

Exhibit EE. Chemin 3 Site Wetlands Delineation Report



Wetland Delineation Report

Chemin 3 Site

December 2025

Chemin 3 Site Wetlands Delineation Report

Prepared for:

One Acadiana

Prepared by:

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1.0 Introduction

1.1 Background

Chenier Environmental Consulting, LLC (Chenier) has been retained by One Acadiana to prepare a wetland delineation on an ±83-acre site located south of Chemin Metairie Parkway (Figure 1). The site is in Youngsville, Lafayette Parish, Louisiana (Figure 1).

The purpose of this report is to present field data, habitat descriptions, and other pertinent information on the three diagnostic characteristics of wetlands and non-wetland Waters of the United States (WOUS) within the survey boundary (Site).

Chenier conducted site visits in September 2025, to identify and delineate potential WOUS features, including wetlands, which occur within the proposed project area. The features identified during the site visits are described in this report.



2.0 Methodology

2.1 Desktop Review

Prior to conducting field surveys, a desktop review of potential wetlands and non-wetland WOUS and jurisdictional status of these features was completed using Natural Resources Conservation Service (NRCS) soil data; Lafayette Parish Soil Survey Reports; U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) data; United States Geological Survey (USGS) 7.5-minute topographic maps; and color-infrared aerial photography; and the USGS National Hydrographic Dataset (Figure 2). The information gathered during the desktop review is further discussed in Section 3. The presence of wetlands and other WOUS was confirmed by a field visit during which the boundaries of these features were defined.

2.2 WOUS Delineation

Field delineations were conducted following procedures set forth in the Interim Regional Supplement of the USACE Wetlands Delineation Manual: Atlantic and Gulf Coast Region (USACE 2010). Chenier biologists followed USACE standard procedures to evaluate wetlands and other WOUS subject to regulation under the Clean Water Act (jurisdictional waters), as established in the Atlantic and Gulf Coast Supplement (USACE 2010) and the USACE Jurisdictional Determination Form Instructional Guidebook (USACE 2007), respectively. For this report, streams are classified as follows:

- **Perennial stream:** A perennial stream has flowing water year-round during a typical year. The water table is located above the stream bed for most of the year. Groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.
- **Intermittent stream:** An intermittent stream has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow.
- **Ephemeral stream:** An ephemeral stream has flowing water only during and for a short duration after precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.



The Corps of Engineers Wetlands Delineation Manual (USACE 1987) defines wetlands as areas that have positive indicators for hydrophytic vegetation, wetland hydrology, and hydric soils, or as:

“Areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.”

2.3 Definition of Boundaries

The limits of USACE jurisdiction for non-tidal waters (not including wetlands) of the United States (creeks, streams, etc.) are identified by the presence of ordinary high-water marks (OHWMs). The OHWM is defined as

“That line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in soil character, destruction of terrestrial vegetation, the presence of litter or debris, or other appropriate means that consider the characteristics of the surrounding areas” (USACE 2007).

The wetland/upland boundary is determined when one of the mandatory criteria (soils, vegetation, and hydrology; described later in this section) does not exist.

2.4 Field Documentation

The following text describes the methods used during the WOUS surveys.

2.4.1 WOUS and Wetlands

The Routine Onsite Determination Method involves the following steps:

1. Locate the project area.
2. Identify the community type(s).
3. Select representative observation points.
4. Characterize each plant community type.
5. Record the indicator status of dominant species.
6. Determine whether hydrophytic vegetation is present and dominant.
7. Determine whether wetland hydrology is present.
8. Determine whether hydric soils are present.



Under this method, areas exhibiting a presence of wetland hydrology, hydric soils, and a dominance of hydrophytic vegetation are defined as wetlands. The method requires that additional consideration be given to sites with atypical conditions (evidence of sufficient natural or human-induced alterations that significantly alter the soils, vegetation, or hydrology) and sites where normal environmental conditions are not present during the wetland delineation (i.e., no hydrophytic vegetation due to annual or seasonal fluctuations in precipitation or groundwater levels).

Data was collected at representative observation points within each plant community type. USACE Atlantic and Gulf Coastal Plain wetland data forms were completed for each observation point. Figure 3 depicts the potential jurisdictional wetlands/WOUS features, and observation points recorded during the survey. The wetland and upland data forms are presented in Appendix B, and photographs of sampling points are in Appendix C.

Each identified wetland was classified based on the U.S. Fish and Wildlife Service classification system (Cowardin, Carter, et al. 1979). Dominant vegetation was noted according to stratum: tree, shrub/sapling, woody vine, or herb. The wetland indicator status (Table 1) for each species was identified using the National Wetlands Inventory List of Plants that Occur in Wetlands (Reed 1988) and subsequent approved modifications to this list. Plants were identified using current taxonomic references, such as Aquatic and Wetland Plants of the Southeastern United States (Godfrey and Wooten 1981, Godfrey and Wooten 1980). Where recent taxonomic changes resulted in plant names that were not included in the National Wetlands Inventory List of Plants that Occur in Wetlands (Reed 1988), appropriate synonym was used to reference the national list.

Table 1

Definitions for Wetland Indicator Status		
Code	Term	Definition
OBL	Obligate	Species occurs in wetlands greater than 99% of the time.
FACW	Facultative Wetland	Species occurs in wetlands 67% to 99% of the time.
FAC	Facultative	Species occurs in wetlands 34% to 66% of the time.
FACU	Facultative Upland	Species occurs in wetlands 1% to 33% of the time.
UPL	Upland	Species occurs in wetlands less than 1% of the time.



