of Limited.	Aquatic Life Score of Minimal. Intermittent and ephemeral streams that have not been assessed are also assumed to have an Aquatic Life Score of Minimal.	**UV**
Score	**5**	**4**	**3**	**2**	**1**	**4.00**

Notes: TCEQ assessed condition for aquatic life use as Good for 2014. The 2018 assessment did not evaluate the stream segment therefore it was assumed to have a suboptimal condition.

Stream Impact Assessment Form Page 2

Project #	Applicant	Locality	Cowardin Class.	HUC	Date	Transect #	Transect Description
SWG-2018-00326	Delta Land Services	Lake Creek MB		12040101	April 2, 2020	8	TR-8

4. CHANNEL ALTERATION: Stream crossings, riprap, concrete, gabions, or concrete blocks, straightening of channel, channelization, embankments, spoil piles, constrictions, livestock

	Optimal	Suboptimal	Marginal	Poor	Severe	
Channel Alteration	Channelization, dredging, alteration or hardening absent. Stream has unaltered pattern or has normalized. No dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures within the Transect.	Less than 30% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Evidence of past alteration may be present, but stream pattern and stability have recovered. Withdrawals, if present, have no observable affect on flow.	Between 30-60% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Evidence of past alteration may be present, but stream pattern and stability are beginning to recover. Withdrawals, if present, may have an observable affect on flow, but no observable affect on habitat or biota.	Between 60-90% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Evidence of past alteration is present, and stream pattern and stability are not recovering. Withdrawals, if present, may have an observable affect on both flow and habitat or biota.	Between 90-100% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Withdrawals, if present, are large enough to have severe loss of flow and cause little to no habitat or biota.	**AV**
SCORE	**5**	**4**	**3**	**2**	**1**	**5.00**

Notes: Channel alterations were not present within this transect.

REACH CONDITION INDEX and STREAM CONDITION UNITS FOR THIS REACH

THE CONDITION INDEX (CI) >>	**4.63**

INSERT PHOTOS:

Upstream

Downstream

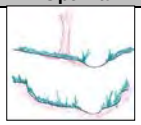
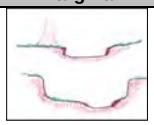
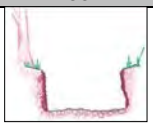
Stream Assessment Data Form for Level 1

U.S. Army Corps of Engineers Galveston District

File Number	Applicant	Stahler Stream Order	8 Digit HUC	Date	Transect #	Transect Description
SWG-2018-00326	Delta Land Services	44.63	12040101	April 2, 2020	9	TR-9

Name(s) of Evaluator(s)	Steam Name and Type
S. Ross	Lake Creek - Perennial Waterbody

1. Channel Condition: Assess the cross-section of the stream and prevailing condition (erosion, aggradation).

	Optimal	Suboptimal	Marginal	Poor	Severe	
Visual Channel Condition Parameter	 Channel shows very little incision or widening and little or no evidence of erosion or unprotected banks. Indicators of stability include greater than 80% vegetative cover on the banks, stable point bars and bankfull benches may be present, mid-channel and transverse bars are rare or transient. The stream has access to active floodplain or fully developed bankfull benches. No bulkheading or riprap may be present.	 Channel is slightly incised and contains a few areas of active erosion. Indicators of instability include vegetative cover or natural rock protection only present along 60-80% of the Transect, point bars and bankfull benches are likely present and transient sediment is present along 10-40% of the stream bottom. The stream has access to bankfull benches or developed floodplains along portions of the reach. Channel may show evidence of past channel alteration, but should be exhibiting notable recovery of a natural channel. Bulkhead and riprap are limited to 1-25% of the Transect.	 Channel is incised or has had its course widened. Indicators of instability include the presence of erosional scars on 40-60% of the Transect, vegetative cover or natural rock only found on 40-60% of the Transect, vertical or undercut banks, or nickpoints associated with headcuts may be present and portions of the channel may be widening while other portions of the channel are narrowing, and transient sediments are found in 40-60% of the natural stream bed or bottom. The stream does not have access to the active floodplain. Bulkheading or riprap is found along 25-50% of the Transect.	 Channel is over-widened or incised with vertically or laterally unstable banks. Visual indicators of over-widening and incision include near vertical banks with shallow root depths, erosional scars present along 60-80% of the Transect, vegetative cover or natural rock is limited to 20-40% of the Transect, substantial sediment deposition of uniformed-size material is present along 60-80% of the Transect and point bars and bankfull benches are absent. The stream does not have access to an active floodplain. Bulkheading and riprap are present along 50-80% of the Transect.	 Channel is deeply incised or excavated with vertical or lateral instability in the stream bank. Indicators of instability include the streambed elevation located below the rooting depth, both banks are vertical or undercut, vegetative surface protection or natural rock is only found along 20% or less of the Transect, the bank is sloughing and erosional scars or raw banks present on 80-100% of the Transect and 80% or more of the natural streambed is covered by substantial sediment resulting in threaded channels. The stream does not have access to an active floodplain.	**CV**
Score	**5**	**4**	**3**	**2**	**1**	**5.0**

Notes: Channel is stable with access to the floodplain.

2. RIPARIAN BUFFERS: Assess both banks' 100-foot riparian areas along the entire Transect.

	Optimal	Suboptimal		Marginal	Poor	Severe
Riparian Buffers	Native woody species represent greater than 60% of the coverage and wetlands are present.	Native woody community species represent greater than 60% coverage with *NO* wetlands present within the buffer **OR** native woody community species represent 30-60% coverage with wetlands present. No maintenance or grazing activities.	Native woody community species represent between 30-60% coverage with *NO* wetlands present. No maintenance or grazing activities.	Native woody community represents less than 30% coverage with no maintenance or grazing activities.	The buffer is dominated by one or more of the following: lawns, mowed or maintained right-of-way, no-till cropland, actively grazed pasture, sparsely vegetated non-maintained area, recently seeded and stabilized or other comparable condition.	The area is dominated by impervious surfaces, mine spoil lands, denuded surfaces, conventional tillage row crops, active feed lots or comparable conditions.
Condition Scores	**5**	**High = 4.5**	**Low = 4**	**3**	**2**	**1**

Notes: Native woody riparian area with no evidence of cattle exists in the buffer area. Wetlands are present on the left bank of Lake Creek.

Right Bank	% Riparian Area>	**100%**						**100%**			
	Score >	**4.5**									
									CI= (Sum % RA * Scores*0.01)/2		
Left Bank	% Riparian Area>	**5%**	**95%**					**100%**	**Rt Bank CI >**	**4.50**	**BV**
	Score >	**5**	**4.5**						**Lt Bank CI >**	**4.53**	**4.52**

3. AQUATIC USE: The Transect is assessed based on the aquatic life use category score assigned to the stream segment by the TCEQ.

	Optimal	Suboptimal	Marginal	Poor	Severe	
AQUATIC USE	Aquatic Life Score of Exceptional.	Aquatic Life Score of High. Perennial streams that have not been assessed are also assumed to have an Aquatic Life Score of High.	Aquatic Life Score of Intermediate.	Aquatic Life Score of Limited. Intermittent Streams with Perennial Pools that have not been assessed are also assumed to have an Aquatic Life Score of Limited.	Aquatic Life Score of Minimal. Intermittent and ephemeral streams that have not been assessed are also assumed to have an Aquatic Life Score of Minimal.	**UV**
Score	**5**	**4**	**3**	**2**	**1**	**4.00**

Notes: TCEQ assessed condition for aquatic life use as Good for 2014. The 2018 assessment did not evaluate the stream segment therefore it was assumed to have a suboptimal condition.

Stream Impact Assessment Form Page 2

Project #	Applicant	Locality	Cowardin Class.	HUC	Date	Transect #	Transect Description
SWG-2018-00326	Delta Land Services	Lake Creek MB		12040101	April 2, 2020	9	TR-9

4. CHANNEL ALTERATION: Stream crossings, riprap, concrete, gabions, or concrete blocks, straightening of channel, channelization, embankments, spoil piles, constrictions, livestock

	Optimal	Suboptimal	Marginal	Poor	Severe	
Channel Alteration	Channelization, dredging, alteration or hardening absent. Stream has unaltered pattern or has normalized. No dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures within the Transect.	Less than 30% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Evidence of past alteration may be present, but stream pattern and stability have recovered. Withdrawals, if present, have no observable affect on flow.	Between 30-60% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Evidence of past alteration may be present, but stream pattern and stability are beginning to recover. Withdrawals, if present, may have an observable affect on flow, but no observable affect on habitat or biota.	Between 60-90% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Evidence of past alteration is present, and stream pattern and stability are not recovering. Withdrawals, if present, may have an observable affect on both flow and habitat or biota.	Between 90-100% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Withdrawals, if present, are large enough to have severe loss of flow and cause little to no habitat or biota.	**AV**
SCORE	**5**	**4**	**3**	**2**	**1**	**5.00**

Notes: Channel alterations were not present within this transect.

REACH CONDITION INDEX and STREAM CONDITION UNITS FOR THIS REACH

THE CONDITION INDEX (CI) >>	**4.63**

INSERT PHOTOS:

Upstream

Downstream

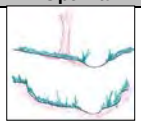
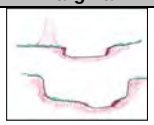
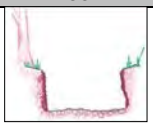
Stream Assessment Data Form for Level 1

U.S. Army Corps of Engineers Galveston District

File Number	Applicant	Stahler Stream Order	8 Digit HUC	Date	Transect #	Transect Description
SWG-2018-00326	Delta Land Services	4	12040101	April 2, 2020	10	TR-10

Name(s) of Evaluator(s)	Steam Name and Type
S. Ross	Lake Creek - Perennial Waterbody

1. Channel Condition: Assess the cross-section of the stream and prevailing condition (erosion, aggradation).

	Optimal	Suboptimal	Marginal	Poor	Severe	
Visual Channel Condition Parameter	 Channel shows very little incision or widening and little or no evidence of erosion or unprotected banks. Indicators of stability include greater than 80% vegetative cover on the banks, stable point bars and bankfull benches may be present, mid-channel and transverse bars are rare or transient. The stream has access to active floodplain or fully developed bankfull benches. No bulkheading or riprap may be present.	 Channel is slightly incised and contains a few areas of active erosion. Indicators of instability include vegetative cover or natural rock protection only present along 60-80% of the Transect, point bars and bankfull benches are likely present and transient sediment is present along 10-40% of the stream bottom. The stream has access to bankfull benches or developed floodplains along portions of the reach. Channel may show evidence of past channel alteration, but should be exhibiting notable recovery of a natural channel. Bulkhead and riprap are limited to 1-25% of the Transect.	 Channel is incised or has had its course widened. Indicators of instability include the presence of erosional scars on 40-60% of the Transect, vegetative cover or natural rock only found on 40-60% of the Transect, vertical or undercut banks, or nickpoints associated with headcuts may be present and portions of the channel may be widening while other portions of the channel are narrowing, and transient sediments are found in 40-60% of the natural stream bed or bottom. The stream does not have access to the active floodplain. Bulkheading or riprap is found along 25-50% of the Transect.	 Channel is over-widened or incised with vertically or laterally unstable banks. Visual indicators of over-widening and incision include near vertical banks with shallow root depths, erosional scars present along 60-80% of the Transect, vegetative cover or natural rock is limited to 20-40% of the Transect, substantial sediment deposition of uniformed-size material is present along 60-80% of the Transect and point bars and bankfull benches are absent. The stream does not have access to an active floodplain. Bulkheading and riprap are present along 50-80% of the Transect.	 Channel is deeply incised or excavated with vertical or lateral instability in the stream bank. Indicators of instability include the streambed elevation located below the rooting depth, both banks are vertical or undercut, vegetative surface protection or natural rock is only found along 20% or less of the Transect, the bank is sloughing and erosional scars or raw banks present on 80-100% of the Transect and 80% or more of the natural streambed is covered by substantial sediment resulting in threaded channels. The stream does not have access to an active floodplain.	**CV**
Score	**5**	**4**	**3**	**2**	**1**	**5.0**

Notes: Channel is stable with access to the floodplain.

2. RIPARIAN BUFFERS: Assess both banks' 100-foot riparian areas along the entire Transect.

	Optimal	Suboptimal		Marginal	Poor	Severe
Riparian Buffers	Native woody species represent greater than 60% of the coverage and wetlands are present.	Native woody community species represent greater than 60% coverage with *NO* wetlands present within the buffer **OR** native woody community species represent 30-60% coverage with wetlands present. No maintenance or grazing activities.	Native woody community species represent between 30-60% coverage with *NO* wetlands present. No maintenance or grazing activities.	Native woody community represents less than 30% coverage with no maintenance or grazing activities.	The buffer is dominated by one or more of the following: lawns, mowed or maintained right-of-way, no-till cropland, actively grazed pasture, sparsely vegetated non-maintained area, recently seeded and stabilized or other comparable condition.	The area is dominated by impervious surfaces, mine spoil lands, denuded surfaces, conventional tillage row crops, active feed lots or comparable conditions.
Condition Scores	**5**	**High = 4.5**	**Low = 4**	**3**	**2**	**1**

Notes: Native woody riparian area with no evidence of cattle exists in the buffer area. Wetlands are present on the left bank of Lake Creek.

Right Bank	% Riparian Area>	**100%**						**100%**			
	Score >	**4.5**									
									CI= (Sum % RA * Scores*0.01)/2		
Left Bank	% Riparian Area>	**93%**	**7%**					**100%**	**Rt Bank CI >**	**4.50**	**BV**
	Score >	**4.5**	**5**						**Lt Bank CI >**	**4.54**	**4.52**

3. AQUATIC USE: The Transect is assessed based on the aquatic life use category score assigned to the stream segment by the TCEQ.

	Optimal	Suboptimal	Marginal	Poor	Severe	
AQUATIC USE	Aquatic Life Score of Exceptional.	Aquatic Life Score of High. Perennial streams that have not been assessed are also assumed to have an Aquatic Life Score of High.	Aquatic Life Score of Intermediate.	Aquatic Life Score of Limited. Intermittent Streams with Perennial Pools that have not been assessed are also assumed to have an Aquatic Life Score of Limited.	Aquatic Life Score of Minimal. Intermittent and ephemeral streams that have not been assessed are also assumed to have an Aquatic Life Score of Minimal.	**UV**
Score	**5**	**4**	**3**	**2**	**1**	**4.00**

Notes: TCEQ assessed condition for aquatic life use as Good for 2014. The 2018 assessment did not evaluate the stream segment therefore it was assumed to have a suboptimal condition.

Stream Impact Assessment Form Page 2

Project #	Applicant	Locality	Cowardin Class.	HUC	Date	Transect #	Transect Description
SWG-2018-00326	Delta Land Services	Lake Creek MB		12040101	April 2, 2020	10	TR-10

4. CHANNEL ALTERATION: Stream crossings, riprap, concrete, gabions, or concrete blocks, straightening of channel, channelization, embankments, spoil piles, constrictions, livestock

	Optimal	Suboptimal	Marginal	Poor	Severe	
Channel Alteration	Channelization, dredging, alteration or hardening absent. Stream has unaltered pattern or has normalized. No dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures within the Transect.	Less than 30% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Evidence of past alteration may be present, but stream pattern and stability have recovered. Withdrawals, if present, have no observable affect on flow.	Between 30-60% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Evidence of past alteration may be present, but stream pattern and stability are beginning to recover. Withdrawals, if present, may have an observable affect on flow, but no observable affect on habitat or biota.	Between 60-90% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Evidence of past alteration is present, and stream pattern and stability are not recovering. Withdrawals, if present, may have an observable affect on both flow and habitat or biota.	Between 90-100% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Withdrawals, if present, are large enough to have severe loss of flow and cause little to no habitat or biota.	**AV**
SCORE	**5**	**4**	**3**	**2**	**1**	**5.00**

Notes: Channel alterations were not present within this transect.