Soil information was obtained from the Natural Resources Conservation Service (NRCS) Web Soil Survey for Lafayette Parish, Louisiana (NRCS 2019). Within each area investigated, soil samples were inspected for hydric soil indicators, as provided on the wetland data forms. Using the Munsell Soil Color Charts (Munsell 1994), the value and chroma of soil samples were recorded. Soil texture and any observations of redoximorphic features were recorded. Wetland hydrology observations included soil saturation, evidence of any standing or ponded water, the presence of drainage patterns, and/or drift lines, and any additional primary or secondary hydrology indicator as defined by the Interim Regional Supplement of the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coast Region (USACE 2010).



3.0 Desktop Review

3.1 Location

The site is in Youngsville, Lafayette Parish, Louisiana (Figure 1). The 83-acre site is irregular in shape (Figure 3). The site is bordered by Chemin Metairie Parkway followed by farmland to the north; farmland followed by Chemin Metairie Parkway to the east; farmland and residences to the south; and South Larriviere Road followed by a residential subdivision and farmland to the west. The site can be accessed off South Larriviere Road.

Lafayette Parish is in the south-central part of Louisiana and is in the Western Gulf Coast Plain Ecoregion of Louisiana (Figure 1) and falls within the *Southern Mississippi Valley Loess Major Land Resource Area* (MLRA 134) (NRCS 2006).

3.2 Geology

The Site is located within the Lafayette Loess Plains ecoregion of the in the Western Gulf Coast Plain of the Western Gulf Coast region. This ecoregion has is described as deep to very deep, well-drained to poorly drained soils formed in a silty loess cap over underlying loamy and gravelly outwash or marine sediments. The specific soil types that underlie the site are discussed below.

3.3 Hydrology

The site is in the Vermilion-Teche River Basin. The Hydrologic Unit Code (HUC-12) for this area is 080801030202. The USFWS National Wetland Inventory (NWI) Map depicts a small, channelized stream in the south-central part of the site. This same stream is depicted on the U.S. Geological Survey Topographic Maps in 1939 and 2020. According to the FEMA National Flood Insurance Hazard website, the site is located within Zone X and ground elevation is approximately 20 feet.

3.4 Soils

The soil series located within Lafayette Parish are described by the U.S. Department of Agriculture (USDA), Natural Resources Conservation Service on the [Web Soil Survey](http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx) (<http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>). According to the Web Soil Survey, the site is underlain by Coteau silt loam (CoA) and Frost silt loam (FoA).

Figure 2 shows the distribution of the soil series across the Site and surrounding area.



3.4.1 Coteau Silt Loam

The Coteau series consists of somewhat poorly drained, moderately slowly permeable soils that formed under grassland vegetation in loess deposits more than 4 feet thick. Slopes range from 0 to 3 percent. The upper three horizons of a representative profile of a Commerce soil consist of:

- 0 to 5 inches; dark grayish brown (10YR 4/2) silt loam
- 5 to 12 inches; dark yellowish brown (10YR 3/4) silty clay loam
- 12 to 22 inches; brown (10YR 5/3) silty clay loam

3.4.2 Frost Silt Loam

The Frost series consists of very deep, poorly drained, slowly permeable soils that formed in silty alluvium or loess. These soils are in broad depressional areas and in drainageways on late Pleistocene age terraces. Slope is dominantly less than 0.5 percent, but it ranges to 1 percent along narrow drainageways. The upper three horizons of a representative profile of a Commerce soil consist of:

- 0 to 6 inches; grayish brown (10YR 5/2) silt loam
- 6 to 10 inches; grayish brown (10YR 5/2) silt loam
- 10 to 22 inches; light brownish gray (10YR 6/2) and gray (10YR 6/1) silt loam



4.0 Site Visit Results

4.1 Wetlands and WOUS

Field investigations identified potential jurisdictional wetlands and non-wetland WOUS on the site. Figure 3 depicts the wetlands and non-wetland waters identified during this investigation. The wetland features were delineated using a traditional mapping approach to identify the boundaries of each individual wetland. Non-wetland waters included a perennial channelized stream and ephemeral agricultural and roadside drainage ditches.

4.1.1 Wetland Habitat Descriptions

No jurisdictional wetlands were identified on the site. It is a planted sugar cane field.

4.1.2 Drainage Ditches and Potential Other Waters of the U.S.

The following are descriptions of the potentially non-jurisdiction and jurisdictional non-wetland waters (ditches, streams, etc.) on the Site:

- **S1** is an **ephemeral** roadside drainage ditch located along the western boundary of the site. The feature flows south, capturing runoff from the western portion of the property. S1 originates near the northwest corner and terminates near the southwest corner of the site. A subsurface drain connects the northern portion of S1 to S6. The top-of-bank (TOB) width averaged approximately 11 feet, with a bank height of about 4 feet. No surface water was present within S1 at the time of the site visit, and no wetland indicators were observed. Based on the lack of relative permanence, S1 appears to be a non-jurisdictional feature.
- **S2** is an **ephemeral** agricultural drainage ditch that receives surface runoff from S3 and extends south through the central portion of the site before continuing offsite. The feature runs perpendicular to the southern boundary of the property. The top-of-bank (TOB) width averaged approximately 5 feet, with a bank height of about 1.5 feet. No surface water was present at the time of the site visit, and no wetland vegetation or indicators of sustained hydrology were observed. Based on these conditions, its function as an agricultural stormwater conveyance, and its lack of relative permanence, S2 appears to be a non-jurisdictional feature.
- **S3** is an **ephemeral** agricultural drainage ditch located along the southern boundary of the site. The feature captures runoff from the southeastern portion of the property and flows westward into S2 before continuing south offsite (see Figure 2). The top-of-bank (TOB) width is



approximately 4 feet, with a bank height ranging from 1 to 2 feet. No surface water was present at the time of the site visit, and no wetland indicators were observed. Based on the absence relative permanence and its function as an agricultural stormwater conveyance, S3 appears to be a non-jurisdictional feature.