REACH CONDITION INDEX and STREAM CONDITION UNITS FOR THIS REACH

THE CONDITION INDEX (CI) >>	**4.63**

INSERT PHOTOS:

Upstream

Downstream

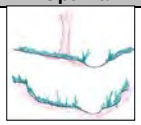
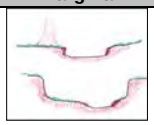
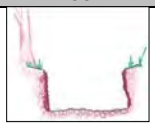
Stream Assessment Data Form for Level 1

U.S. Army Corps of Engineers Galveston District

File Number	Applicant	Stahler Stream Order	8 Digit HUC	Date	Transect #	Transect Description
SWG-2018-00326	Delta Land Services	4	12040101	April 2, 2020	11	TR-11

Name(s) of Evaluator(s)	Steam Name and Type
S. Ross	Lake Creek - Perennial Waterbody

1. Channel Condition: Assess the cross-section of the stream and prevailing condition (erosion, aggradation).

	Optimal	Suboptimal	Marginal	Poor	Severe	
Visual Channel Condition Parameter	 Channel shows very little incision or widening and little or no evidence of erosion or unprotected banks. Indicators of stability include greater than 80% vegetative cover on the banks, stable point bars and bankfull benches may be present, mid-channel and transverse bars are rare or transient. The stream has access to active floodplain or fully developed bankfull benches. No bulkheading or riprap may be present.	 Channel is slightly incised and contains a few areas of active erosion. Indicators of instability include vegetative cover or natural rock protection only present along 60-80% of the Transect, point bars and bankfull benches are likely present and transient sediment is present along 10-40% of the stream bottom. The stream has access to bankfull benches or developed floodplains along portions of the reach. Channel may show evidence of past channel alteration, but should be exhibiting notable recovery of a natural channel. Bulkhead and riprap are limited to 1-25% of the Transect.	 Channel is incised or has had its course widened. Indicators of instability include the presence of erosional scars on 40-60% of the Transect, vegetative cover or natural rock only found on 40-60% of the Transect, vertical or undercut banks, or nickpoints associated with headcuts may be present and portions of the channel may be widening while other portions of the channel are narrowing, and transient sediments are found in 40-60% of the natural stream bed or bottom. The stream does not have access to the active floodplain. Bulkheading or riprap is found along 25-50% of the Transect.	 Channel is over-widened or incised with vertically or laterally unstable banks. Visual indicators of over-widening and incision include near vertical banks with shallow root depths, erosional scars present along 60-80% of the Transect, vegetative cover or natural rock is limited to 20-40% of the Transect, substantial sediment deposition of uniformed-size material is present along 60-80% of the Transect and point bars and bankfull benches are absent. The stream does not have access to an active floodplain. Bulkheading and riprap are present along 50-80% of the Transect.	 Channel is deeply incised or excavated with vertical or lateral instability in the stream bank. Indicators of instability include the streambed elevation located below the rooting depth, both banks are vertical or undercut, vegetative surface protection or natural rock is only found along 20% or less of the Transect, the bank is sloughing and erosional scars or raw banks present on 80-100% of the Transect and 80% or more of the natural streambed is covered by substantial sediment resulting in threaded channels. The stream does not have access to an active floodplain.	CV
Score	5	4	3	2	1	4.0

Notes: A low water crossing made of concrete is present on the southern portion of the transect.

2. RIPARIAN BUFFERS: Assess both banks' 100-foot riparian areas along the entire Transect.

	Optimal	Suboptimal		Marginal	Poor	Severe
Riparian Buffers	Native woody species represent greater than 60% of the coverage and wetlands are present.	Native woody community species represent greater than 60% coverage with *NO* wetlands present within the buffer **OR** native woody community species represent 30-60% coverage with wetlands present. No maintenance or grazing activities.	Native woody community species represent between 30-60% coverage with *NO* wetlands present. No maintenance or grazing activities.	Native woody community represents less than 30% coverage with no maintenance or grazing activities.	The buffer is dominated by one or more of the following: lawns, mowed or maintained right-of-way, no-till cropland, actively grazed pasture, sparsely vegetated non-maintained area, recently seeded and stabilized or other comparable condition.	The area is dominated by impervious surfaces, mine spoil lands, denuded surfaces, conventional tillage row crops, active feed lots or comparable conditions.
Condition Scores	5	High = 4.5	Low = 4	3	2	1

Notes: Native woody riparian area with no evidence of cattle exists in the buffer area. Wetlands are present on the left bank of Lake Creek.

Right Bank	% Riparian Area>	100%						100%			
	Score >	4.5									
									CI= (Sum % RA * Scores*0.01)/2		
Left Bank	% Riparian Area>	20%	80%					100%	Rt Bank CI >	4.50	BV
	Score >	5	4.5						Lt Bank CI >	4.60	4.55

3. AQUATIC USE: The Transect is assessed based on the aquatic life use category score assigned to the stream segment by the TCEQ.

	Optimal	Suboptimal	Marginal	Poor	Severe	
AQUATIC USE	Aquatic Life Score of Exceptional.	Aquatic Life Score of High. Perennial streams that have not been assessed are also assumed to have an Aquatic Life Score of High.	Aquatic Life Score of Intermediate.	Aquatic Life Score of Limited. Intermittent Streams with Perennial Pools that have not been assessed are also assumed to have an Aquatic Life Score of Limited.	Aquatic Life Score of Minimal. Intermittent and ephemeral streams that have not been assessed are also assumed to have an Aquatic Life Score of Minimal.	UV
Score	5	4	3	2	1	4.00

Notes: TCEQ assessed condition for aquatic life use as Good for 2014. The 2018 assessment did not evaluate the stream segment therefore it was assumed to have a suboptimal condition.

Stream Impact Assessment Form Page 2

Project #	Applicant	Locality	Cowardin Class.	HUC	Date	Transect #	Transect Description
SWG-2018-00326	Delta Land Services	Lake Creek MB		12040101	April 2, 2020	11	TR-11

4. CHANNEL ALTERATION: Stream crossings, riprap, concrete, gabions, or concrete blocks, straightening of channel, channelization, embankments, spoil piles, constrictions, livestock

	Optimal	Suboptimal	Marginal	Poor	Severe	
Channel Alteration	Channelization, dredging, alteration or hardening absent. Stream has unaltered pattern or has normalized. No dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures within the Transect.	Less than 30% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Evidence of past alteration may be present, but stream pattern and stability have recovered. Withdrawals, if present, have no observable affect on flow.	Between 30-60% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Evidence of past alteration may be present, but stream pattern and stability are beginning to recover. Withdrawals, if present, may have an observable affect on flow, but no observable affect on habitat or biota.	Between 60-90% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Evidence of past alteration is present, and stream pattern and stability are not recovering. Withdrawals, if present, may have an observable affect on both flow and habitat or biota.	Between 90-100% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Withdrawals, if present, are large enough to have severe loss of flow and cause little to no habitat or biota.	**AV**
SCORE	**5**	**4**	**3**	**2**	**1**	**4.00**

Notes: Transect contains a low water crossing on the southern end of the transect.

REACH CONDITION INDEX and STREAM CONDITION UNITS FOR THIS REACH

THE CONDITION INDEX (CI) >>	**4.14**

INSERT PHOTOS:

Upstream

Downstream

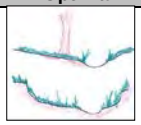
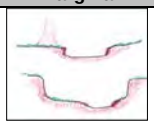
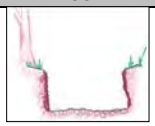
Stream Assessment Data Form for Level 1

U.S. Army Corps of Engineers Galveston District

File Number	Applicant	Stahler Stream Order	8 Digit HUC	Date	Transect #	Transect Description
SWG-2018-00326	Delta Land Services	4	12040101	April 2, 2020	12	TR-12

Name(s) of Evaluator(s)	Steam Name and Type
S. Ross	Lake Creek - Perennial Waterbody

1. Channel Condition: Assess the cross-section of the stream and prevailing condition (erosion, aggradation).

	Optimal	Suboptimal	Marginal	Poor	Severe	
Visual Channel Condition Parameter	 Channel shows very little incision or widening and little or no evidence of erosion or unprotected banks. Indicators of stability include greater than 80% vegetative cover on the banks, stable point bars and bankfull benches may be present, mid-channel and transverse bars are rare or transient. The stream has access to active floodplain or fully developed bankfull benches. No bulkheading or riprap may be present.	 Channel is slightly incised and contains a few areas of active erosion. Indicators of instability include vegetative cover or natural rock protection only present along 60-80% of the Transect, point bars and bankfull benches are likely present and transient sediment is present along 10-40% of the stream bottom. The stream has access to bankfull benches or developed floodplains along portions of the reach. Channel may show evidence of past channel alteration, but should be exhibiting notable recovery of a natural channel. Bulkhead and riprap are limited to 1-25% of the Transect.	 Channel is incised or has had its course widened. Indicators of instability include the presence of erosional scars on 40-60% of the Transect, vegetative cover or natural rock only found on 40-60% of the Transect, vertical or undercut banks, or nickpoints associated with headcuts may be present and portions of the channel may be widening while other portions of the channel are narrowing, and transient sediments are found in 40-60% of the natural stream bed or bottom. The stream does not have access to the active floodplain. Bulkheading or riprap is found along 25-50% of the Transect.	 Channel is over-widened or incised with vertically or laterally unstable banks. Visual indicators of over-widening and incision include near vertical banks with shallow root depths, erosional scars present along 60-80% of the Transect, vegetative cover or natural rock is limited to 20-40% of the Transect, substantial sediment deposition of uniformed-size material is present along 60-80% of the Transect and point bars and bankfull benches are absent. The stream does not have access to an active floodplain. Bulkheading and riprap are present along 50-80% of the Transect.	 Channel is deeply incised or excavated with vertical or lateral instability in the stream bank. Indicators of instability include the streambed elevation located below the rooting depth, both banks are vertical or undercut, vegetative surface protection or natural rock is only found along 20% or less of the Transect, the bank is sloughing and erosional scars or raw banks present on 80-100% of the Transect and 80% or more of the natural streambed is covered by substantial sediment resulting in threaded channels. The stream does not have access to an active floodplain.	**CV**
Score	**5**	**4**	**3**	**2**	**1**	**5.0**

Notes: Channel is stable with access to the floodplain.

2. RIPARIAN BUFFERS: Assess both banks' 100-foot riparian areas along the entire Transect.

	Optimal	Suboptimal		Marginal	Poor	Severe
Riparian Buffers	Native woody species represent greater than 60% of the coverage and wetlands are present.	Native woody community species represent greater than 60% coverage with *NO* wetlands present within the buffer **OR** native woody community species represent 30-60% coverage with wetlands present. No maintenance or grazing activities.	Native woody community species represent between 30-60% coverage with *NO* wetlands present. No maintenance or grazing activities.	Native woody community represents less than 30% coverage with no maintenance or grazing activities.	The buffer is dominated by one or more of the following: lawns, mowed or maintained right-of-way, no-till cropland, actively grazed pasture, sparsely vegetated non-maintained area, recently seeded and stabilized or other comparable condition.	The area is dominated by impervious surfaces, mine spoil lands, denuded surfaces, conventional tillage row crops, active feed lots or comparable conditions.
Condition Scores	**5**	**High = 4.5**	**Low = 4**	**3**	**2**	**1**

Notes: Native woody riparian area with no evidence of cattle exists in the buffer area. Wetlands are present on the left bank of Lake Creek.

Right Bank	% Riparian Area>	**100%**						**100%**			
	Score >	**4.5**									
									CI= (Sum % RA * Scores*0.01)/2		
Left Bank	% Riparian Area>	**14%**	**86%**					**100%**	**Rt Bank CI >**	**4.50**	**BV**
	Score >	**5**	**4.5**						**Lt Bank CI >**	**4.57**	**4.54**

3. AQUATIC USE: The Transect is assessed based on the aquatic life use category score assigned to the stream segment by the TCEQ.

	Optimal	Suboptimal	Marginal	Poor	Severe	
AQUATIC USE	Aquatic Life Score of Exceptional.	Aquatic Life Score of High. Perennial streams that have not been assessed are also assumed to have an Aquatic Life Score of High.	Aquatic Life Score of Intermediate.	Aquatic Life Score of Limited. Intermittent Streams with Perennial Pools that have not been assessed are also assumed to have an Aquatic Life Score of Limited.	Aquatic Life Score of Minimal. Intermittent and ephemeral streams that have not been assessed are also assumed to have an Aquatic Life Score of Minimal.	**UV**
Score	**5**	**4**	**3**	**2**	**1**	**4.00**

Notes: TCEQ assessed condition for aquatic life use as Good for 2014. The 2018 assessment did not evaluate the stream segment therefore it was assumed to have a suboptimal condition.

Stream Impact Assessment Form Page 2

Project #	Applicant	Locality	Cowardin Class.	HUC	Date	Transect #	Transect Description
SWG-2018-00326	Delta Land Services	Lake Creek MB		12040101	April 2, 2020	12	TR-12

4. CHANNEL ALTERATION: Stream crossings, riprap, concrete, gabions, or concrete blocks, straightening of channel, channelization, embankments, spoil piles, constrictions, livestock

	Optimal	Suboptimal	Marginal	Poor	Severe	
Channel Alteration	Channelization, dredging, alteration or hardening absent. Stream has unaltered pattern or has normalized. No dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures within the Transect.	Less than 30% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Evidence of past alteration may be present, but stream pattern and stability have recovered. Withdrawals, if present, have no observable affect on flow.	Between 30-60% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Evidence of past alteration may be present, but stream pattern and stability are beginning to recover. Withdrawals, if present, may have an observable affect on flow, but no observable affect on habitat or biota.	Between 60-90% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Evidence of past alteration is present, and stream pattern and stability are not recovering. Withdrawals, if present, may have an observable affect on both flow and habitat or biota.	Between 90-100% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Withdrawals, if present, are large enough to have severe loss of flow and cause little to no habitat or biota.	**AV**
SCORE	**5**	**4**	**3**	**2**	**1**	**5.00**

Notes: No evidence of channel alterations are present in this transect.

REACH CONDITION INDEX and STREAM CONDITION UNITS FOR THIS REACH

THE CONDITION INDEX (CI) >>	**4.63**

INSERT PHOTOS:

Upstream

Downstream

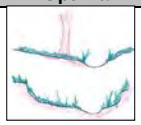
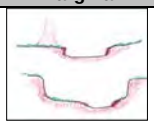
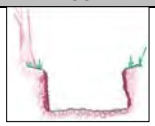
Stream Assessment Data Form for Level 1

U.S. Army Corps of Engineers Galveston District

File Number	Applicant	Stahler Stream Order	8 Digit HUC	Date	Transect #	Transect Description
SWG-2018-00326	Delta Land Services	4	12040101	April 2, 2020	13	TR-13

Name(s) of Evaluator(s)	Steam Name and Type
S. Ross	Lake Creek - Perennial Waterbody

1. Channel Condition: Assess the cross-section of the stream and prevailing condition (erosion, aggradation).

	Optimal	Suboptimal	Marginal	Poor	Severe	
Visual Channel Condition Parameter	 Channel shows very little incision or widening and little or no evidence of erosion or unprotected banks. Indicators of stability include greater than 80% vegetative cover on the banks, stable point bars and bankfull benches may be present, mid-channel and transverse bars are rare or transient. The stream has access to active floodplain or fully developed bankfull benches. No bulkheading or riprap may be present.	 Channel is slightly incised and contains a few areas of active erosion. Indicators of instability include vegetative cover or natural rock protection only present along 60-80% of the Transect, point bars and bankfull benches are likely present and transient sediment is present along 10-40% of the stream bottom. The stream has access to bankfull benches or developed floodplains along portions of the reach. Channel may show evidence of past channel alteration, but should be exhibiting notable recovery of a natural channel. Bulkhead and riprap are limited to 1-25% of the Transect.	 Channel is incised or has had its course widened. Indicators of instability include the presence of erosional scars on 40-60% of the Transect, vegetative cover or natural rock only found on 40-60% of the Transect, vertical or undercut banks, or nickpoints associated with headcuts may be present and portions of the channel may be widening while other portions of the channel are narrowing, and transient sediments are found in 40-60% of the natural stream bed or bottom. The stream does not have access to the active floodplain. Bulkheading or riprap is found along 25-50% of the Transect.	 Channel is over-widened or incised with vertically or laterally unstable banks. Visual indicators of over-widening and incision include near vertical banks with shallow root depths, erosional scars present along 60-80% of the Transect, vegetative cover or natural rock is limited to 20-40% of the Transect, substantial sediment deposition of uniformed-size material is present along 60-80% of the Transect and point bars and bankfull benches are absent. The stream does not have access to an active floodplain. Bulkheading and riprap are present along 50-80% of the Transect.	 Channel is deeply incised or excavated with vertical or lateral instability in the stream bank. Indicators of instability include the streambed elevation located below the rooting depth, both banks are vertical or undercut, vegetative surface protection or natural rock is only found along 20% or less of the Transect, the bank is sloughing and erosional scars or raw banks present on 80-100% of the Transect and 80% or more of the natural streambed is covered by substantial sediment resulting in threaded channels. The stream does not have access to an active floodplain.	**CV**
Score	**5**	**4**	**3**	**2**	**1**	**5.0**

Notes: Channel is stable with access to the floodplain.

2. RIPARIAN BUFFERS: Assess both banks' 100-foot riparian areas along the entire Transect.

	Optimal	Suboptimal		Marginal	Poor	Severe
Riparian Buffers	Native woody species represent greater than 60% of the coverage and wetlands are present.	Native woody community species represent greater than 60% coverage with *NO* wetlands present within the buffer **OR** native woody community species represent 30-60% coverage with wetlands present. No maintenance or grazing activities.	Native woody community species represent between 30-60% coverage with *NO* wetlands present. No maintenance or grazing activities.	Native woody community represents less than 30% coverage with no maintenance or grazing activities.	The buffer is dominated by one or more of the following: lawns, mowed or maintained right-of-way, no-till cropland, actively grazed pasture, sparsely vegetated non-maintained area, recently seeded and stabilized or other comparable condition.	The area is dominated by impervious surfaces, mine spoil lands, denuded surfaces, conventional tillage row crops, active feed lots or comparable conditions.
Condition Scores	**5**	**High = 4.5**	**Low = 4**	**3**	**2**	**1**

Notes: Native woody riparian area with no evidence of cattle exists in the buffer area. Wetlands are present on the left and right bank of Lake Creek.

Right Bank	% Riparian Area>	**90%**	**10%**					**100%**			
	Score >	**4.5**	**5**								
									CI= (Sum % RA * Scores*0.01)/2		
Left Bank	% Riparian Area>	**25%**	**75%**					**100%**	**Rt Bank CI >**	**4.55**	**BV**
	Score >	**5**	**4.5**						**Lt Bank CI >**	**4.63**	**4.59**

3. AQUATIC USE: The Transect is assessed based on the aquatic life use category score assigned to the stream segment by the TCEQ.

	Optimal	Suboptimal	Marginal	Poor	Severe	
AQUATIC USE	Aquatic Life Score of Exceptional.	Aquatic Life Score of High. Perennial streams that have not been assessed are also assumed to have an Aquatic Life Score of High.	Aquatic Life Score of Intermediate.	Aquatic Life Score of Limited. Intermittent Streams with Perennial Pools that have not been assessed are also assumed to have an Aquatic Life Score of Limited.	Aquatic Life Score of Minimal. Intermittent and ephemeral streams that have not been assessed are also assumed to have an Aquatic Life Score of Minimal.	**UV**
Score	**5**	**4**	**3**	**2**	**1**	**4.00**

Notes: TCEQ assessed condition for aquatic life use as Good for 2014. The 2018 assessment did not evaluate the stream segment therefore it was assumed to have a suboptimal condition.

Stream Impact Assessment Form Page 2

Project #	Applicant	Locality	Cowardin Class.	HUC	Date	Transect #	Transect Description
SWG-2018-00326	Delta Land Services	Lake Creek MB		12040101	April 2, 2020	13	TR-13

4. CHANNEL ALTERATION: Stream crossings, riprap, concrete, gabions, or concrete blocks, straightening of channel, channelization, embankments, spoil piles, constrictions, livestock

	Optimal	Suboptimal	Marginal	Poor	Severe	
Channel Alteration	Channelization, dredging, alteration or hardening absent. Stream has unaltered pattern or has normalized. No dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures within the Transect.	Less than 30% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Evidence of past alteration may be present, but stream pattern and stability have recovered. Withdrawals, if present, have no observable affect on flow.	Between 30-60% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Evidence of past alteration may be present, but stream pattern and stability are beginning to recover. Withdrawals, if present, may have an observable affect on flow, but no observable affect on habitat or biota.	Between 60-90% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Evidence of past alteration is present, and stream pattern and stability are not recovering. Withdrawals, if present, may have an observable affect on both flow and habitat or biota.	Between 90-100% of the Transect is impacted by dredging, dams, dikes, levees, culverts, riprap, bulkheads, armor, drop structures or withdrawal structures. Withdrawals, if present, are large enough to have severe loss of flow and cause little to no habitat or biota.	**AV**
SCORE	**5**	**4**	**3**	**2**	**1**	**5.00**

Notes: No evidence of channel alterations are present in this transect.

REACH CONDITION INDEX and STREAM CONDITION UNITS FOR THIS REACH

THE CONDITION INDEX (CI) >>	**4.65**

INSERT PHOTOS:

Upstream

Downstream

Appendix D

Cultural Resource Background Review

PERENNIAL
Environmental Services
5424 W. US Hwy 290, Suite 208
Austin, Texas 78735

MEMORANDUM

Date	April 15, 2020
Prepared by	Jennifer L Cochran, MA, RPA
Prepared for	Delta Land Services, LLC
Project	Lake Creek Mitigation Tract
Subject	Background Review

Introduction

On behalf of Delta Land Services, LLC (Delta), Perennial Environmental Services, LLC (Perennial) completed a desktop analysis for the Lake Creek Mitigation Tract (Project) located 4.5 miles northwest of Montgomery in Montgomery County, Texas. Delta proposes to convert portions of a 225.2-acre (ac-) (91.1-hectares [ha-]) land tract in Montgomery County, Texas into a permanent conservation easement (Attachment 1). Specifically, this will include soil discing across open cleared areas to a variable depth of 1.1 to 1.3 feet (ft) (0.3 to 0.4 meters [m]) in advance of tree planting. No impacts are anticipated within the wooded areas, which comprise approximately 30 percent of the overall Project area.

The Project area is bisected by the north-south running Lake Creek, which is flanked by a wide lowland floodplain. Upland terraces characterize the eastern portion of the Project area, while the western Project area boundary coincides with a railroad. The mapped soil profiles within the Project area are characteristic of a floodplain setting underlain by a combination of Holocene and Miocene-age geologic formations (Tables 1 and 2).

Table 1. Soil Map Units within the Project area

Map Unit	Texture and Drainage	General Location
Betis fine sand, 0 to 5 percent slopes (BlC)	The Betis series consists of very deep, somewhat excessively drained rapidly permeable, sandy upland soils. Texture is loamy fine sand; slopes range from 0 to 12 percent.	Upland Interfluves
Fetzer loamy fine sand, 1 to 5 percent slopes (WkC)	The Fetzer series consists of deep, somewhat poorly drained, slowly permeable soils. Texture is loamy fine sand; slopes range from 0 to 8 percent.	Uplands
Kaman clay, 0 to 1 percent slopes, frequently flooded (KanA)	The Kaman series consists of very deep, somewhat poorly drained, very slowly permeable soils. Texture is clay, slopes range from 0 to 1 percent.	Floodplains
Kaufman clay, 0 to 1 percent slopes, frequently flooded, southern (Kc)	The Kaufman series consists of very deep, moderately well drained, very slowly permeable soils. Texture is clay. 0 to 2 percent slopes.	Flood Plains, dissected plains

Table 1. Soil Map Units within the Project area		
Map Unit	**Texture and Drainage**	**General Location**
Kosse soils, frequently flooded (Ks)	The Kosse series consists of very deep, moderately well drained and moderately permeable soils. Texture is sandy clay loam; slopes range from 0 to 1 percent.	Level Floodplains
Landman fine sand (Ab)	The Landman series consists of deep, moderately well drained, moderately slowly permeable soils. Texture is loamy fine sand; slopes range from 0 to 5 percent.	Low Stream Terraces
Trinity clay, frequently flooded (Tc)	The Trinity series consists of very deep, moderately well drained, very slowly permeable soils. Texture is clay; slopes range from 0 to 3 percent.	Flood Plains, Dissected Plains
Woodville fine sandy loam, 5 to 12 percent slopes (SuD)	The Woodville series consists of deep, somewhat poorly drained, very slowly permeable soils. Texture is fine sandy loam; slopes range from 1 to 12 percent.	Uplands

Table 2. Geological Units within the Project area			
Geologic Map Unit	**Description**	**Geologic Age**	**Geologic Map Unit underlies the Project area**
Alluvium (Qal)	Alluvium and low terrace deposits along streams, sand, silt, clay, and gravel	Holocene	73 %
Fleming Formation (Mf)	Clay and Sandstone, clay is calcareous and forms dark colored soil	Miocene	27 %

Methods

Perennial archaeologists conducted a records and literature review of the Texas Historical Commission (THC)'s Texas Archeological Sites Atlas (Atlas) online database and the NRHP database to identify previously recorded cultural resource sites, historic structures, properties listed in the NRHP, designated historic districts, or State Antiquities Landmarks (SAL) which could potentially be affected by the proposed undertaking. Any previously recorded cultural resource site forms, reports of archaeological investigations, general historical documents, and secondary sources concerning the background of the area were reviewed. The records search included a review of all previously recorded site forms, cemetery data, and surveys on file within a 1.0- mi (1.6-km) review radius of the Project.

In addition to a records and literature search, archaeologists gathered information from secondary sources concerning the prehistoric and historic background of the area. Documents associated with the history of the area were used to model prehistoric and historic settlement patterns in relation to the landscape and terrain characteristics as well as cultural patterns and regional trends.

NRCS soil data, US Geological Survey (USGS) 7.5-minute topographic quadrangles, aerial photographs, and contemporary geologic and physiographic features were also examined.

The background review revealed that no previously recorded archeological sites or cemeteries are mapped within the Project area. One previously recorded site (41MQ293) is mapped within a 1.0-mi (1.6-km) radius of the Project area (Table 3). Site 41MQ293 consists of a prehistoric lithic scatter first documented during linear survey conducted in 2012. Based on the distance of the site away from the Project area, the site will not be impacted by any project-related activities.

Additionally, the background review also revealed a total of two previous archaeological surveys have been conducted within 1.0 mi (1.6 km) of the Project (Table 4). These archaeological investigations consist of Phase I surveys for large-scale energy infrastructure projects. The lead agency on these projects was the Corps of Engineers. None of the surveys identified are adjacent to or overlap the Project area.

Overall, very little survey work has been done in the immediate region, which accounts for the low number of previously recorded properties across the broader review radius. The limited survey work has typically been restricted to narrow linear corridors, such as those for oil and gas-related development, or roadway infrastructure. While there is little previous survey or site data for the Project, a broader review of the region indicates that prehistoric archeological sites are primarily situated on terrace formations adjacent to major waterways.

Table 3. Previously Recorded Sites within 1.0-mi (1.6-km) review radius of the Project area2

Site Trinomial	Site Description	Year Recorded	NRHP Eligibility	Distance from Project area
41MQ293	Lithic Scatter	2012	Ineligible	0.93mi (1.50km)

Table 4. Previously Conducted Surveys within 1.0-mi (1.6-km) review radius of the Project area

Digit Atlas Number	TAC Permit Number	Date	Agency Sponsor	Author	Report Title	Distance from Project
8400003614	0	Not Found	Not Found	Not Found	No Report Title Information Found	0.36mi (0.57km)
8500023721	6220	4/30/2012	Corps of Engineers	Marek, Marianne, Todd Butler	No Report Title Information Found	0.94mi (1.52km)

Conclusions

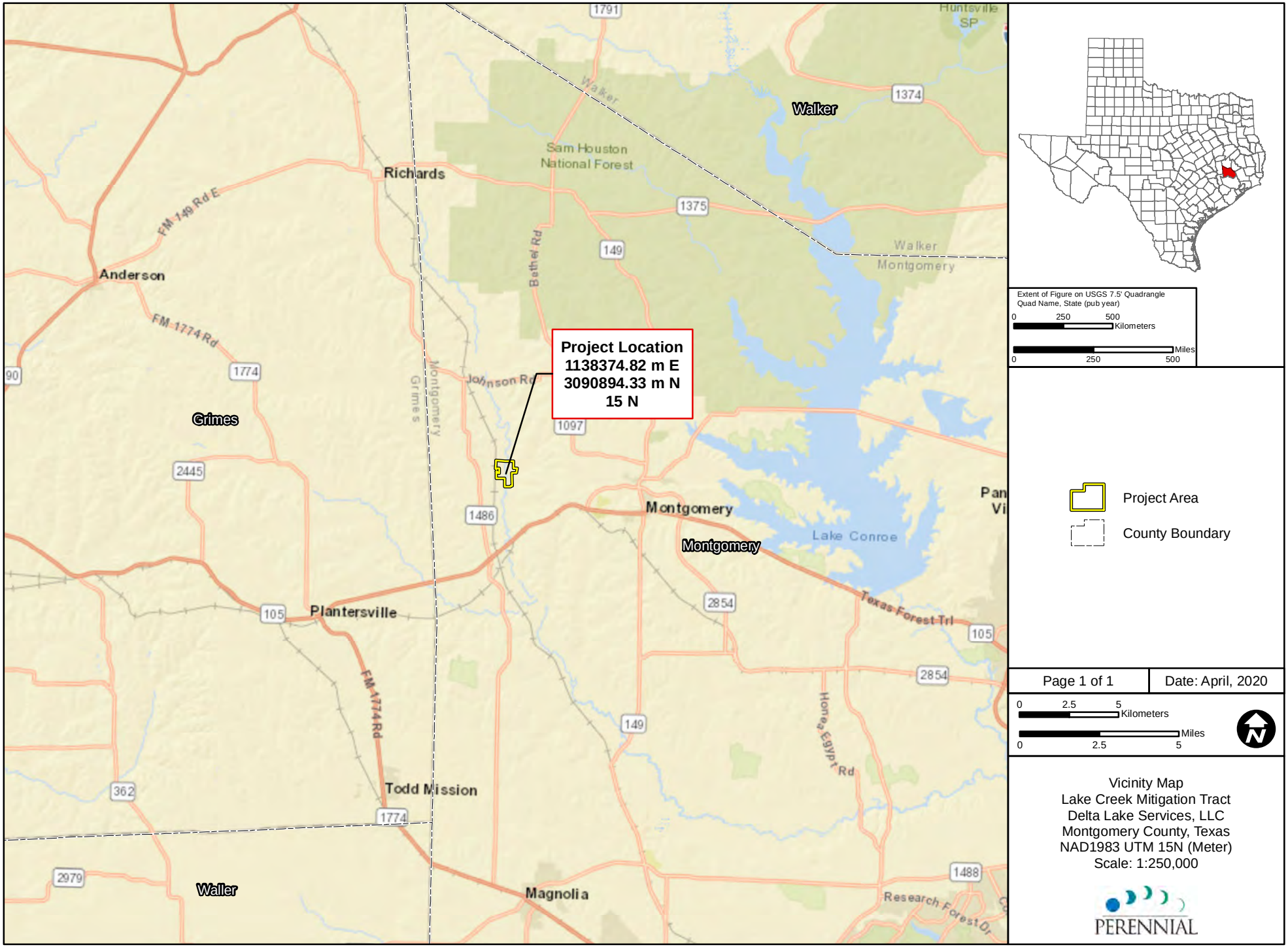
Overall, the Project area is located within a setting that has remained relatively undeveloped overtime. Lake Creek bisects the Project area, creating a wide lowland setting that is ideal for the development of a permanent wetland conservation easement. Archeological materials, if present, would likely be situated along the upland terraces along the eastern margins of the Project area, or buried below the proposed depth of impact (i.e, 1.3 feet [0.4-m]) across areas underlain by Holocene-age alluvial deposits.

References Cited

(Atlas) Texas Archeological Sites Atlas
2020 Texas Archeological Site Atlas restricted database, Texas Historical Commission. http://nueces.thc. state.tx.us/, accessed April 09, 2020.