- **S4** is an **intermittent** drainage ditch that runs along the eastern boundary of the site before continuing south, where it ultimately discharges into Bayou Parc Perdu as identified in USDA's Web Soil Survey. The canal receives flow from the eastern portion of the site as well as from S5 and S6. The top-of-bank (TOB) width ranged from approximately 10 to 15 feet, with an average bank height of 10 feet. Water depths during the site visit ranged from 6 to 11 inches. Based on the presence of surface water and its hydrologic connection to Bayou Parc Perdu, S4 appears to be a jurisdictional feature.
- **S5** is an **ephemeral** agricultural drainage ditch that runs east to west through the center of the site. The feature receives runoff from the eastern portion of the property and conveys flow either east into S4 or west into S7. The top-of-bank (TOB) width averaged approximately 3 feet, with a bank height of about 1 foot. No surface water was present within S5 at the time of the site visit, and no relative permanence was observed. Based on these conditions, S5 appears to be a non-jurisdictional feature.
- **S6** is an **ephemeral** roadside drainage ditch that runs along the northern boundary of the site. Field observations indicate that S6 does not have a direct hydrologic connection to the site. The feature flows east into S4 and is connected subsurface to both S1 and S4 through subsurface drains. S6 has an average top-of-bank (TOB) width of approximately 10 feet and a TOB height of approximately 5 feet. No surface water or relative permanence were observed within S6 at the time of the site visit. Based on these conditions and the lack of a jurisdictional connection, S6 appears to be a non-jurisdictional feature.
- **S7** is an **intermittent** drainage ditch that extends south through the southwestern portion of the site before continuing offsite, where it ultimately discharges into Bayou Parc Perdu as identified in USDA's Web Soil Survey. S7 drains the southwestern portion of the property and is hydrologically connected to S5 via a subsurface connection along the western side of S5. At the time of the site visit, surface water was present within S7 at an average depth of approximately 4 inches, and wetland vegetation was observed within the channel (see Appendix). The top-of-bank (TOB) width averaged 5 feet, with a bank height ranging from 2 to 3 feet. Based on observed hydrology, wetland vegetation, and its surface connection to Bayou Parc Perdu, S7 appears to be a jurisdictional feature.



4.2 Upland Feature Descriptions

The upland portion of the subject property is an agricultural field that was planted in sugarcane. Vegetative cover is dominated by cultivated sugarcane (*Saccharum officinarum*) with scattered occurrences of grass and weedy species typical of disturbed agricultural uplands, including vaseygrass (*Paspalum urvillei*) and bermudagrass (*Cynodon dactylon*). The area is routinely managed for crop production and exhibits characteristics consistent with intensively farmed upland habitat.

The upland data points include DP1 and DP2. The dominant vegetation consisted of FACU Bermuda grass *and* sugarcane.



5.0 Conclusions

This report summarizes the results of the wetland delineation conducted in September 2025 on the ±83-acre site in Youngsville, Lafayette Parish, Louisiana. This report identifies no wetlands on the site and two potential jurisdictional WOUS totaling approximately 2,220 linear feet.

Wetlands and watercourses were delineated in accordance with the USACE Wetland Delineation Manual (USACE Environmental Laboratory 1987) and Interim Regional Supplement of the Corps of Engineers Wetlands Delineation Manual: Atlantic and Gulf Coast Region (USACE 2010). These features were described based on field assessments and reviews of readily available data, including NWI maps, NRCS soil surveys, 7.5-minute USGS topographic quadrangles maps, and USGS NHD data.

The USACE, under the authority of Section 404 of the Clean Water Act and of Section 10 of the Rivers and Harbor Act, has the authority to make the final determination of the location and extent of jurisdictional wetlands and navigable waters for this project area, respectively. This report represents the opinion of the Chenier investigators and should be considered preliminary until final concurrence is obtained from the USACE New Orleans District.



6.0 References

- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. *Classification of wetlands and deepwater habitats of the United States*. USFWS/OBS-79/31, U.S. Fish and Wildlife Service, Biological Services Program, 1979.
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. *Classifications of wetlands and deepwater habitats of the United States*. Washington D.C.: U.S. Department of the Interior, U.S. Fish and Wildlife Service, 1979.
- Daigle, J.J., Griffith, G.E. Omernik, J.M., Faulkner, P.L. McCulloh, R.P., Handley, L.R., Smith, L.M., and Chapman, S.S., 2006, *Ecoregions of Louisiana* (color poster with map, descriptive text, summary tables, and photographs): Reston, Virginia, U.S. Geological Survey (map scale 1:1,000,000)
- FEMA. Flood Map Service Center. <https://msc.fema.gov/portal/> Accessed September 2025.
- Godfrey, R.K, and J.W. Wooten. *Aquatic and wetland plants of the southeastern United States: Dicotyledons*. The University of Georgia Press, 1981.
- Godfrey, R.K., and J.W. Wooten. *Aquatic and Wetland Plants of the Southeastern United States: Monocotyledons*. The University of Georgia Press, 1980. <https://gulfcoast.harc.edu/Biodiversity/Ecoregions/MississippiAlluvialSoutheastUSCoastalPlains/tabid/2250/Default.html>. Accessed September 2025.
- Munsell. "Munsell soil color charts." Baltimore, Maryland: Kollmorgen Corporation, 1994.
- Natural Resources Conversation Service. Web Soil Survey. <http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>. Accessed September 2025.
- Natural Resource Conservation Service. "National Hydric Soils List." March 2014. <http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/>.
- Natural Resources Conservation Service, U.S. Department of Agriculture. *Official Soil Series Descriptions*. n.d. <https://soilseries.sc.egov.usda.gov/osdname.asp> Accessed September 2025.
- Reed, P.B. *National list of plant species that occur in wetlands*. U.S. Fish and Wildlife Service in cooperation with the U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, and the U.S. Soil Conservation Service, 1988.
- U.S. Army Corps of Engineers Environmental Laboratory. *Corps of Engineers Wetlands Delineation Manual*. Y-87-1, Vicksburg, Mississippi: U.S. Army Corps of Engineers Waterways Experiment Station, 1987.