PERENNIAL
Environmental Services
5424 W. US Hwy 290, Suite 208
Austin, Texas 78735

ATTACHMENT 1 – PROJECT MAPPING



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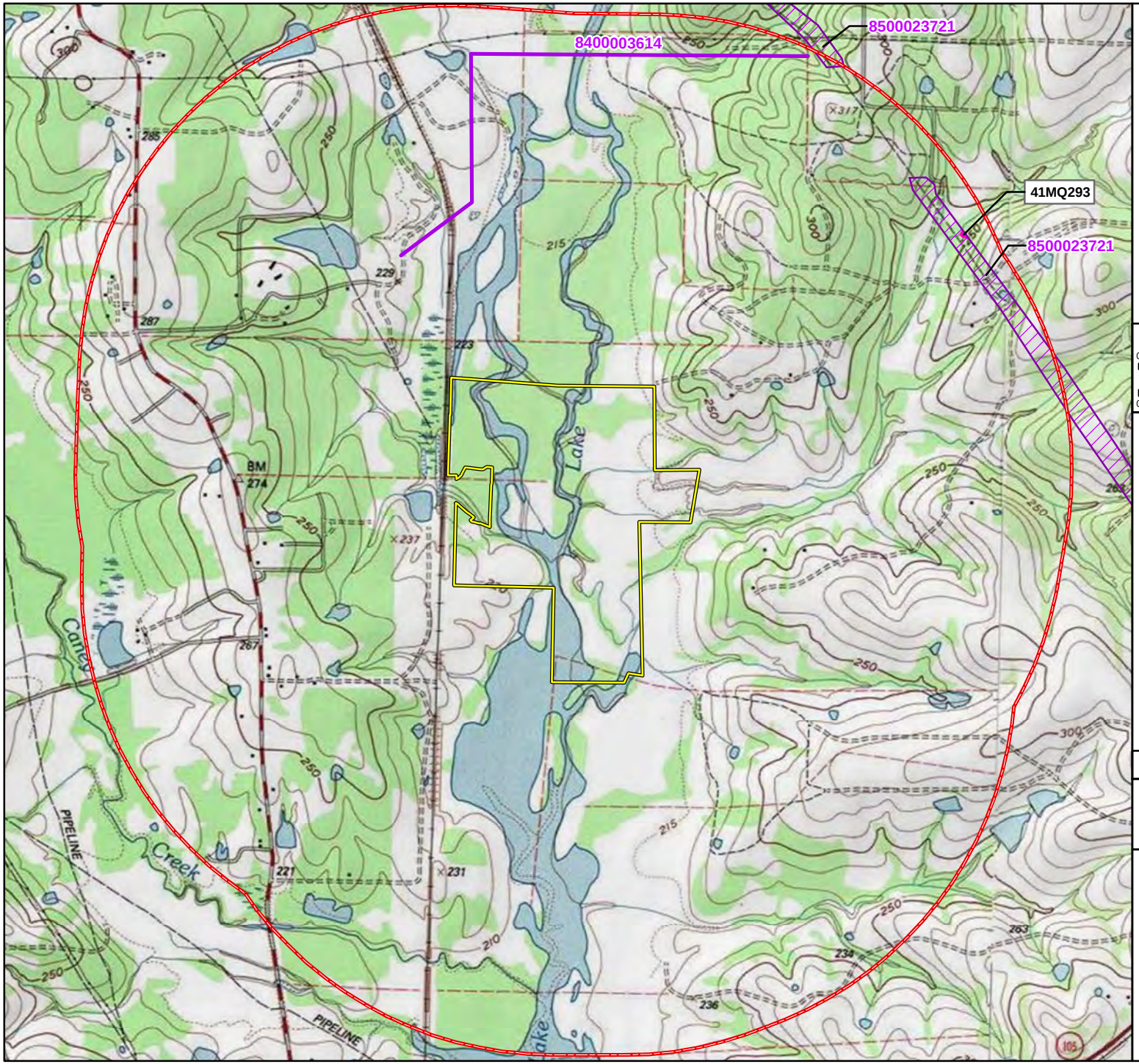
Author: SN



Extent of Figure on USGS 7.5' Quadrangle
Quad Name, State (pub year)

0 250 500 Kilometers

0 250 500 Miles

Previously Conducted Survey

Previously Conducted Survey

Previously Recorded Site

Project Area

1 Mile Radius

Page 1 of 1	Date: April, 2020

0 250 500 Meters

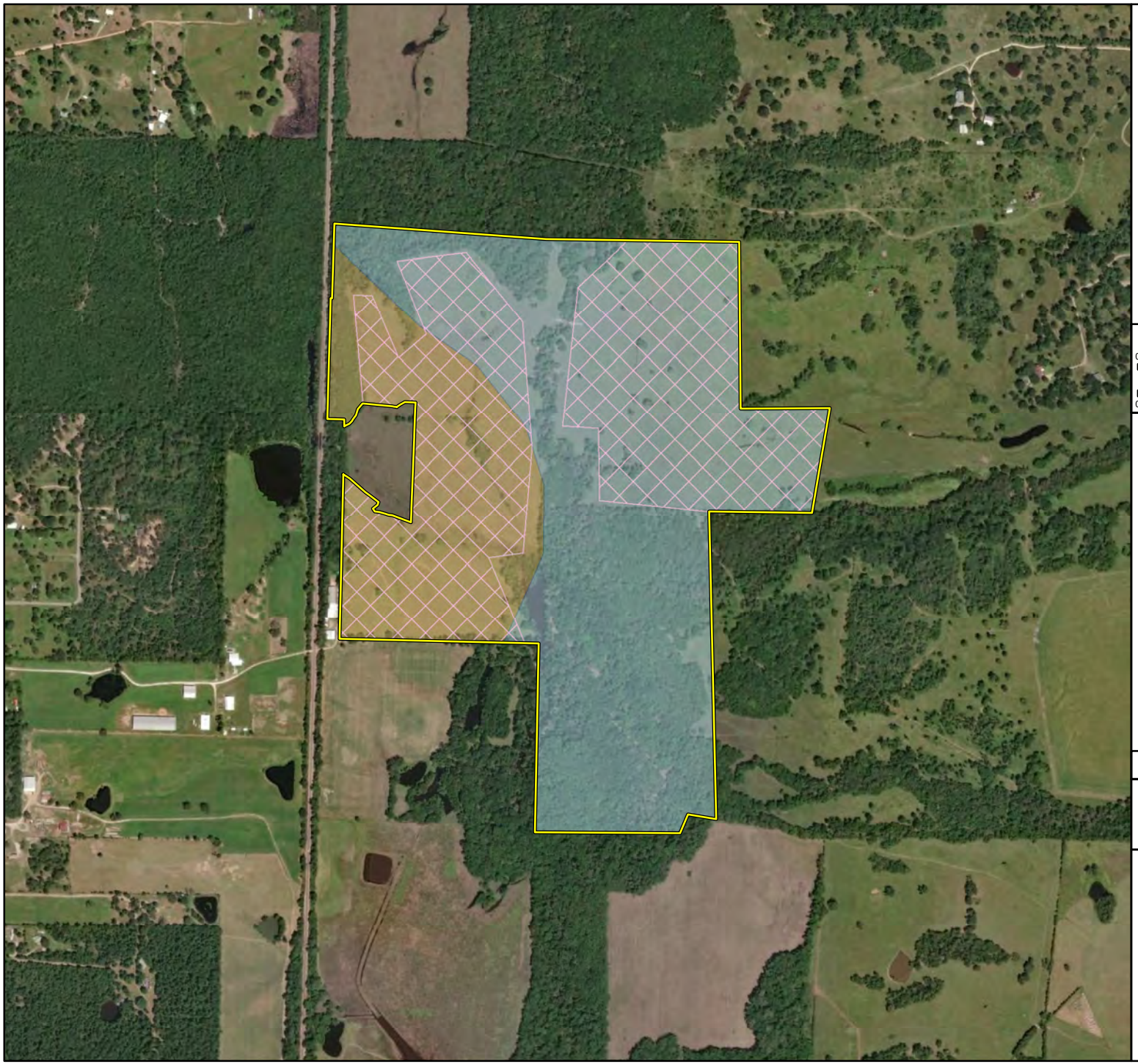
0 1,000 2,000 Feet

Topographic Map
Lake Creek Mitigation Tract
Delta Lake Services, LLC
Montgomery County, Texas
NAD1983 UTM 15N (Meter)
Scale: 1:24,000

PERENNIAL

Document Path: P:\GIS\Client\Delta_Land_Services\Lake_Creek_Mitigation_Tract\Maps\CR\Report Maps\SHPO_20200410\MXD\3_Topo.mxd

Author: SN



Extent of Figure on USGS 7.5' Quadrangle
Quad Name, State (pub year)

0 250 500 Kilometers

0 250 500 Miles

Project Area

Proposed Discing Areas

USGS Formation (Flemming)

USGS Formation (Holocene)

Page 1 of 1	Date: April, 2020

0 150 300 Meters

0 500 1,000 Feet

Aerial Map
Lake Creek Mitigation Tract
Delta Lake Services, LLC
Montgomery County, Texas
NAD1983 UTM 15N (Meter)
Scale: 1:12,000

PERENNIAL

Document Path: P:\GIS\Client\Delta_Land_Services\Lake_Creek_Mitigation_Tract\Maps\CR\Report Maps\SHPO_20200410\MXD\2_Aerial_12000.mxd

Author: SN

Appendix E

Survey Plat, Title Commitment and Title Opinion

SURVEY OF

5.21 ACRES & 232.87 ACRES

LOCATED IN THE A WHITE & W LANDRUM SURVEY, ABSTRACT NO. 43 / 21

BASED ON THE DEED THEREOF RECORDED IN

COUNTY CLERK'S FILE 2006-089421

THE DEED RECORDS MONTGOMERY COUNTY, TEXAS

REF : JACOBS G. F. 4000411800323 DATE : JULY 10 2018

I HEREBY CERTIFY TO __________THAT THIS TEXAS SOCIETY OF PROFESSIONAL SURVEYS CATAGORY 1A CONDITION 3 SURVEY WAS MADE ON THE GROUND, AND TO THE BEST OF MY KNOWLEDGE, THIS PLAT CORRECTLY REPRESENTS THE FACTS AT THE TIME OF THE SURVEY AND THAT THERE ARE NO VISIBLE ENCROACHMENTS, OVERLAPS DISCREPANCIES, OR CONFLICTS EXCEPT AS SHOWN HEREON.

STEVEN E. LAUGHLIN R.P.L.S. # 5178

1) THE BEARINGS SHOWN HEREON ARE BASED ON NAD. 83, TEXAS CENTRAL ZONE.

2) THE SURVEYOR HAS NOT ABSTRACTED THE SUBJECT PROPERTY.

3) THIS SURVEY WAS PREFORMED WITH THE BENEFIT OF A TITLE COMMITMENT ISSUED BY ALAMO TITLE INSURANCE CO GF# 4000411800323a

4) SURVEYOR HAS MADE NO INVESTIGATION OR INDEPENDENT SEARCH FOR EASEMENTS OF RECORD, ENCUMBRANCES, RESTRICTIVE COVENANTS, OWNERSHIP, TITLE EVIDENCE, OR ANY OTHER FACTS THAT AN ACCURATE AND CURRENT TITLE SEARCH MAY DISCLOSE.

5) ALL CORNERS ARE 60d NAILS SET UNLESS OTHERWISE NOTED

LINE	BEARING	DISTANCE
L1	N 60°34'22" E	40.05'
L2	N 38°31'19" E	30.84'
L3	N 30°39'42" E	45.77'
L4	N 15°55'51" E	45.31'
L5	N 34°13'30" E	52.97'
L6	S 88°02'05" E	210.83'
L7	S 84°24'28" E	32.83'
L8	S 01°21'21" E	766.85'
L9	N 89°39'03" W	25.95'
L10	N 71°48'39" W	20.98'
L11	N 80°38'01" W	49.00'
L12	N 83°46'25" W	32.37'
L13	N 34°20'46" W	23.48'
L14	N 47°53'34" E	20.50'
L15	N 50°52'32" E	22.23'
L16	N 18°25'38" E	19.66'
L17	N 56°15'26" W	71.81'
L18	N 58°16'32" W	46.40'
L19	N 52°10'27" W	146.30'
L20	N 60°35'25" W	25.90'
L21	N 60°35'30" W	32.02'
L22	N 02°31'43" W	340.40'

LINE	BEARING	DISTANCE
AE1	S 02°44'08" E	1562.62'
AE2	S 02°32'20" E	36.61'
AE3	N 67°26'54" E	1261.60'
AE4	N 65°36'39" E	248.41'
AE5	N 76°13'29" E	431.10'
AE6	N 75°39'30" E	720.45'
AE7	S 76°37'01" E	78.20'
AE8	S 08°29'21" W	10.04'
AE9	S 04°26'53" W	10.12'
AE10	N 76°37'01" W	75.70'
AE11	S 75°39'30" W	715.61'
AE12	S 76°13'29" W	429.34'
AE13	S 65°36'39" W	246.88'
AE14	S 67°26'54" W	1290.26'
AE15	N 02°44'08" W	1607.58'
AE16	S 87°02'55" W	1802.00'
AE17	N 04°10'03" W	20.00'
AE18	N 87°02'55" E	1822.50'

NOTES REGARDING SCHEDULE B OF REFERENCED TITLE COMMITMENT

G. Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:
Granted to: The Texas Company
Purpose: Pipeline right-of-way easement
Recording No: Volume 45, Page 315 of the Deed Records of Montgomery County, Texas
NO PIPELINE MARKERS APPARENT AT THE TIME OF SURVEY
H. Terms, conditions and stipulations contained in that certain roadway easements as set out in instrument filed under Montgomery County Clerk's File No. 2006-065668.
DOES NOT AFFECT 232.87 ACRE TRACT OR 5.12 ACRE TRACT
I. Terms, conditions and stipulations contained in that certain roadway easement as set out in instrument under Montgomery County Clerk's File No. 2002-072338.
DOES NOT AFFECT 232.87 ACRE TRACT OR 5.12 ACRE TRACT
J. Terms, conditions and stipulations contained in that certain 30 foot roadway easement as set out in instrument filed under Montgomery County Clerk's File No. 2002-072337.
DOES NOT AFFECT 232.87 ACRE TRACT OR 5.12 ACRE TRACT
K. Terms, conditions and stipulations contained in that certain 60 foot access easement as set out in instrument filed under Montgomery County Clerk's File No. 2004-133761
DOES NOT AFFECT 232.87 ACRE TRACT OR 5.12 ACRE TRACT
L. Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:
Granted to: Mid-South Electric Cooperative, Inc.
Purpose: Utility easement
Recording No: 9888830
DOES NOT AFFECT 232.87 ACRE TRACT OR 5.12 ACRE TRACT
M. Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:
Granted to: Mid-South Electric Cooperative, Inc.
Purpose: Utility easement
Recording No: 99076997
DOES NOT AFFECT 232.87 ACRE TRACT OR 5.12 ACRE TRACT
N. Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:
Granted to: Mid-South Electric Cooperative, Inc.
Purpose: Utility easement
Recording No: 2000-011353
DOES NOT AFFECT 232.87 ACRE TRACT OR 5.12 ACRE TRACT
O. Easement(s) for the purpose(s) shown below and rights incidental thereto as delineated or as offered for dedication, on the map of said tract/plat;
Purpose: Building set back line
Affects: 10 feet in width along the perimeter property lines
Recording No: 2004-085972
DOES NOT AFFECT 232.87 ACRE TRACT OR 5.12 ACRE TRACT
P. Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:
Granted to: Gulf States Utilities Company
Purpose: Utility easement
Recording No: Volume 288, Page 20 of the Deed Records of Montgomery County, Texas
DOES NOT AFFECT 232.87 ACRE TRACT OR 5.12 ACRE TRACT
Q. Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:
Granted to: Gulf States Utilities Company
Purpose: Utility easement
Recording No: Volume 695, Page 274 and Volume 695, Page 276 of the Deed Records of Montgomery County, Texas
DOES NOT AFFECT 232.87 ACRE TRACT OR 5.12 ACRE TRACT
R. Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:
Granted to: Diamond Shamrock Corporation
Purpose: Pipeline right-of-way
Recording No: Volume 735, Page 148 of the Deed Records of Montgomery County, Texas and amended under Montgomery County Clerk's File No. 9252829
DOES NOT AFFECT 232.87 ACRE TRACT OR 5.12 ACRE TRACT
S. Receipt for Damages executed by Reuben D. Simonton, IV, Individually and as Co-Trustee, et al and Diamond Shamrock Refining and Marketing Company as set out in instrument filed under Montgomery County Clerk's File No(s). 9252827 and 9252828.
DOES NOT AFFECT 232.87 ACRE TRACT OR 5.12 ACRE TRACT
T. Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:
Granted to: Diamond Shamrock Corporation
Purpose: Pipeline right-of-way
Recording No: Volume 735, Page 158 of the Deed Records of Montgomery County, Texas and amended under Montgomery County Clerk's File No. 9252826
DOES NOT AFFECT 232.87 ACRE TRACT OR 5.12 ACRE TRACT
U. A portion of a 20 foot access easement traversing subject property as reserved in Surface Use Agreement and Drill Site Designation between R. D. Simonton, IV and wife Marilyn Thornberry Simontonand IQ2, LP dated November 19, 2004, as set out in instrument filed under Montgomery County Clerk'sFile No. 2004-133762.
DOES NOT AFFECT 232.87 ACRE TRACT OR 5.12 ACRE TRACT
II. Terms, conditions and stipulations contained in that certain Surface Use Agreement and Drill Site Designation as set out under Montgomery County Clerk's File No. 2004-133763.
DOES NOT AFFECT 232.87 ACRE TRACT OR 5.12 ACRE TRACT
RR. Terms, conditions and stipulations contained in that certain Affidavit as to on-site wastewater treatment system as set out in instrument filed under Montgomery County Clerk's File No(s). 2000-014370, 2000-046998 and 2001-013358.
DOES NOT AFFECT 232.87 ACRE TRACT OR 5.12 ACRE TRACT

LINE & SYMBOL LEGEND
1) IRF= IRON ROD FOUND
2) IRS= IRON ROD SET, CAPPED "SURVTECH"
3) D.R.M.C.TX= DEED RECORDS OF MONTGOMERY COUNTY TEXAS
4) M.R.M.C.TX= MAP RECORDS OF MONTGOMERY COUNTY TEXAS
5) BL= BUILDING LINE
6) UE= UTILITY EASEMENT

THIS SURVEY IS BEING CERTIFIED TO THE RECIPIENTS NAMED ABOVE AND NO LICENSE OR CERTIFICATION HAS BEEN CREATED EXCEPT IN CONJUNCTION WITH THE ORIGINAL TRANSACTION,WHICH SHALL TAKE PLACE WITHIN NINETY (90) DAYS FROM THE DATE OF THE SURVEY AS SHOWN ABOVE.

UHL FITZSIMONS

4040 Broadway, Suite 430
San Antonio, Texas 78209
T 210.829.1660
F 210.829.1641
ufjbwlaw.com

April 16, 2020

Delta Land Services, L.L.C.
Attn: Winship Songy
1090 Cinclare Drive
Port Allen, Louisiana 70767

Via Email: winship@deltaland-services.com

Re: **Summary of Title Matters** for that certain approximately 232.87-acre tract more particularly described on Exhibit "A" attached to this letter, which is located in Montgomery County, Texas (the "**Property**").

Dear Mr. Songy:

As requested, we reviewed the following documents (collectively, the "**Title Documents**") in preparation of this Summary of Title Matters:

(i) The Commitment for Title Insurance issued by Alamo Title Insurance effectively dated March 16, 2020, at 8:00 AM, under GF No. sat-41-4000411800323-CV pertaining to the Property (the "**Title Commitment**"); and

(ii) That certain survey of the Property dated July 10, 2018, prepared by Steven E. Laughlin, R.P.L.S. No. 5178 (the "**Survey**").

The Title Commitment reflects that, as of March 16, 2020, at 8:00 AM, the Property is owned in fee simple by the Jacobs 2012 Descendants Trust. According to the Title Documents, the Property is free from mortgages, liens, encumbrances or defects, except the following, all of which are either recorded in the public records of Montgomery County, Texas, or are disclosed by the Survey:

1. Deed of Trust dated July 30, 2014, executed by Larry Don Jacobs and Beverley S. Jacobs, as Co-Trustees of the Jacobs 2012 Descendants Trust, securing the payment of one promissory note of even date in the original principal sum of $965,000.00, payable to the order of Ben R. Novosad, Trustee for the benefit of Capital Farm Credit, FLCA, which deed of trust is recorded as of August 1, 2014 under Clerk's File No. 2014074532, of the Official Public Records of Montgomery County, Texas; as affected by that certain Subordination Agreement dated November 15, 2018, and recorded under Clerk's File No. 2018110899 of the Official Public Records of Montgomery County, Texas.

2. Deed of Trust dated February 17, 2016, executed by Larry Don Jacobs and Beverley S. Jacobs, as Co-Trustees of the Jacobs 2012 Descendants Trust, securing the payment of one promissory note of even date in the original principal sum of $360,000.00, payable to the order of Ben R.

Novosad, Trustee for the benefit of Capital Farm Credit, FLCA, which deed of trust is recorded as of February 18, 2016 under Clerk's File No. 2016013474, of the Official Public Records of Montgomery County, Texas; as affected by that certain Subordination Agreement dated November 15, 2018, and recorded under Clerk's File No. 2018110899, of the Official Public Records of Montgomery County, Texas.

3. Pipeline right-of-way easement recorded in Volume 45, Page 315, of the Deed Records of Montgomery County, Texas.

4. Conservation Easement recorded under Clerk's File No. 2018110686, of the Official Public Records of Montgomery County, Texas.

5. Access Easement Agreement recorded under Clerk's File No. 2018110897, of the Official Public Records of Montgomery County, Texas.

6. Conservation Easement Amendment recorded under Clerk's File No. 2019046744, of the Official Public Records of Montgomery County, Texas.

7. All leases, grants, exceptions or reservations of coal, lignite, oil, gas and other minerals, together with all rights, privileges, and immunities relating thereto, that affect the Property, appearing in the Public Records of Montgomery County, Texas.

8. Fence line slightly deviates from the western boundary line of the Property.

As stated above, our review was based solely on, and is therefore limited to, the information contained in the Title Documents. The Property may be encumbered by other matters that have either arisen after March 16, 2020, or affected the Property before that date and yet were not disclosed in the Title Commitment. Those matters may include:

a. Encumbrances, encroachments, boundary line disputes or other matters that would be reflected by a current on-the-ground survey of the Property;

b. Rights or claims of parties in possession of the Property not shown by the public records;

c. Any lien, or right to a lien, for services, labor, or materials furnished in the past or in the future, imposed by law, and not shown by the public records;

d. The exercise of governmental zoning authority;

e. The results or consequences of any fraudulent statements or acts, or acts of forgery, in any way related to ownership of or title to the Property;

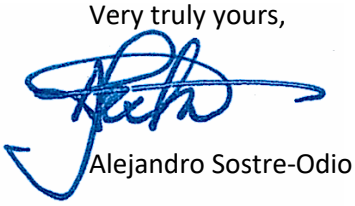
f. Any claim which may be asserted by the State of Texas or any other governmental authority to any part of the Property as being part of the bottom, bed, or bank of a navigable body of water;

g. The results of an involuntary or voluntary filing of a petition for bankruptcy by any current, former, or future owner of the Property; or

h. Any other matter which is not reflected in the Title Documents.

Should you have any questions or comments about this matter, please give me a call.

Very truly yours,



Alejandro Sostre-Odio

cc: Burt Brumfield, Delta Land Services, L.L.C. (Via Email)

EXHIBIT "A"
Property

232.87 ACRES
A WHITE SURVEY ABSTRACT 43 & THE W LANDRUM SURVEY ABSTRACT 21
MONTGOMERY COUNTY TEXAS

BEING a 232.87 acre tract of land in the A White Survey, Abstract 43, and the W Landrum Survey , Abstract 21, Montgomery County, Texas, being out of a called 46.53 acre tract of land, a called 50.788 acre tract of land and a called 140.42 acre tract of land all recorded in Montgomery County Clerk's File No. 2006-089421, also being out of a called 687.35 acre tract of land as recorded in Montgomery County Clerk's File No. 99066174. Said 232.87 acre tract being more particularly described as follows;

BEGINNING at 1/2" iron rod found on the easterly Right of Way of The Trinity and Brazos Valley Railroad Co. Right of Way, also being the southwesterly corner of Woods Tract as recorded in Volume 535, Page 128 of the Deed Records of Montgomery County Texas also being the northwesterly corner of the said 46.53 acre tract;

THENCE S 89deg 31'48" E a distance of 1506.99 feet along the northerly line of the said 46.53 acre tract to a 5/8" iron rod set at fence corner for the northeasterly corner of the said 46.53 acre tract and the northwesterly corner of the said 140.42 acre tract and being an angle point of the herein described tract;

THENCE N 87deg 02'55" E a distance of 1370.52 feet along the northerly line of the said 140.42 to a 5/8" iron rod set for the northeasterly corner of the herein described tract;

THENCE across the said 140.42 acre tract and the said 687.53 acre tract the following:

THENCE S 04deg 10'03" E a distance of 1181.15 feet to a 5/8" iron rod set for corner;
THENCE N 86deg 00'05" E a distance of 633.25 feet to a 5/8" iron rod set for corner;
THENCE S 05deg 58'57" W a distance of 753.93 feet to a 5/8" iron rod set for corner;
THENCE S 86deg 56'04" W a distance of 727.78 feet to a 5/8" iron rod set for corner;
THENCE S 05deg 03'43" E a distance of 2182.02 feet to a 5/8" iron rod set for corner;
THENCE N 84deg 41'44" W a distance of 201.99 feet to a 5/8" iron rod set for corner;

THENCE S 20deg 07'40" W a distance of 144.53 feet to a 5/8" iron rod set for corner in the southerly line of the said 687.35 acre tract also being on the northerly line of a called 603.616 acre tract of land as recorded in Montgomery County Clerk's File No. 8148116 and being the southeasterly corner of the herein described tract;

THENCE S 86deg 33'19" W a distance of 1028.53 feet to a 5/8" iron rod set at fence corner for the northwesterly corner of a called 18.14 acre tract of land as recorded in Montgomery County Clerk's File No. 8748070 and being the southwesterly corner of the herein described tract;

THENCE N 02deg 39'54" W a distance of 1342.15 feet along the easterly line of a called 77.8386 acre tract of land as recorded in Montgomery County Clerk's File No. 2007-032921 and a called 50.00 acre tract of land as recorded in Montgomery County Clerk's File No. 99096136 to a point for corner of the herein described tract;

THENCE S 87deg 35'14" W a distance of 1411.19 feet, (passing at 19.53 feet a ½" iron rod found for reference) along the northerly line of the said 50.00 acre tract to a 5/8" iron rod set at fence corner for the southwesterly corner of the herein described tract

THENCE N 02deg 31'43" W a distance of 1556.51 along the upper easterly line of the said 50.00 acre tract to a ½" iron rod found for the northeasterly corner of the said 50.00 acre tract and the northwesterly corner of the said 50.788 acre tract and being an angle point of the herein described tract;

THENCE S 87deg 40'21" W a distance of 120.90 feet along the northerly line of the said 50.00 acre tract, to a point 50' from the centerline of the Railroad and being the southwesterly corner of the said 46.53 acre tract and being an angle point of the herein described tract;

THENCE along the easterly Railroad Right of Way the following:

THENCE N 02deg 06'03" W a distance of 856.15 feet to a point for corner;

THENCE N 85deg 37'57" E a distance of 10.58 feet to a point for corner;

THENCE N 02deg 11'16" W a distance of 529.37 feet to the **POINT OF BEGINNING**, and containing 232.87 acres of land, more or less.

SCHEDULE A

Effective Date: March 16, 2020 at 8:00 AM
Commitment No.: 4000411800323

GF No.: sat-41-4000411800323-CV
Issued: March 25, 2020 at 8:00 AM

1. The policy or policies to be issued are:
   a. OWNER'S POLICY OF TITLE INSURANCE (Form T-1)
   (Not applicable for improved one-to-four family residential real estate)
   Policy Amount: $To Be Determined
   PROPOSED INSURED: Delta Land Services

   b. TEXAS RESIDENTIAL OWNER'S POLICY OF TITLE INSURANCE
   ONE-TO-FOUR FAMILY RESIDENCES (Form T-1R)
   Policy Amount:
   PROPOSED INSURED:

   c. LOAN POLICY OF TITLE INSURANCE (Form T-2)
   Policy Amount:
   PROPOSED INSURED:
   Proposed Borrower:

   d. TEXAS SHORT FORM RESIDENTIAL LOAN POLICY OF TITLE INSURANCE (Form T-2R)
   Policy Amount:
   PROPOSED INSURED:
   Proposed Borrower:

   e. LOAN TITLE POLICY BINDER ON INTERIM CONSTRUCTION LOAN (Form T-13)
   Policy Amount:
   PROPOSED INSURED:
   Proposed Borrower:

   f. OTHER
   Policy Amount:
   PROPOSED INSURED:

2. The interest in the land covered by this Commitment is:

   Fee Simple (As to Tracts 1, 2, 3 and 4)

   Easement Estate (as to Tracts 5, 6 and 7)

3. Record title to the land on the Effective Date appears to be vested in:

   THE JACOBS 2012 DESCENDANTS TRUST

SCHEDULE A
(continued)

4. Legal description of land:

TRACT 1: Part of 232.87-acre tract described in 7/10/18 survey

Being 46.53 acres of land in the Ann White Survey A-43, Montgomery County, Texas being a part of a called 48.17 acre tract awarded to Valda Wood and Edna Jackson, D. C. M, Case No. 21,273: also Volume 535, Page 128, Deed Records: found to be part of excess within the original Ned Jackson 201 acre tract, Volume 34, Page 126, Deed Records: more fully described as follows;

Beginning at an iron rod for the Northwest Corner of the Valda Wood 140.42 acre tract (called 140.085 acre tract, Volume 535, Page 134, Deed Records) same being the Southwest Corner of the Jackson 63.6 acre tract Volume 535, Page 132, Deed Records;

THENCE: S 01 ° 34' 30" W. 1287.6 feet to a point for the Northeast Corner of the Wood 50.788 acne tract, from which an iron rod brs. N 88 ° 58' 41" W. 41.6 feet;

THENCE: along the Wood (called 50.00 acre North Line) N 88 ° 58' 41" W. 1408.3 fret to a 34" iron pipe and N 87 ° 57' 36" W. 121.8 feet to an iron rod in the East Line of the Rock Island Railroad 50.0 feet from its Centerline;

THENCE: N 02 ° 16' E. 850.0 feet to widening of Railroad R.O.W.;

THENCE: East, 10.0 feet to a point for Corner;

THENCE: N 02 ° 16' E. 529.9 feet to an iron rod set in the Railroad R.O.W., 60.0 feet from its Center- line;

THENCE: S 85 ° 23' 29" E. 1505.5 feet to the PLACE OF BEGINNING, containing 46.53 acres of land. NOTE: This Company does not represent that the above acreage or square footage calculations are correct.

TRACT 2: Part of 232.87-acre tract described in 7/10/18 survey

Being 140.42 acres of land in the William Landrum Survey A-21, Montgomery County, Texas and being the same tract awarded to Valda Wood (called 140.085 acres) as a result of D. C. M. Partition Suit Case No. 21,273: also recorded in Volume 535, Page 134, Deed Records: more fully described as follows;

BEGINNING: at an iron rod for the Wood Northwest Corner, same being the Southwest Corner of the Edna Jackson 63.6 acre tract;

THENCE: S 01 ° 34' 30" W. 1916.55 feet to a 3\4" iron pipe found for the Northwest Corner of the Jacobs et al tract;

THENCE: S 88 ° 38' 10" E. along the Wood South Line and Jacobs North Line, 3192.2 feet to a 1 " iron pipe found for the Jacobs re-entrant Corner, (County Clerk's file No. 9748030);

THENCE: N 01 ° 42' 53" E. 1913.0 feet to a 1" iron pipe found in the South Line of the Edna Jackson 63.6 acre tract (Volume 535, Page 132, Deed Records);

THENCE: N 88 ° 34' 17" W. 3196.8 feet to the PLACE OF BEGINNING, containing 140.42 acres of land .

TRACT 3: Part of 232.87-acre tract described in 7/10/18 survey

Being 50.788 acres of land in the Ann White Survey A-43, Montgomery County, Texas: being the same tract called 50.0 acres conveyed by Stith Price to W. B. Wood recorded in Volume 17, Page 609, Deed

SCHEDULE A
(continued)

Records: more fully described as follows;

BEGINNING: at the Northeast Corner, a point in the Wood 140.42 acre tract West Line from which an iron rod brs. N 88 ° 58' 41" W. 41.6 feet;

THENCE: N 88 ° 58' 41" W. 1408.3 feet to a 3/4" iron pipe found for the Charles White Northeast Corner;

THENCE: S 01 ° 49' 27" W. 1557.3 feet to an iron pipe found;

THENCE: S 88 ° 05' 44" E. 1412.3 feet to a point in Mitchell Lake from which an Iron stake brs. N 88 ° 05' 44" W. 187.7 feet;

THENCE: N 01 ° 44' 20" E. 949.8 feet to a 3/4" iron pipe found for the Jacobs et al most Westerly Southwest Corner;

THENCE: N 01 ° 34' 30" E. 629.2 feet to the PLACE OF BEGINNING containing 50.788 acres of land.

NOTE: This Company does not represent that the above acreage or square footage calculations are correct.