U.S. Army Corps of Engineers. *Regional Supplement of the Corps of Engineers Wetlands Delineation Manual: Atlantic and Gulf Coast Region (Version 2.0)*. ERDC/EL TR-10-20, Vicksburg, Mississippi: U.S. Army Corps of Engineers Engineer Research and Development Center, 2010.

U.S. Geological Survey. National Hydrographic Dataset. https://www.usgs.gov/core-science-systems/ngp/national-hydrography/national-hydrography-dataset?qt-science_support_page_related_con=0#qt-science_support_page_related_con. Accessed September 2025.

U.S. Geological Survey. 1997. *Hydrologic Unit Map-1974*. State of Louisiana. U.S. Geological Survey, 1977.



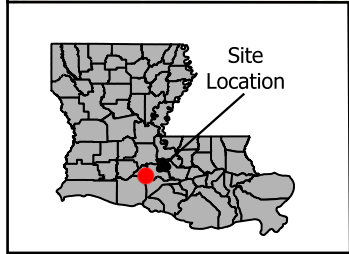
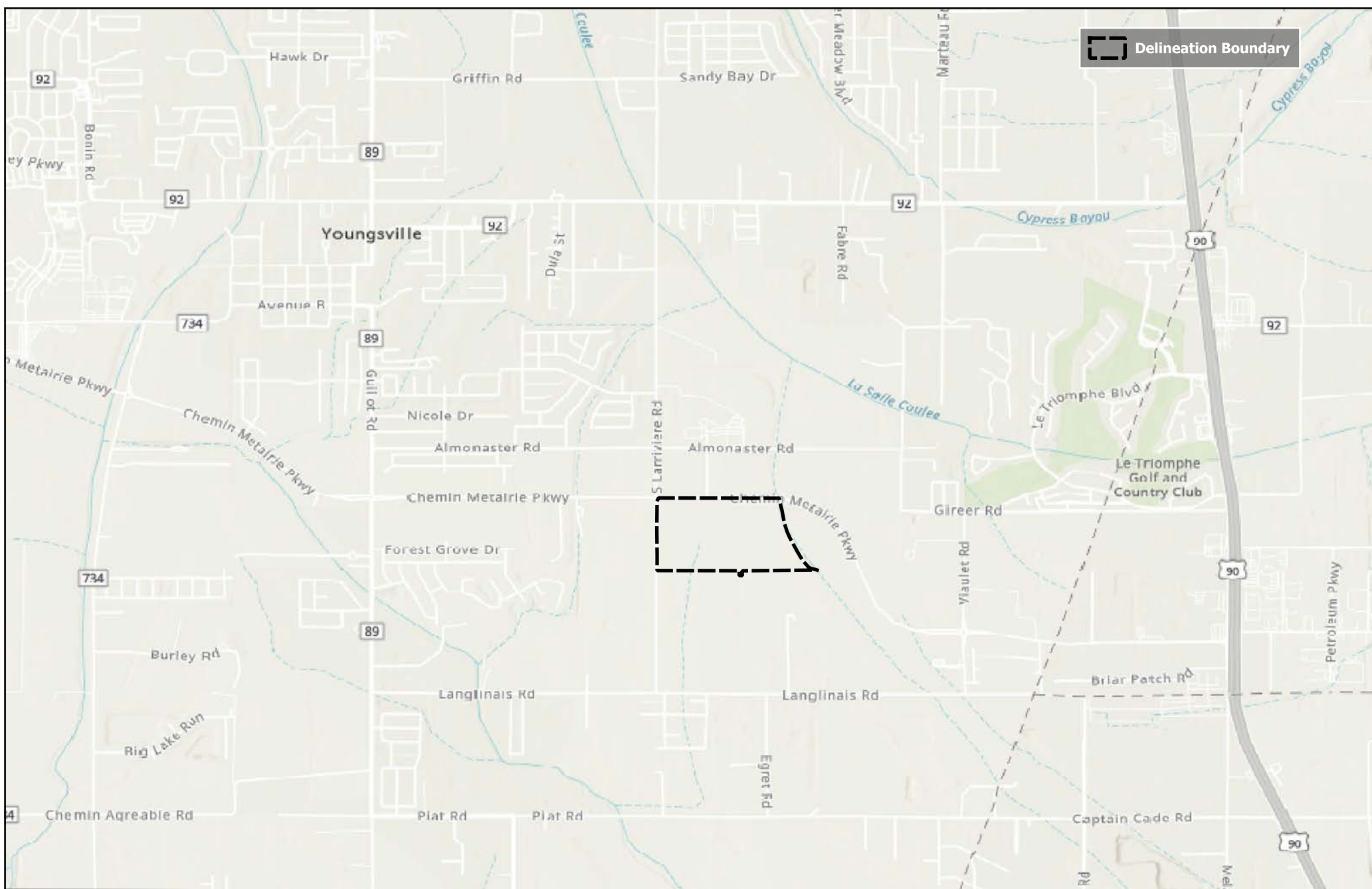
Appendices