TRACT 4: Outside of 232.87-acre tract

Being 7.500 acres of land, situated In the William Landrum Survey, Abstract Number 21 In Montgomery County, Texas and being out of the Larry D. Jacobs and Beverly S. Jacobs 24.627 acres as described In Deed recorded under Clerk's File Number 2000-107087 of the Real Property Records; said 7.500 acres being more particularly described by metes and bounds as follows with all bearings referenced to the East line of the 24.627 acre tract and West line of the Tyler Jacobs 20.202 acres as described under Clerk's File Number 2003-155880 of the Real Property Records:

BEGINNING at a 1/2 Inch Iron rod, found for the Northeast corner of the 24.827 acre tract and being In the West line of the 20.202 acre tract and being a Southeast comer of the Larry D. Jacobs 13.18 acres as described under Clerk's File Number 2005-105892 of the Real Property Records;

THENCE with the following courses and distances along the center of a 60-foot wide road easement:

South 24 degrees 41 minutes 52 seconds West, a distance of 180.61 feet to an angle point;

South 12 degrees 55 minutes 28 seconds West, a distance of 429.99 feet to an angle point;

South 08 degrees 53 minutes 00 seconds West, a distance of 375.93 feet to a point for the beginning of a curve to the
right, having as Its elements: a central angle of 28 degrees 35 minutes 18 seconds, a radius of 195.00 feet, an arc length of 97.30 feet and a chord bearing South 23 degrees 10 minutes-39 seconds West, 96.29 feet to a tangent point;

South 37 degrees 28 minutes 18 seconds West, a distance of 102.84 feet to a point for the beginning of a curve to the left, having as its elements: a central angle of 107 degrees 38 minutes 11 seconds, a radius of 127.00 feet, an arc length of 238.58 feet and a chord bearing South 18 degrees 20 minutes 48 seconds East, 205.02 feet to a 5/8 Inch Iron rod with a survey cap marked Glezman, RPLS 4827", set for the most Southerly Northeast corner of the herein described tract;

THENCE South 23 degrees 12 minutes 52 seconds West, passing at 30.04 feet, a point for the Southwest line of the 80 foot road easement; In all, a distance of 240.87 feet to a 5/8 inch Iron rod with a survey cap, set for the most Southerly Southeast comer of the herein described tract in the South line of the 24.827

SCHEDULE A
(continued)

acre tract;

THENCE North 89 degrees 58 minutes 07 seconds West, passing at 113.45 feet, along the South line of the herein described tract, also being the South line of the 24.827 acre tract to a 5/8 inch iron rod with survey cap stamped "Glezman RPLS 4827", set for the most Westerly South corner of the herein described tract and an interior corner for a 138 acre tract conveyed to Larry Jacobs as described under Clerk's File Number 2000-055452 of the Real Property Records;

THENCE North 22 degrees 08 minutes 51 seconds West, a distance of 480.06 feet along the Southwest line of the 24.627-acre tract to a 5/8-inch iron rod with survey cap, set for the West corner of the herein described tract;

THENCE North 27 degrees 52 minutes 01 seconds East, a distance of 1280.87 feet, severing the 24.627 acre tract to the Northwest corner of the herein described tract, In the North line of the 24.827 acre tract, in the South line of the Jacobs 13.18 acres as described under Clerk's File Number 2005-105892 of the Real Property Records;

THENCE North 88 degrees 13 minutes 55 seconds East, a distance of 84.98 feet along the North line of the 24.627 acre tract, back to the Point of Beginning and containing 7.500 acres of land.

TRACT 5: (Easement) Part of access easement tracts

Being a 60 foot wide access easement situated In the Wm. Landrum Survey Abstract Number 21 In Montgomery County, Texas and being out of and a part of the Larry D. Jacobs 13.18 acre tract as described under Clerk's File Number 2005-105092 of the Reel Properly Records, the Tyler Jacobs 20.202 acres as described under Clerk's File Number 2003-155880, the Larry D. Jacobs residual area out of 136 acres as described under Clerk's File Number. 2000-068482 of the Real Property Records, and the Larry D. Jacobs and wife, Beverly S. Jacobs 24.827 acres as described under Clerk's File Number 2000-107087 of the Real Property Records; said access easement being more particularly described by metes and bounds as follows with all bearings referenced to the East line of the Tyler Jacobs 20.202 acre tact.

BEGINNING at a 1/2 inch iron rod, found at the North corner of the Tyler Jacobs 20.202 acre tract, being the Northwest corner of the IQ2, LP 360.204 acres as described under Clerk's File Number 2004-133762 of the Real Property Records, the Southwest corner of the Thomas E. Matchett 17.6 acres as described under Clerk's File Number 2003-000050 of the Real Property Records, the Southeast corner of the Jacobs 13.18 acre tract, and being a center point of that certain 60 Foot Non-exclusive Access described under Clerk's File Number 2009-069309 and 2004-133761 of the Real Property Records and further referenced as Buffalo Ridge Road:

THENCE South 01 degrees 28 minutes 26 seconds West, a distance of 3047 feet along the East line of the 20.202 acre tract and West line of the 360.204 acre tract to a point for the most Northerly Southeast corner of the herein described easement:

THENCE along the Southeasterly line of the herein described easement with the following courses and distances:

South 81 degrees 19 minutes 03 seconds West, a distance of 160.70 feet to on angle point;

South 44 degrees 68 minutes 00 seconds West, a distance of 322.34 feet to an angle point;

South 34 degrees 18 minutes 00 seconds West, a distance of 119.32 feet to an angle point;

SCHEDULE A
(continued)

South 19 degrees 31 minutes 31 seconds West, a distance of 240.93 feet to an angle point:

South 24 degrees 41 minutes 52 seconds West, a distance of 178.87 feet to an angle point;

South 12 degrees 55 minutes 28 seconds West, a distance of 425.64 feet to an angle point;

South 08 degrees 53 minutes 00 seconds West, a distance of 374.87 feet to a point for the beginning of a curve to the right, having as its elements: a central angle of 28 degrees 35 minutes 10 seconds, a radius of 225.00 feet, an arc length of 112.27 feet and a chord bearing South 23 degrees 10 minutes 39 seconds West, i11.10 feet to a tangent point;

South 37 degrees 28 minutes 18 seconds West, a distance of 102.84 feet to a point for the beginning of a curve to the left, having as Its elements: a central angle of 108 degrees 41 minutes 00 seconds, a radius of 97.00 feet. an are length of 184.00 feet and a chord bearing South 18 degrees 52 minutes 12 seconds West. 157.83 feet to a tangent point;

South 77 degrees 44 minutes 31 seconds East, a distance of 41.21 feet to a point for the beginning of a curve to the right, having as its elements: a central angle of 48 degrees 46 minutes 42 seconds, a radius of 231.00 feet, an arc length of 188.83 feet and a chord bearing South 54 degrees 21 minutes 40 seconds East, 183.34 feet to a tangent point;

South 30 degrees 58 minutes 49 seconds East, a distance of 46.08 feet to a point for the most Southerly Northeast corner;

THENCE South 05 degrees 16 minutes 23 seconds East, a distance of 93.88 feet, severing the 24.627 acre tract to a 5/8 inch iron rod with a survey cap marked "Glezman, RPLS 4627", set for the most Southerly Southeast corner of the herein described easement and being in the South line of the 24.627 acre tract;

THENCE North 89 degrees 58 minutes 07 seconds West, a distance of 22.49 feet along the South line of the 34.627 acre tract to a point for the most Southwesterly corner of the herein described tract;

THENCE along the Southwesterly line of the herein described easement with the following courses and distances:

North 30 degrees 58 minutes 49 seconds West, a distance of 119,08 feet to a point for the beginning of a curve to the left, having as Its elements: a central angle of 46 degrees 45 minutes 42 seconds, a radius of 171.00 feet, an are length of 139.56 feet and a chord bearing North 54 degrees 21 minutes 40 seconds West, 135.72 feet to a point for tangent;

North 77 degrees 44 minutes 31 seconds West, a distance of 30.16 feet to a point for the beginning of a curve to the right, having as Its elements: a central angle of 115 degrees 12 minutes 48 seconds, a radius of 157.00 feet, an arc length of 315.70 feet and a chord bearing North 20 degrees 08 minutes 08 seconds West, 285.14 feet to a point for tangent;
North 37 degrees 28 minutes 18 seconds East, a distance of 102.64 feet to a point for the beginning of a curve to the left, having as its elements: a central angle of 28 degrees 35 minutes 18 seconds, a radius of 165.00 feet, an arc length of 82.33 feet and a chord bearing North 23 degrees 10 minutes 39 seconds East to a point for tangent;

North 08 degrees 53 minutes 00 seconds East, a distance of 378.99 feet to a point for angle;

North 12 degrees 55 minutes 28 seconds East, a distance of 434.14 feet to a point for angle;

North 24 degrees 41 minutes 52 seconds East, a distance of 182.34 feet to a point for angle:

SCHEDULE A
(continued)

North 19 degrees 31 minutes 31 seconds East, a distance of 245.99 feet to a point for angle;

North 34 degrees 16 minutes 00 seconds East, a distance of 132.86 feet to a point for angle;

North 44 degrees 56 minutes 00 seconds East, a distance of 347.68 feet to a point for angle;

North 81 degrees 09 minutes 03 seconds East, a distance of 170.18 feet to a point for angle;

North 50 degrees 10 minutes 44 seconds East, a distance of 12.62 feet to a point for the most North corner of the herein described tract in the West line of the Matchett 17.6 acre tract and being the Northwest corner of the aforementioned Buffalo Ridge Road 80 foot Non-exclusive Access;

THENCE South 01 degrees 28 minutes 26 seconds West, a distance of 35.10 feet back to the Point of beginning.

TRACT 6: (Easement) Part of access easement tracts

Being a non-exclusive ingress and egress easement out of the William Landrum Survey A-21, Montgomery County, Texas and a part of the R. D. Simonton 223.86 acre tract described in a partition County Clerk's File No. 9779765, Real Property Records; also a part of a called 190.0 acre tract conveyed to R. D. Simonton as recorded in Volume 269, Page 594, Deed Records; being a strip of land 60 foot wide and 30 feet on either side of the following described centerlines

BEGINNING at an iron rod set in the South line of Gay Lane, being N. 88 ° 05' W. 30.0 feet, from the Simonton lower Northeast corner, same being the Northwest corner of the W. F. Griffin 80.0 acre tract;

THENCE: along the centerline of 60 foot wide stop the following:

(1) S. 01 ° 55' S. 50.0 feet

(2) N. 81 ° 18' W. 31.8 feet

(3) S. 42 ° 32' W. 286.6 feet

(4) S. 80 ° 39' W. 197.0 feet

(5) S. 42 ° 29' W. 239.0 feet

(6) S. 16 ° 40' W. 122.0 feet

(7) S. 28 ° 21' W. 114.0 feet

(8) S. 38 ° 30' W. 303.0 feet

(9) S. 30 ° 08' W. 281.0 feet

(10) S. 59 ° 31' W. 270.0 feet

(11) S. 54 ° 02' W. 354.0 feet

(12) S. 61 ° 57' W. 373.0 feet

SCHEDULE A
(continued)

(13) S. 12 ° 34' W. 155.0 feet

(14) S. 60 ° 10' 23" W. 466.2 feet to a point in the West line of the Simonton 190.0 acre tract same being in the East line of the Larry Jacobs et al East line of 687.35 acre tract, County Clerk's File No. 9748030, Real Property Records, being S. 01 ° 26' 25" W. 355.0 feet from a lower Northeast corner, containing 4.5 acres of land, more or less SAVE AND EXCEPT all of that portion of the above described 4.5 acre tract lying East of the Easterly line of the 60 foot access easement described as Tract Four.

TRACT 7: (Easement) Part of access easement tracts

Being a 60 foot wide access easement encompassing 0.510 acres of land, situated in the William Landrum Survey, Abstract Number 21 in Montgomery County, Texas and being out of the Ruben Simonton 223.86 acres as described under Clerk's File Number 9779765 of the Real Property Records of Montgomery County, Texas; said 0.510 acres being more particularity described by metes and bounds as follows with al bearings referenced to the West line of the 190 acre and the East tine of the Larry D. Jacobs 687.35 acres as described under Clerk's File Number 99066174 of the Real Property Records of Montgomery County, Texas:

COMMENCING at the Northerly Northwest corner of the 223.88 acre tract at the Northeast comer of the Suzanne Davis 10.4 acres as described under Clerk's File Number 2004-086972 of the Real Property Records of Montgomery County, Texas, in the Southwesterly line of the Pierre Mulack tract described under Clerk's File Number 2003-007294 of the Real Property Records of Montgomery County, Texas, and being in the center of Gay Lake Lane, a county maintained prescriptive right of way;

THENCE South 82 ° 41' 01" East, a distance, of 854.39 feet along the centerline of Gay Lake Lane to a PK nail, set for the Northeast comer and the POINT OF BEGINNING of the herein described access easement, In the centerline of Gay Lake Lane;

THENCE South 32 ° 38' 48" West leaving the centerline of Gay Lake Lane and along the East One of the herein described access easement, a distance of 387.41 feet to a to a point for the Southeast comer of the herein described access easement; said point being In a Northerly line of a 60 foot access easement as described under Clerk's File Number 99089309 of the Real Property Records of Montgomery County, Texas;

THENCE South 80 ° 39' 00" West, following along a Northerly line of the aforementioned 80 foot access easement, a distance of 80.73 feet to a point for the Southwest comer of the herein described tract;

THENCE North 32 ° 38' 48" West, leaving the Northerly line of the aforementioned 60 foot access easement, a distance of 383.03 feet to a point for the North corner of the herein described tract being in the centerline of Gay Lake Lane;

THENCE South 82 ° 41' 01" East, following along the centerline of Gay Lake Lane, a distance of 56.38 feet back to the Point of Beginning of a 60 foot wide access easement, encompassing 0.510 acres of land.

Note: The Company is prohibited from insuring the area or quantity of the Land. Any statement in the legal description contained in Schedule A as to area or quantity of land is not a representation that such area or quantity is correct but is for informal identification purposes and does not override Item 2 of Schedule B hereof.

END OF SCHEDULE A

SCHEDULE B
EXCEPTIONS FROM COVERAGE

Commitment No.: 4000411800323 GF No.: sat-41-4000411800323-CV

In addition to the Exclusions and Conditions and Stipulations, your Policy will not cover loss, costs, attorney's fees, and expenses resulting from:

1. The following restrictive covenants of record itemized below (We must either insert specific recording data or delete this exception):

Doesn't affect 232.87ac

Those recorded under Montgomery County Clerk's File No(s). 2002-126300 and 2004-085972 (As to Tract 6)

Omitting any covenants or restrictions, if any, including but not limited to those based upon race, color, religion, sex, sexual orientation, familial status, marital status, disability, handicap, national origin, ancestry, or source of income, as set forth in applicable state or federal laws, except to the extent that said covenant or restriction is permitted by applicable law.

2. Any discrepancies, conflicts, or shortages in area or boundary lines, or any encroachments or protrusions, or any overlapping of improvements.

3. Homestead or community property or survivorship rights, if any of any spouse of any insured.

(Applies to the Owner Policy only.)

4. Any title or rights asserted by anyone, including, but not limited to, persons, the public, corporations, governments or other entities,

a. to tidelands, or lands comprising the shores or beds or navigable or perennial rivers and streams, lakes, bays, gulfs or oceans, or

b. to lands beyond the line of the harbor or bulkhead lines as established or changed by any government, or

c. to filled-in lands, or artificial islands, or

d. to statutory water rights, including riparian rights, or

e. to the area extending from the line of mean low tide to the line of vegetation, or the rights of access to that area or easement along and across that area.

(Applies to the Owner Policy only.)

5. Standby fees, taxes and assessments by any taxing authority for the year 2020 and subsequent years; and subsequent taxes and assessments by any taxing authority for prior years due to change in land usage or ownership; but not those taxes or assessments for prior years because of an exemption granted to a previous owner of the property under Section 11.13, Texas Tax Code, or because of improvements not assessed for a previous tax years. (If Texas Short Form Residential Mortgagee Policy of Title Insurance (T-2R) is issued, that policy will substitute "which become due and payable subsequent to Date of Policy" in lieu of "for the year 2020 and subsequent years.")

6. The terms and conditions of the documents creating your interest in the land.

7. Materials furnished or labor performed in connection with planned construction before signing and delivering the lien document described in Schedule A, if the land is part of the homestead of the owner. (Applies to the Mortgagee Title Policy Binder on Interim Construction Loan only, and may be deleted if satisfactory evidence is furnished to us before a binder is issued.)

SCHEDULE B
EXCEPTIONS FROM COVERAGE
(continued)

8. Liens and leases that affect the title to the land, but that are subordinate to the lien of the insured mortgage.

   (Applies to Mortgagee Policy (T-2) only.)

9. The Exceptions from Coverage and Express Insurance in Schedule B of the Texas Short Form Residential Mortgagee Policy of Title Insurance (T-2R). (Applies to Texas Short Form Residential Mortgagee Policy of Title Insurance (T-2R) only. Separate exceptions 1 through 8 of this Schedule B do not apply to the Texas Short Form Residential Mortgagee Policy of Title Insurance (T-2R).

10. The following matters and all terms of the documents creating or offering evidence of the matters (We must insert matters or delete this exception):

    a. All leases, grants, exceptions or reservations of coal, lignite, oil, gas and other minerals, together with all rights, privileges, and immunities relating thereto, appearing in the Public Records whether listed in Schedule B or not. There may be leases, grants, exceptions or reservations of mineral interest that are not listed.

    b. Those liens created at closing, if any, pursuant to lender instructions.

    c. Rights of parties in possession.

    d. Rights of tenants in possession, as tenants only, under unrecorded lease agreements.

    e. Visible or apparent easement(s) and/or rights of way on, over, under or across the Land.

    f. If any portion of the proposed loan and/or the Owner's Title Policy coverage amount includes funds for immediately contemplated improvements, the following exceptions will appear in Schedule B of any policy issued as indicated:

       Owner and Loan Policy(ies): Any and all liens arising by reason of unpaid bills or claims for work performed or materials furnished in connection with improvements placed, or to be placed, upon the subject land. However, the Company does insure the insured against loss, if any, sustained by the Insured under this policy if such liens have been filed with the County Clerk of County, Texas, prior to the date hereof.

       Owner Policy(ies) Only: Liability hereunder at the date hereof is limited to $ 0.00. Liability shall increase as contemplated improvements are made, so that any loss payable hereunder shall be limited to said sum plus the amount actually expended by the insured in improvements at the time the loss occurs. Any expenditures made for improvements, subsequent to the date of this policy, will be deemed made as of the date of this policy. In no event shall the liability of the Company hereunder exceed the face amount of this policy. Nothing contained in this paragraph shall be construed as limiting any exception or any printed provision of this policy.

       Loan Policy(ies) Only: Pending disbursement of the full proceeds of the loan secured by the lien instrument set forth under Schedule A hereof, this policy insures only to the extent of the amount actually disbursed, but increase as each disbursement is made in good faith and without knowledge of any defect in, or objections to, the title up to the face amount of the policy. Nothing contained in this paragraph shall be construed as limiting any exception under Schedule B, or any printed provision of this policy.

    g. The following exception will appear in any policy issued (other than the T-1R Residential Owner Policy of Title Insurance and the T-2R Short-Form Residential Mortgagee Policy) if the Company is not provided a survey of the Land, acceptable to the Company, for review at or prior to closing:

SCHEDULE B
EXCEPTIONS FROM COVERAGE
(continued)

Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the title that would be disclosed by an accurate and complete land survey of the Land.

h. Any portion of the Land located within the boundaries of any roadway or highway.

i. Easements and/or rights of way on or over the subject property, NOT shown by the public records that may be disclosed by a survey of subject property.

Affects 232.87ac

j. Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:

Granted to: The Texas Company
Purpose: Pipeline right-of-way easement
Recording No: Volume 45, Page 315 of the Deed Records of Montgomery County, Texas (As to Tract 1)

Doesn't affect 232.87ac

k. Terms, conditions and stipulations contained in that certain roadway easements as set out in instrument filed under Montgomery County Clerk's File No. 2006-065668. (As to Tracts 5 and 6)

Doesn't affect 232.87ac

l. Terms, conditions and stipulations contained in that certain 60 foot access easement over and across subject property as set out in instrument filed under Montgomery County Clerk's File No. 2002-078264. (As to Tract 4)

Doesn't affect 232.87ac

m. Terms, conditions and stipulations contained in that certain roadway easement as set out in instrument under Montgomery County Clerk's File No. 2002-072338. (As to Tract 5)

Doesn't affect 232.87ac

n. Terms, conditions and stipulations contained in that certain 30 foot roadway easement as set out in instrument filed under Montgomery County Clerk's File No. 2002-072337. (As to Tract 5)

Doesn't affect 232.87ac

o. Terms, conditions and stipulations contained in that certain 60 foot access easement as set out in instrument filed under Montgomery County Clerk's File No. 2004-133761 (As to Tracts 6 and 7)

Doesn't affect 232.87ac

p. Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:

Granted to: Mid-South Electric Cooperative, Inc.
Purpose: Utility easement
Recording No: 9888830 (As to Tracts 4 and 5)

Doesn't affect 232.87ac

q. Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:

Granted to: Mid-South Electric Cooperative, Inc.
Purpose: Utility easement
Recording No: 99076997 (As to Tracts 4 and 5)

Doesn't affect 232.87ac

r. Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:

Granted to: Mid-South Electric Cooperative, Inc.
Purpose: Utility easement
Recording No: 2000-011353 (As to Tracts 4 and 5)

Doesn't affect 232.87ac

s. Easement(s) for the purpose(s) shown below and rights incidental thereto as delineated or as offered for dedication, on the map of said tract/plat;

SCHEDULE B
EXCEPTIONS FROM COVERAGE
(continued)

Purpose: Building set back line
Affects: 10 feet in width along the perimeter property lines
Recording No: 2004-085972 (As to Tract 6)

Doesn't affect 232.87ac

t. Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:

Granted to: Gulf States Utilities Company
Purpose: Utility easement
Recording No: Volume 288, Page 20 of the Deed Records of Montgomery County, Texas (As to Tracts 6 and 7)

Doesn't affect 232.87ac

u. Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:

Granted to: Gulf States Utilities Company
Purpose: Utility easement
Recording No: Volume 695, Page 274 and Volume 695, Page 276 of the Deed Records of Montgomery County, Texas (As to Tracts 6 and 7)

Doesn't affect 232.87ac

v. Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:

Granted to: Diamond Shamrock Corporation
Purpose: Pipeline right-of-way
Recording No: Volume 735, Page 148 of the Deed Records of Montgomery County, Texas and amended under Montgomery County Clerk's File No. 9252829 (As to Tracts 6 and 7)

Doesn't affect 232.87ac

w. Receipt for Damages executed by Reuben D. Simonton, IV, Individually and as Co-Trustee, et al and Diamond Shamrock Refining and Marketing Company as set out in instrument filed under Montgomery County Clerk's File No(s). 9252827 and 9252828. (As to Tracts 6 and 7)

Doesn't affect 232.87ac

x. Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:

Granted to: Diamond Shamrock Corporation
Purpose: Pipeline right-of-way
Recording No: Volume 735, Page 158 of the Deed Records of Montgomery County, Texas and amended under Montgomery County Clerk's File No. 9252826 (As to Tracts 6 and 7)

Doesn't affect 232.87ac

y. A portion of a 20 foot access easement traversing subject property as reserved in Surface Use Agreement and Drill Site Designation between R. D. Simonton, IV and wife Marilyn Thornberry Simonton and IQ2, LP dated November 19, 2004, as set out in instrument filed under Montgomery County Clerk's File No. 2004-133762. (As to Tract 6)

Affects 232.87ac

z. Interest in and to all coal, lignite, oil, gas and other minerals, and all rights incident thereto, contained in instrument recorded/filed in Volume 452, Page 290 of the Deed Records of Montgomery County, Texas. Reference to which instrument is here made for particulars. No further search of title has been made as to the interest(s) evidenced by this instrument, and the Company makes no representation as to the ownership or holder of such interest(s). (As to Tracts 1 and 2)

Affects 232.87ac

aa. Interest in and to all coal, lignite, oil, gas and other minerals, and all rights incident thereto, contained in instrument recorded/filed in Volume 468, Page 634 of the Deed Records of Montgomery County, Texas. Reference to which instrument is here made for particulars. No further search of title has been made as to the interest(s) evidenced by this instrument, and the Company makes no representation as to the ownership or holder of such interest(s). (As to Tracts 1 and 2)

SCHEDULE B
EXCEPTIONS FROM COVERAGE
(continued)

Affects 232.87ac

ab. Interest in and to all coal, lignite, oil, gas and other minerals, and all rights incident thereto, contained in instrument recorded/filed in Volume 456, Page 185 of the Deed Records of Montgomery County, Texas. Reference to which instrument is here made for particulars. No further search of title has been made as to the interest(s) evidenced by this instrument, and the Company makes no representation as to the ownership or holder of such interest(s).As to Tracts 1 and 2)

Affects 232.87ac

ac. Interest in and to all coal, lignite, oil, gas and other minerals, and all rights incident thereto, contained in instrument recorded/filed in Volume 403, Page 381 of the Deed Records of Montgomery County, Texas. Reference to which instrument is here made for particulars. No further search of title has been made as to the interest(s) evidenced by this instrument, and the Company makes no representation as to the ownership or holder of such interest(s). (As to Tract 2)

Doesn't affect 232.87ac

ad. Interest in and to all coal, lignite, oil, gas and other minerals, and all rights incident thereto, contained in instrument recorded/filed in Volume 403, Page 381 of the Deed Records of Montgomery County, Texas. Reference to which instrument is here made for particulars. No further search of title has been made as to the interest(s) evidenced by this instrument, and the Company makes no representation as to the ownership or holder of such interest(s). (As to Tracts 4 and 5)

Doesn't affect 232.87ac

ae. Interest in and to all coal, lignite, oil, gas and other minerals, and all rights incident thereto, contained in instrument recorded/filed in Volume 456, Page 185 of the Deed Records of Montgomery County, Texas. Reference to which instrument is here made for particulars. No further search of title has been made as to the interest(s) evidenced by this instrument, and the Company makes no representation as to the ownership or holder of such interest(s). (As to Tracts 4 and 5)

Doesn't affect 232.87ac

af. Interest in and to all coal, lignite, oil, gas and other minerals, and all rights incident thereto, contained in instrument recorded/filed in Volume 1127, Page 646 of the Deed Records of Montgomery County, Texas. Reference to which instrument is here made for particulars. No further search of title has been made as to the interest(s) evidenced by this instrument, and the Company makes no representation as to the ownership or holder of such interest(s). (As to Tracts 4, 5, 6 and 7)

Doesn't affect 232.87ac

ag. Interest in and to all coal, lignite, oil, gas and other minerals, and all rights incident thereto, contained in instrument recorded/filed in Volume 1127, Page 652 of the Deed Records of Montgomery County, Texas. Reference to which instrument is here made for particulars. No further search of title has been made as to the interest(s) evidenced by this instrument, and the Company makes no representation as to the ownership or holder of such interest(s). (As to Tracts 4, 5, 6 and 7)

Doesn't affect 232.87ac

ah. Interest in and to all coal, lignite, oil, gas and other minerals, and all rights incident thereto, contained in instrument recorded/filed under Montgomery County Clerk's File No. 9748030. Reference to which instrument is here made for particulars. No further search of title has been made as to the interest(s) evidenced by this instrument, and the Company makes no representation as to the ownership or holder of such interest(s). (As to Tracts 4 and 5)

Doesn't affect 232.87ac

ai. Interest in and to all coal, lignite, oil, gas and other minerals, and all rights incident thereto, contained in instrument recorded/filed under Montgomery County Clerk's File No. 9748031. Reference to which instrument is here made for particulars. No further search of title has been made as to the interest(s) evidenced by this instrument, and the Company makes no representation as to the ownership or holder of such interest(s). (As to Tracts 4 and 5)

Doesn't affect 232.87ac

aj. Interest in and to all coal, lignite, oil, gas and other minerals, and all rights incident thereto, contained in instrument recorded/filed in Volume 198, Page 401 of the Deed Records of Montgomery County, Texas. Reference to which instrument is here made for particulars. No further search of title has been made as to the interest(s) evidenced by this instrument, and the Company makes no representation as to the

SCHEDULE B
EXCEPTIONS FROM COVERAGE
(continued)

ownership or holder of such interest(s). (As to Tracts 6 and 7)

Doesn't affect 232.87ac

ak. Interest in and to all coal, lignite, oil, gas and other minerals, and all rights incident thereto, contained in instrument recorded/filed in Volume 269, Page 594 of the Deed Records of Montgomery County, Texas. Reference to which instrument is here made for particulars. No further search of title has been made as to the interest(s) evidenced by this instrument, and the Company makes no representation as to the ownership or holder of such interest(s). (As to Tract 6)

Doesn't affect 232.87ac

al. Interest in and to all coal, lignite, oil, gas and other minerals, and all rights incident thereto, contained in instrument recorded/filed in Volume 949, Page 452 of the Deed Records of Montgomery County, Texas. Reference to which instrument is here made for particulars. No further search of title has been made as to the interest(s) evidenced by this instrument, and the Company makes no representation as to the ownership or holder of such interest(s). (As to Tracts 6 and 7)

Doesn't affect 232.87ac

am. Interest in and to all coal, lignite, oil, gas and other minerals, and all rights incident thereto, contained in instrument recorded/filed under Montgomery County Clerk's File No. 2000-091310. Reference to which instrument is here made for particulars. No further search of title has been made as to the interest(s) evidenced by this instrument, and the Company makes no representation as to the ownership or holder of such interest(s). (As to Tracts 6 and 7)

Doesn't affect 232.87ac

an. Interest in and to all coal, lignite, oil, gas and other minerals, and all rights incident thereto, contained in instrument recorded/filed under Montgomery County Clerk's File No. 2002-126300. Reference to which instrument is here made for particulars. No further search of title has been made as to the interest(s) evidenced by this instrument, and the Company makes no representation as to the ownership or holder of such interest(s). (As to Tract 6)

Doesn't affect 232.87ac

ao. Interest in and to all coal, lignite, oil, gas and other minerals, and all rights incident thereto, contained in instrument recorded/filed under Montgomery County Clerk's File No. 2004-133762. Reference to which instrument is here made for particulars. No further search of title has been made as to the interest(s) evidenced by this instrument, and the Company makes no representation as to the ownership or holder of such interest(s). (As to Tracts 6 and 7)

Doesn't affect 232.87ac

ap. Terms, conditions and stipulations contained in that certain Surface Use Agreement and Drill Site Designation as set out under Montgomery County Clerk's File No. 2004-133763. (As to Tracts 6 and 7

Affects 232.87ac

aq. Lease for coal, lignite, oil, gas or other minerals, together with rights incident thereto, recorded under Montgomery County Clerk's File No. 8107145. Reference to which instrument is here made for particulars. No further search of title has been made as to the interest(s) evidenced by this instrument, and the Company makes no representation as to the ownership or holder of such interest(s). (As to Tract 1)

Affects 232.87ac

ar. Lease for coal, lignite, oil, gas or other minerals, together with rights incident thereto, recorded under Montgomery County Clerk's File No. 8431829. Reference to which instrument is here made for particulars. No further search of title has been made as to the interest(s) evidenced by this instrument, and the Company makes no representation as to the ownership or holder of such interest(s). (As to Tract 1)

Affects 232.87ac

as. Lease for coal, lignite, oil, gas or other minerals, together with rights incident thereto, recorded under Montgomery County Clerk's File No. 8256414. Reference to which instrument is here made for particulars. No further search of title has been made as to the interest(s) evidenced by this instrument, and the Company makes no representation as to the ownership or holder of such interest(s). (As to Tract 2)

Affects 232.87ac

at. Lease for coal, lignite, oil, gas or other minerals, together with rights incident thereto, recorded under Montgomery County Clerk's File No. 8511184. Reference to which instrument is here made for particulars. No further search of title has been made as to the interest(s) evidenced by this instrument, and the

SCHEDULE B
EXCEPTIONS FROM COVERAGE
(continued)

Company makes no representation as to the ownership or holder of such interest(s). (As to Tract 2)

Affects 232.87ac

au. Lease for coal, lignite, oil, gas or other minerals, together with rights incident thereto, recorded under Montgomery County Clerk's File No. 8256413. Reference to which instrument is here made for particulars. No further search of title has been made as to the interest(s) evidenced by this instrument, and the Company makes no representation as to the ownership or holder of such interest(s). (As to Tract 3)

Doesn't affect 232.87ac

av. Lease for coal, lignite, oil, gas or other minerals, together with rights incident thereto, recorded under Montgomery County Clerk's File No(s). 8042840, 8101614, 8101615 and 8101616. Reference to which instrument is here made for particulars. No further search of title has been made as to the interest(s) evidenced by this instrument, and the Company makes no representation as to the ownership or holder of such interest(s). (As to Tract 5, 6 and 7)

Doesn't affect 232.87ac

aw. Lease for coal, lignite, oil, gas or other minerals, together with rights incident thereto, recorded under Montgomery County Clerk's File No. 8436636. Reference to which instrument is here made for particulars. No further search of title has been made as to the interest(s) evidenced by this instrument, and the Company makes no representation as to the ownership or holder of such interest(s). (As to Tracts 4 and 5)

Doesn't affect 232.87ac

ax. Terms, conditions and stipulations contained in that certain Affidavit as to on-site wastewater treatment system as set out in instrument filed under Montgomery County Clerk's File No(s). 2000-014370, 2000-046998 and 2001-013358. (As to Tracts 4 and 5)

Affects 232.87ac

ay. Terms, conditions and stipulations contained in that certain Conservation Easement, as set out in instrument filed under Montgomery County Clerk's File No(s). 2018110686.