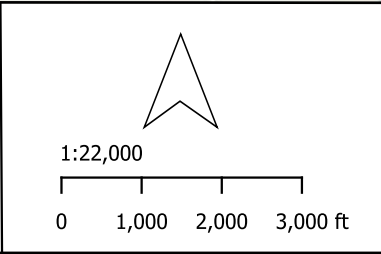
Appendix A

Figures





Site Location

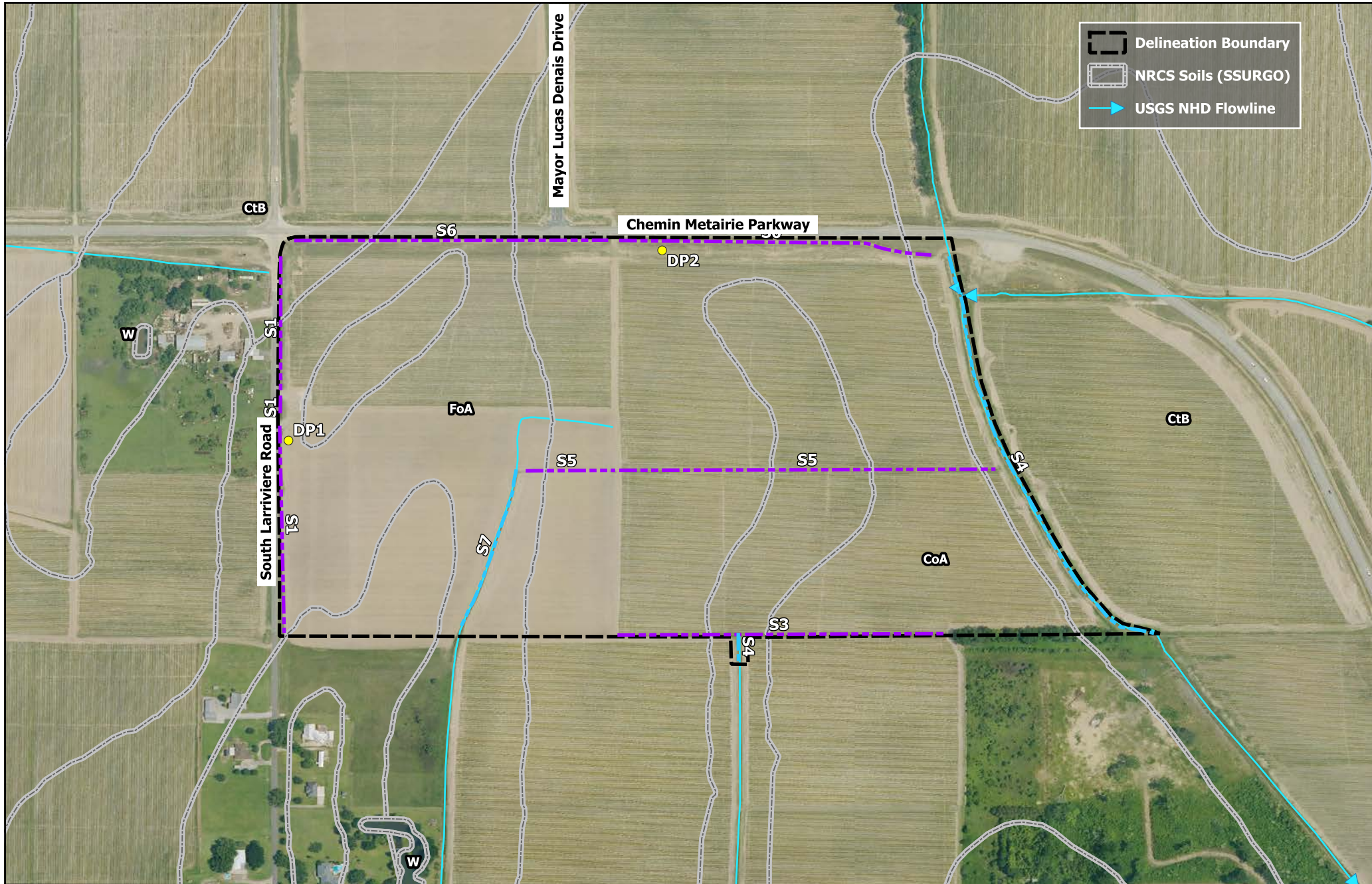


**Figure 1 - Vicinity Map
Chemin 3 Site
One Acadiana
Lafayette Parish, Louisiana**

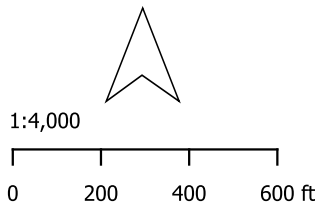
Notes:

CHENIER

Data Source: Chenier Environmental Consulting, LLC;
 Imagery: USGS Topographic Map
 Map Date: December 8, 2025
 Created By: Brad Griffin



Site Location



**Figure 2 - Existing Conditions Map
Chemin 3 Site
One Acadiana
Lafayette Parish, Louisiana**

Delineation Boundary Soil Types:

CoA - Coteau silt loam, 0 to 1% slopes

CtB - Coteau-Frost complex, gently undulating

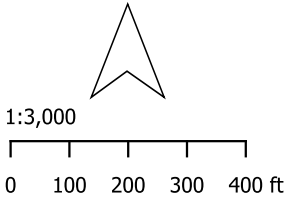
FoA - Frost silt loam, 0 to 1% slopes

CHENIER

Data Source: Chenier Environmental Consulting, LLC; NRCS; NHD; Imagery: 2023 NAIP DOQQ NC Map Date: December 8, 2025 Created By: Brad Griffin



Site Location



**Figure 3 - Wetland Delineation Map
Chemin 3 Site
One Acadiana
Lafayette Parish, Louisiana**

Notes:

CHENIER 

Data Source: Chenier
Environmental Consulting, LLC
Imagery: 2023 NAIP DOQQ NC
Map Date: December 8, 2025
Created By: Brad Griffin

Appendix B

U.S. Army Corps of Engineers Wetland Field Data Sheets



	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: _____)				
1.	_____	_____	_____	
2.	_____	_____	_____	
3.	_____	_____	_____	
4.	_____	_____	_____	
5.	_____	_____	_____	
6.	_____	_____	_____	
7.	_____	_____	_____	
8.	_____	_____	_____	
				_____ = Total Cover
50 % of total cover: _____		20 % of total cover: _____		
Sapling/Shrub Stratum (Plot size: _____)				
1.	_____	_____	_____	
2.	_____	_____	_____	
3.	_____	_____	_____	
4.	_____	_____	_____	
5.	_____	_____	_____	
6.	_____	_____	_____	
7.	_____	_____	_____	
8.	_____	_____	_____	
				_____ = Total Cover
50% of total cover _____		20 % of total cover: _____		
Herb Stratum (Plot size: <u>10 ft</u>)				
1.	<u><i>Cynodon dactylon</i></u>	50	Y	FACU
2.	<u><i>Saccharum officinarum</i></u>	30	Y	FACU
3.	<u><i>Chamaesyce maculata</i></u>	15	N	FACU
4.	<u><i>Acmella oppositifolia</i></u>	5	N	FACW
5.	<u><i>Aeschynomene indica</i></u>	5	N	FACW
6.	<u><i>Setaria parviflora</i></u>	3	N	FACW
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
11.	_____	_____	_____	_____
12.	_____	_____	_____	_____
				_____ = Total Cover
50 % of total cover: _____		20 % of total cover: _____		
Woody Vine Stratum (Plot size: _____)				
1.	_____	_____	_____	
2.	_____	_____	_____	
3.	_____	_____	_____	
4.	_____	_____	_____	
5.	_____	_____	_____	
				_____ = Total Cover
50 % of total cover: _____		20 % of total cover: <u>0.</u>		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

	Total % Cover of:	Multiply by:
OBL species	<u>0</u>	<u>0</u>
FACW species	<u>13</u>	<u>26</u>
FAC species	<u>0</u>	<u>0</u>
FACU species	<u>85</u>	<u>340</u>
UPL species	<u>0</u>	<u>0</u>
Column Totals:	<u>98</u>	<u>366</u> (B)

Prevalence Index = B/A = 3.73

Hydrophytic Vegetation Indicators:

1 – Rapid Test for Hydrophytic Vegetation

2 – Dominance Test is > 50%

3 – Prevalence Test is ≤ 3.0¹

 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes No x

Remarks: (Include photo numbers here or on a separate sheet.)

DP1 is located in a moderately well-drained area and is dominated by upland (FACU) plant species. Scattered wetland species were present as incidental weeds. Representative photographs of the sampling location are provided in the appendix (Images 16 and 17).

SOIL

Sampling Point: DP1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-7	10YR5/3	100					Silt loam	
7-18	10YR6/2	60	10YR6/1	40	D	M	Silt loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Organic Bodies (A6) (LRR P, T, U)
- 5 cm Mucky Mineral (A7) (LRR P, T, U)
- Muck Presence (A8) (LRR U)
- 1 cm Muck (A9) (LRR P, T)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Coast Prairie Redox (A16) (MLRA 150A)
- Sandy Mucky Mineral (S1) (LRR O, S)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR P, S, T, U)

- Polyvalue Below Surface (S8) (LRR S, T, U)
- Thin Dark Surface (S9) (LRR S, T, U)
- Loamy Gleyed Matrix (F1) (LRR O)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Marl (F10) (LRR U)
- Depleted Ochric (F11) (MLRA 151)
- Iron Manganese Masses (F12) (LRR O, P, T)
- Umbric Surface (F13) (LRR P, T, U)
- Delta Ochric (F17) (MLRA 151)
- Reduced Vertic (F18) (MLRA 150A, 150B)
- Piedmont Floodplain Soils (F19) (MLRA 149A)
- Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR O)
- 2 cm Muck (A10) (LRR S)
- Reduced Vertic (F18) (outside MLRA 150A,B)
- Piedmont Floodplain Soils (F19) (LRR P, S, T)
- Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

³Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes x No _____

Remarks:

DP1 is located on the western boundary in the frost silt loam soil series. Soil observations from 7 to 18 inches below the surface revealed a depleted matrix, confirming the presence of hydric soil at DP1.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: ±83-acre Site for LED One Acadiana City/County: Youngsville/ Lafayette Parish Sampling Date: 9/26/2025
 Applicant/Owner: CSRS Inc./ Lafayette Parish State: Louisiana Sampling Point: DP2
 Investigator(s): J. Bradley Section, Township, Range: T11SR05E16
 Landform (hillslope, terrace, etc.) Terraces Local relief (concave, convex, none): Convex Slope (%): 0-1%
 Subregion (LRR or MLRA): MLRA 134 Lat: 30.08728 N Long: 91.97231 W Datum: UTM
 Soil Map Unit Name: Coteau Silt Loam NWI Classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes x No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u> </u> No <u>x</u> Hydric Soil Present? Yes <u> </u> No <u>x</u> Wetland Hydrology Present? Yes <u> </u> No <u>x</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>x</u>
Remarks: DP2 is located in the northeastern portion of the subject property near the northern boundary, within an upland area adjacent to the sugarcane field. No hydrologic indicators were observed, the vegetation was not dominated by hydrophytic species, and the soils were classified as non-hydric. According to the Antecedent Precipitation Tool (APT), the site was in a dry season, with weather conditions typical for this time of year.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Marl Deposits (B15) (LRR U) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Sphagnum moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes <u> </u> No <u>x</u> Depth (inches): <u> </u> Water Table Present? Yes <u> </u> No <u>x</u> Depth (inches): <u> </u> Saturation Present? Yes <u> </u> No <u>x</u> Depth (inches): <u> </u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u> </u> No <u>x</u>

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
 USGS 7.5-minute topographic map, aerial photographs

Remarks:
 No indicators of wetland hydrology were observed at the time of the site visit. DP2 is located in a well-drained portion of an agricultural field, with no evidence of surface water, soil saturation, or other hydrologic indicators such as drift lines or water staining. The site exhibited typical agricultural drainage patterns.

VEGETATION (Four Strata) - Use scientific names of plants.

Sampling Point DP2

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
50 % of total cover: _____		20 % of total cover: _____		
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> <u>0</u> FACW species <u>5</u> <u>10</u> FAC species <u>35</u> <u>105</u> FACU species <u>40</u> <u>160</u> UPL species <u>0</u> <u>0</u> Column Totals: <u>80</u> <u>275</u> (B) Prevalence Index = B/A = <u>3.44</u>
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
50% of total cover _____		20 % of total cover: _____		
Herb Stratum (Plot size: _____)				
1. <u>Cynodon dactylon</u>	25	Y	FACU	Hydrophytic Vegetation Indicators: ___ 1 – Rapid Test for Hydrophytic Vegetation ___ 2 – Dominance Test is > 50% ___ 3 – Prevalence Test is ≤ 3.0 ¹ ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Oplismenus hirtellus</u>	20	Y	FAC	
3. <u>Saccharum officinarum</u>	15	Y	FACU	
4. <u>Paspalum urvillei</u>	10	N	FAC	
5. <u>Calypocarpus vialis</u>	5	N	FAC	
6. <u>Setaria parviflora</u>	5	N	FACW	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
_____ = Total Cover				
50 % of total cover: _____		20 % of total cover: _____		
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Definitions of Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
50 % of total cover: _____		20 % of total cover: <u>0</u> .		
				Hydrophytic Vegetation Present? Yes _____ No <u>x</u>

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation at DP2 is dominated by Bermuda grass (*Cynodon dactylon*) and basketgrass (*Oplismenus spp.*). The area supports primarily non-hydrophytic vegetation, with scattered occurrences of wetland weed species. Representative photographs of the sampling location are provided in the appendix (Images 19 and 20).

SOIL

Sampling Point: DP2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-7	10YR4/2	80	10YR6/2	20	RM	PL&M	Silt loam	
7-15	10YR5/3	60	10YR5/2	40	RM	PL&M	Silt loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Organic Bodies (A6) (LRR P, T, U)
- 5 cm Mucky Mineral (A7) (LRR P, T, U)
- Muck Presence (A8) (LRR U)
- 1 cm Muck (A9) (LRR P, T)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Coast Prairie Redox (A16) (MLRA 150A)
- Sandy Mucky Mineral (S1) (LRR O, S)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR P, S, T, U)

- Polyvalue Below Surface (S8) (LRR S, T, U)
- Thin Dark Surface (S9) (LRR S, T, U)
- Loamy Gleyed Matrix (F1) (LRR O)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Marl (F10) (LRR U)
- Depleted Ochric (F11) (MLRA 151)
- Iron Manganese Masses (F12) (LRR O, P, T)
- Umbric Surface (F13) (LRR P, T, U)
- Delta Ochric (F17) (MLRA 151)
- Reduced Vertic (F18) (MLRA 150A, 150B)
- Piedmont Floodplain Soils (F19) (MLRA 149A)
- Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR O)
- 2 cm Muck (A10) (LRR S)
- Reduced Vertic (F18) (outside MLRA 150A,B)
- Piedmont Floodplain Soils (F19) (LRR P, S, T)
- Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

³Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Hard clay
 Depth (inches): 15 inches

Hydric Soil Present? Yes _____ No x

Remarks:

DP2 is located within the Coteau silt loam soil series, which is classified as non-hydric. At the time of the site visit, few redoximorphic features were observed. A restrictive clay layer was encountered at approximately 15 inches below the surface.