Affects 232.87ac

az. Terms, conditions and stipulations contained in that certain Access Easement Agreement, as set out in instrument filed under Montgomery County Clerk's File No(s). 2018110897. Amendment to Access Easement Agreement, as set out in instrument filed under Montgomery County Clerk's File No(s). 2019046745.

Affects 232.87ac

ba. Terms, conditions and stipulations contained in that certain Conservation Easement, as set out in instructment filed under Montgomery County Clerk's File No(s). 2019046744.

SCHEDULE C

Commitment No.: 4000411800323 GF No.: sat-41-4000411800323-CV

Your Policy will not cover loss, costs, attorneys' fees, and expenses resulting from the following requirements that will appear as Exceptions in Schedule B of the Policy, unless you dispose of these matters to our satisfaction, before the date the Policy is issued:

1. Documents creating your title or interest must be approved by us and must be signed, notarized and filed for record.

2. Satisfactory evidence must be provided that:

   a. no person occupying the land claims any interest in that land against the persons named in paragraph 3 of Schedule A,

   b. all standby fees, taxes, assessments and charges against the property have been paid,

   c. all improvements or repairs to the property are completed and accepted by the owner, and that all contractors, sub-contractors, laborers and suppliers have been fully paid, and that no mechanic's, laborer's or materialmen's liens have attached to the property,

   d. there is legal right of access to and from the land,

   e. (on a Mortgagee Policy only) restrictions have not been and will not be violated that affect the validity and priority of the insured mortgage.

3. You must pay the seller or borrower the agreed amount for your property or interest.

4. Any defect, lien or other matter that may affect title to the land or interest insured, that arises or is filed after the effective date of this Commitment.

5. Prior approval from Regional Underwriting must be obtained if the subject transaction involves the proposed issuance of (i) an Owner's Policy to a person or entity who purchased the subject property at a foreclosure sale, or (ii) a Loan Policy insuring a lien granted by such person or entity on the subject property.

6. A deed of trust to secure an indebtedness in the amount shown below,

Amount:	$965,000.00
Dated:	July 30, 2014
Trustor/Grantor	Larry Don Jacobs and Beverley S. Jacobs, Co-Trustees of the Jacobs 2012 Descendants Trust
Trustee:	Ben R. Novosad
Beneficiary:	Capital Farm Credit, FLCA
Recording Date:	August 1, 2014
Recording No:	2014074532

Subordination Agreement dated November 15, 2018, made by and between Bayou Land Conservancy ("Company") and Capital Farm Credit, FLCA ("Lender"), recorded under Clerk's File No. 2018110899 of the Official Public Records of Montgomery County, Texas. Amended and Restated by instrument recorded under Clerk's File No. 2019046870 of the Official Public Records of Montgomery County, Texas.

7. A deed of trust to secure an indebtedness in the amount shown below,

Amount:	$360,000.00
Dated:	February 17, 2016
Trustor/Grantor	Larry Don Jacobs and Beverley S. Jacobs, Co-Trustees of the Jacobs 2012 Descendants Trust

SCHEDULE C
(continued)

Trustee: Ben R. Novosad
Beneficiary: Capital Farm Credit, FLCA
Recording Date: February 18, 2016
Recording No: 2016013474

Subordination Agreement dated November 15, 2018, made by and between Bayou Land Conservancy ("Company") and Capital Farm Credit, FLCA ("Lender"), recorded under Clerk's File No. 2018110899 of the Official Public Records of Montgomery County, Texas. Amended and Restated by instrument recorded under Clerk's File No. 2019046870 of the Official Public Records of Montgomery County, Texas.

8. For each entity that will execute any document in connection with a conveyance or encumbrance of the land herein described and the closing contemplated hereby (AND any other entity executing said document on its behalf), the company must be furnished the following authority and existence documentation:

(a) Corporation - Certificate of Formation, Good Standing Certificate and Articles of Incorporation from the Secretary of State of the state of the entity's formation, and a properly executed Corporate Resolution to support the proposed transaction.

(b) Limited Liability Company - Certificate of Formation, Good Standing Certificate and Articles of Organization from the Secretary of State of the state of the entity's formation, copy of Operating / Company Agreement (and any Amendments thereto), and if necessary/required by said Operating/Company Agreement, a Secretary's Certificate or Unanimous Consent to support the proposed transaction.

(c) General Partnership - copy of Partnership Agreement (and any Amendments thereto).

(d) Limited Partnership - Certificate of Formation, Good Standing Certificate from the Secretary of State of the state of the entity's formation, copy of Limited Partnership Agreement (and any Amendments thereto), and evidence of consent of limited partners, if required.

(e) Joint Venture - copy of Joint Venture Agreement (and any Amendments thereto).

(f) Trust - copy of the Trust Agreement (and any Amendments thereto) for review or, in the alternative, the Trustee must provide a Certification of Trust in meeting all of the provisions of Section 114.086(a) and (c) of the Texas Property Code.

Company reserves the right to make additional requirements based upon its review of any of the foregoing items.

9. The following note is for informational purposes only:

The following deed(s) affecting said land were recorded within twenty-four (24) months of the date of this report:

None found of record.

The Deed into Vestee was filed on April 2, 2014 under Montgomery County Clerk's File No(s). 2014029292

10. Due to office closures related to COVID-19, we may be temporarily unable to record/access documents in the normal course of business. As such, we will require our AFFIDAVIT OF UNDERSTANDING AND INDEMNITY AND HOLD HARMLESS AGREEMENT DUE TO CORONAVIRUS PANDEMIC to be signed by all parties.

SCHEDULE D

Commitment No.: 4000411800323 GF No.: sat-41-4000411800323-CV

Pursuant to the requirements of Rule P-21, Basic Manual of Rules, Rates and Forms for the writing of Title Insurance in the State of Texas, the following disclosures are made:

1. The issuing Title Insurance Company, **Alamo Title Insurance**, is a corporation whose shareholders owning or controlling, directly or indirectly, 10% of said corporation, directors and officers are listed below:

   Shareholders: Fidelity National Title Group, Inc. which is owned 100% by FNTG Holdings, LLC which is owned 100% by Fidelity National Financial, Inc.

   Directors: Raymond Randall Quirk, Anthony John Park, Michael Louis Gravelle, Joseph W. Grealish, Erika Meinhardt, John A. Wunderlich, Roger S. Jewkes

   Officers: Raymond Randall Quirk (President), Anthony John Park (Executive Vice President), Michael Louis Gravelle (Secretary), Daniel Kennedy Murphy (Treasurer)

2. The following disclosures are made by the Title Insurance Agent issuing this Commitment:

   Alamo Title Company

   (a) A listing of each shareholder, owner, partner, or other person having, owning or controlling one percent (1%) or more of the Title Insurance Agent that will receive a portion of the premium.

   Owners: Alamo Title Holding Company owns 100% of **Alamo Title Company**

   (b) A listing of each shareholder, owner, partner, or other person having, owning or controlling 10 percent (10%) or more of an entity that has, owns or controls one percent (1%) or more of the Title Insurance Agent that will receive a portion of the premium.

   Owners: FNTS Holdings, LLC owns 100% of Alamo Title Holding Company, which owns 100% of **Alamo Title Company**

   (c) If the Agent is a corporation: (i) the name of each director of the Title Insurance Agent, and (ii) the names of the President, the Executive or Senior Vice-President, the Secretary and the Treasurer of the Title Insurance Agent.

   Directors: Raymond Randall Quirk, Anthony John Park

   Officers: Raymond Randall Quirk (Chief Executive Officer), Paula D. Hester (President and County Manager), Edward J. Hall (President and County Manager), Todd B. Rasco (President and County Manager), Anthony John Park (Executive Vice President), Michael Louis Gravelle (Secretary), Daniel Kennedy Murphy (Treasurer), Christina Shaheen (Vice President), Nancy Fox (Vice President)

   (d) The name of any person who is not a full-time employee of the Title Insurance Agent and who receives any portion of the title insurance premium for services performed on behalf of the Title Insurance Agent in connection with the issuance of a title insurance form; and, the amount of premium that any such person shall receive.

   (e) For purposes of this paragraph 2, "having, owning or controlling" includes the right to receipt of a percentage of net income, gross income, or cash flow of the Agent or entity in the percentage stated in subparagraphs (a) or (b).

3. You are entitled to receive advance disclosure of settlement charges in connection with the proposed transaction to which this commitment relates. Upon your request, such disclosure will be made to you. Additionally, the name of any person, firm or corporation receiving a portion of the premium from the settlement of this transaction will be disclosed on the closing or settlement statement.

   You are further advised that the estimated title premium* is:

Owner's Policy		**$**	**TBD**
	Total	**$**	**TBD**

   Of this total amount: 15% will be paid to the policy issuing Title Insurance Company; 85% will be retained by the issuing Title Insurance Agent; and the remainder of the estimated premium will be paid to other parties as follows:

Percent/Amount	To Whom	For Services

   *The estimated premium is based upon information furnished to us as of the date of this Commitment for Title Insurance. Final determination of the amount of the premium will be made at closing in accordance with the Rules and Regulations adopted by the Commissioner of Insurance.

DELETION OF ARBITRATION PROVISION

(Not applicable to the Texas Residential Owner's Policy)

ARBITRATION is a common form of alternative dispute resolution. It can be a quicker and cheaper means to settle a dispute with your Title Insurance Company. However, if you agree to arbitrate, you give up your right to take the Title Insurance Company to court and your rights to discovery of evidence may be limited in the arbitration process. In addition, you cannot usually appeal an arbitrator's award.

Your policy contains an arbitration provision (shown below). It allows you or the Company to require arbitration if the amount of insurance is $2,000,000 or less. If you want to retain your right to sue the Company in case of a dispute over a claim, you must request deletion of the arbitration provision before the policy is issued. You can do this by signing this form and returning it to the Company at or before the closing of your real estate transaction or by writing to the Company.

The arbitration provision in the Policy is as follows:

> "Either the Company or the Insured may demand that the claim or controversy shall be submitted to arbitration pursuant to the Title Insurance Arbitration Rules of the American Land Title Association ("Rules"). Except as provided in the Rules, there shall be no joinder or consolidation with claims or controversies of other persons. Arbitrable matters may include, but are not limited to, any controversy or claim between the Company and the Insured arising out of or relating to this policy, any service in connection with its issuance or the breach of a policy provision, or to any other controversy or claim arising out of the transaction giving rise to this policy. All arbitrable matters when the Amount of Insurance is $2,000,000 or less shall be arbitrated at the option of either the Company or the Insured, unless the Insured is an individual person (as distinguished from an Entity). All arbitrable matters when the Amount of Insurance is in excess of $2,000,000 shall be arbitrated only when agreed to by both the Company and the Insured. Arbitration pursuant to this policy and under the Rules shall be binding upon the parties. Judgment upon the award rendered by the Arbitrator(s) may be entered in any court of competent jurisdiction."

_____ _____

Signature Date

Alamo Title Insurance
2915 W. Bitters, Suite 301, Heritage Oaks Building III
San Antonio, TX 78248
Phone (210)490-1313 * Fax (210)490-1312

AFFILIATED BUSINESS ARRANGEMENT DISCLOSURE STATEMENT
(Exhibit D in 24 CFR §3500)

This is to give you notice that Alamo Title Insurance, a subsidiary of Fidelity National Financial, Inc. has a business relationship with the settlement service providers listed below to which you have been referred. Each of the companies listed below is One-Hundred Percent (100%) owned directly or indirectly by Fidelity National Financial, Inc. Because of this relationship, this referral may provide Alamo Title Insurance with a financial or other benefit.

Set forth below is the estimated charge or range of charges for the settlement services listed. You are NOT required to use the listed providers as a condition for the consummation of the transaction involving the above referenced property.

Settlement Service Provider:	Type of Settlement Provided:	Range of Charges:
National TaxNet	Tax Information	$22.50 to $80 including sales tax and $5 for each additional parcel over 3 parcels

There are frequently other settlement service providers available who offer similar services. You are free to shop around to determine that you are receiving the best services and the best rate for these services.

Acknowledgment
I/We have read this disclosure form and understand that Alamo Title Insurance is referring me/us to purchase the above described settlement services and may receive a financial or other benefit as the result of this referral.

_____ _____

respect to the premises not expressed herein. Witness my hand this Aug. 16th 1907.

Witness:
L. M. Fitzgerald.

H. B. Beckworth.

The State of Texas
County of Montgomery } Before me, the undersigned authority, on this day personally appeared H. B. Beckworth known to me to be the person whose name is subscribed to the foregoing instrument and he acknowledged to me that he had executed the same for the purpose and consideration stated therein. Given under my hand and seal of office, this the 16 day of August 1907.

(Seal)

H. Williams Notary Public,
Montgomery County, Texas

Filed for Record September 11-1907 at 9 o'clock A. M.
Recorded September 13-1907 at 10 o'clock A. M.
W. F. Griffin Clk. C. C. Mont. Co.

Vol. 45/ Pg. 315
- Blanket Pipeline Easement (1907)

- Only affects portion of the Bank that lies on Tract 1

7465

Ned Jackson
To
The Texas Co.

The State of Texas
County of Montgomery } Know all men by these presents: That the undersigned, Ned Jackson (hereinafter styled Grantor) in consideration of Ten & no/100 Dollars in hand paid by The Texas Company, a Corporation of Texas, doth hereby grant and convey unto the said The Texas Company (herein styled Grantee), its successors and assigns, the right to construct, operate and maintain a pipe line for the transportation of oil or gas over through and upon a certain tract of land situated in Montgomery County, Texas, and described as follows: (200) Two hundred acres of land more or less out of the Anna White league, same being all the land owned by the said Ned Jackson, through and upon which said pipe line is to be constructed.

There is also hereby granted the right to erect and maintain upon and across said premises a line of poles and telegraph and telephone wires thereon, and also the right to lay adjacent to and parallel with the first pipe line a second pipe line, and the Grantee, its successors and assigns, shall at all reasonable times have the right of ingress and egress to and from said line or lines for the purpose

of construction, inspecting, repairing and maintaining the same and the removal of such at will in whole or in part. The grantee, its successors and assigns, to select the route of such lines. To have and to hold the said easements unto the said The Texas Company, its successors and assigns, so long as such structures are maintained. By acceptance hereof the grantee covenants for itself, successors and assigns, that it will so bury said pipe lines as that such will not interfere with the cultivation of the premises and also that it will pay all damages to crops and fences which may be suffered from the laying, maintaining and operating said pipe lines. It is understood that the person securing this right of way in behalf of the grantee is without authority to make any covenant or agreement in respect to the premises not expressed herein. Witness my hand this Aug. 17th 1907.

Witness:
L. H. Fitzgerald.
S. M. Livingston.

Ned his X mark Jackson

State of Texas
County of Montgomery } Before me, the undersigned authority on this day personally appear L. H. Fitzgerald known to me to be the person whose name is subscribed as a witness to the foregoing instrument and being by me duly sworn, on oath, deposes and says that he saw Ned Jackson, the grantor or persons who executed the same, sign and execute the said instrument for the purposes and consideration therein stated and that he signed the same as a witness at the request of the said Ned Jackson.
Given under my hand and seal of office this 17 day of August A. D. 1907.

(Seal) H. Williams Notary Public
Montgomery County, Texas

Filed for Record September 11-1907 at 9 o'clock A. M.
Recorded September 13. 1907 at 11 o'clock A. M.
W. T. Griffin Clk. C. C. M. C.