Appendix C

Photographic Documentation





1. Overview of Subject Property (83-acre site)



2. Northern Boundary



3. Western Boundary



4. Eastern Boundary



5. Southern Boundary



6. S1 – Roadside ditch on western boundary



7. S2 – Ephemeral agricultural drainage ditch



8. S3 – Ephemeral agricultural drainage ditch



9. S4 – Bayou located on eastern boundary



10. S5 – Ephemeral agricultural drainage ditch



11. S6 – Roadside ditch on northern boundary



12. S7 – Intermittent municipal drainage ditch



13. Representative connection between subject property and S1



14. Representative connection between subject property and S4



15. Representative fire hydrant and culvert on the subject property



16. DP1 habitat view



17. DP1 soils



18. DP1 soils



19. DP2 habitat view



20. DP2 soils

Appendix D

Supplemental Information



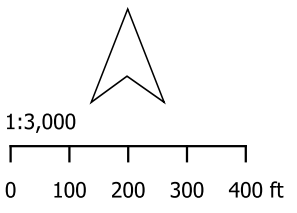
 Delineation Boundary

South Larriviere Road

Mayor Lucas
Denais Drive




Site
Location



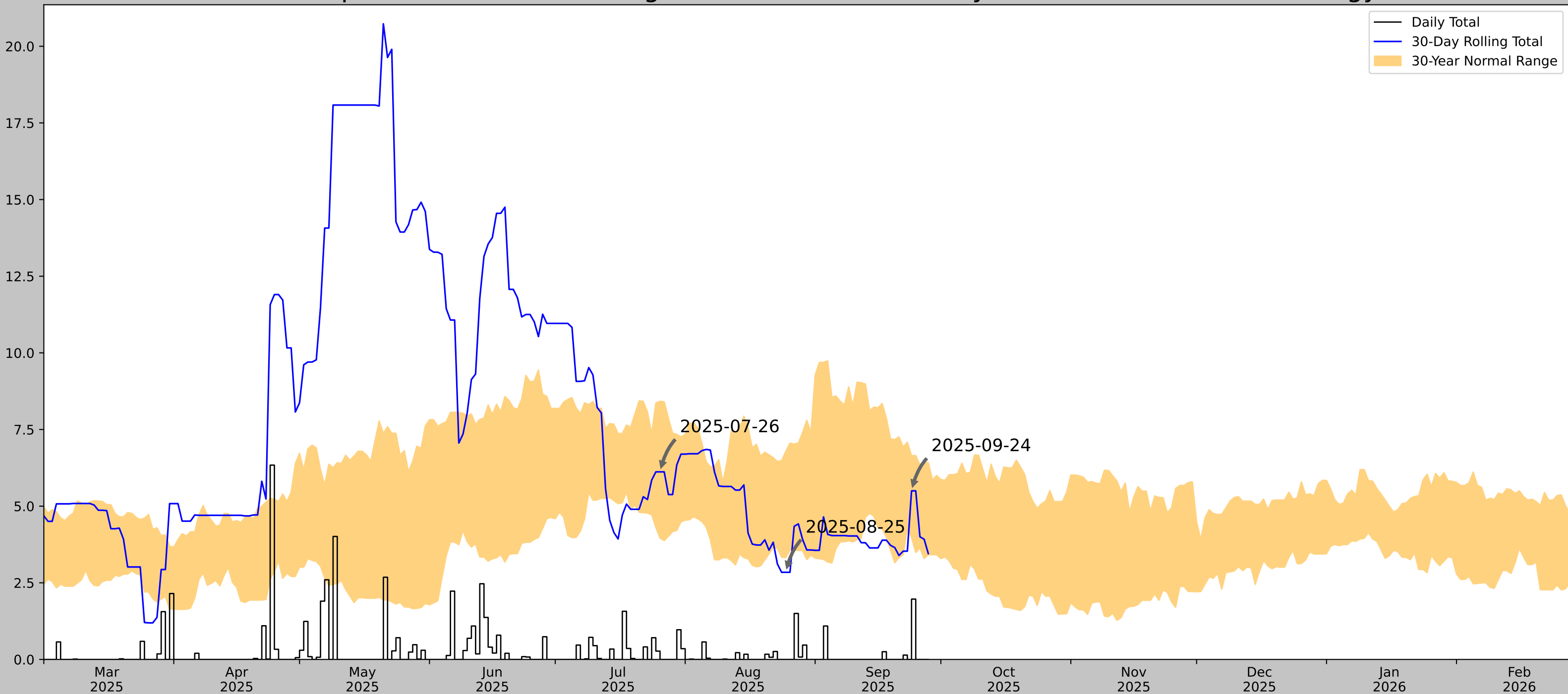
**Wetland Delineation 1998 IR Map
Chemin 3 Site
One Acadiana
Lafayette Parish, Louisiana**

Notes:

CHENIER 
Data Source: Chenier
Environmental Consulting, LLC
Imagery: 1998 DOQQ IR
Map Date: December 8, 2025
Created By: Brad Griffin

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network


Rainfall (Inches)




Coordinates	30.08212, -91.97351
Observation Date	2025-09-24
Elevation (ft)	28.186
Drought Index (PDSI)	Incipient wetness (2025-08)
WebWIMP H ₂ O Balance	Dry Season

30 Days Ending	30 th %ile (in)	70 th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2025-09-24	3.981102	6.648425	5.5	Normal	2	3	6
2025-08-25	3.321654	6.785433	2.84252	Dry	1	2	2
2025-07-26	3.955906	8.422835	6.11811	Normal	2	1	2
Result							Normal Conditions - 10

Figures and tables made by the
Antecedent Precipitation Tool
Version 3.0



US Army Corps
of Engineers.



ERDC
ENGINEERING RESEARCH AND DEVELOPMENT CENTER

Developed by:
U.S. Army Corps of Engineers and
U.S. Army Engineer Research and
Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
LAFAYETTE RGNL AP	30.1986, -91.9894	35.105	8.104	6.919	3.703	11340	90
LAFAYETTE 3.5 SSE	30.17, -92.0016	32.152	2.106	2.953	0.954	1	0
LAFAYETTE	30.2192, -92.065	24.934	4.733	10.171	2.178	1	0
SCOTT 1.0 N	30.2521, -92.0889	35.105	6.996	0.0	3.148	7	0
CARENCRO	30.32, -92.0444	35.105	9.007	0.0	4.053	4	0