

Exhibit EE:

Whitehall Industrial Site Wetlands Delineation Report



LOUISIANA CENTRAL
Industry & Entrepreneurship



Chenier Environmental Consulting, LLC

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January 5, 2024

Mr. Dan Purvis
Louisiana Central
1302 Murray Street
Alexandria, LA 71301

Whitehall Industrial Site Wetlands Delineation Report

Via e-mail: dpurvis@louisiana-central.com

Subject: Wetland Delineation Report
Whitehall Industrial Site, Concordia Parish
Chenier Project No: 23-236

Dear Mr. Purvis,

Chenier Environmental Consultants, LLC (Chenier) is pleased to submit this wetland delineation report on the Whitehall Industrial Site in Concordia Parish, Louisiana.

BACKGROUND

This report presents field data, habitat descriptions, and other pertinent information on the three diagnostic characteristics of wetlands. This report was prepared in accordance with the *Corps of Engineers Wetlands Delineation Manual* (U.S. Army Corps of Engineers, Waterways Experiment Station 1987) and subsequent guidance provided in the Regional Supplement to the *Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region* (U.S. Army Corps of Engineers, Wetland Regulatory Assistance Program 2010). Chenier Environmental biologists visited the Site on December 19, 2023 and January 2, 2024, and collected field data on three diagnostic parameters- soils, vegetation, and hydrology.

Prior to field reconnaissance, Chenier reviewed the United States Department of Agriculture (USDA) Web Soil Survey (<https://websoilsurvey.nrcs.usda.gov/app/>), United States Geological Survey (USGS) 7.5-minute topographic maps, and relevant aerial photography. Included for your review are: **Attachment A: Figure 1**-Vicinity Map; **Figure 2**-Wetland Delineation Map; **Exhibit 1**-Site Photographs, **Exhibit 2**-Routine Wetland Determination Forms-Atlantic and Gulf Coastal Plain Region, and **Exhibit 3**-Stream Data Forms.

Project Location and Description

The approximately 520-acre Site is located off LA 131 southwest of Vidalia in Concordia Parish, Louisiana (**Figure 1**). The Site is bordered by agricultural fields and the Vidalia Canal to the

north; LA 131 then the Mississippi River to the south; agricultural fields to the east; and DA Biglane Road then agricultural fields to the west. Access is via LA 131 and DA Biglane Road. The Site is predominantly farmland that was recently planted with soybeans. Based on a review of historical USGS topographic maps, the Site appears to have been part of the Whitehall Plantation and used as agricultural land since at least the early 1900s.

Soils

The NRCS Web Soil Survey was used to determine mapped soil series. The revised official series descriptions were used to confirm profile matrix, redox features, and texture of soils underlying the Site. The Web Soil Survey shows that the Site may be underlain by Commerce silt loam, Commerce silty clay loam, Sharkey clay, and Bruin silt loam (NRCS Web Soil Survey 2023). **Table 1** shows the soil map unit name, soil unit percentage for the site, and the hydric status of the soil.

Table 1: NRCS Web Soil Survey Data

Map Unit Name	Soil Unit Site Percentage	Hydric Status
Commerce silt loam (Ca)	49	Hydric (Sharkey)
Bruin silt loam (Bn)	12	Hydric
Commerce silty clay loam (Cm)	20	Hydric
Sharkey clay (Sh)	19	Hydric

Vegetation

The Site is an agricultural field that was recently planted with soybeans. The unplanted edges of the field, dirt roads and turnrows are colonized by typical facultative upland (FACU) species including *Lolium perenne* (perennial ryegrass), *Trifolium repens* (white clover), and *Geranium carolinianum* (Carolina geranium). A complete list of dominant species is included in the attached Routine Wetland Determination Data Forms (**Exhibit 2**). The wetland criterion for a prevalence of hydrophytic vegetation was not met at any of the sample locations established by Chenier to characterize the Site.

Hydrology

The Site is in the Lower Red River Basin within the Bayou Cocodrie subbasin (HUC) 08040306 approximately 0.5 mile west of the Mississippi River. A network of ditches drain the agricultural fields. These ditches flow via subsurface pipes into the Vidalia Canal to the northeast and Whitehall Lake to the south (Figure 2). No primary or secondary wetland hydrology indicators were observed at DP1 through DP4. Copies of Stream Data Forms are included in Exhibit 3.

Conclusions

Most of the Site is a well-drained agricultural field. Positive evidence of all three diagnostic characteristics for wetlands was not observed at any of the sample locations established by Chenier. No wetlands were identified on the Site. Seven intermittent agricultural drainage ditches were identified (Figure 2). These appear to be jurisdictional Waters of the U.S.

Should you have any questions about the report, please contact me at 225-235-9557 or via email at Aaronbass@chenierenvironmental.com.

Sincerely,

Chenier Environmental Consulting, LLC



Aaron S. Bass, Ph.D.

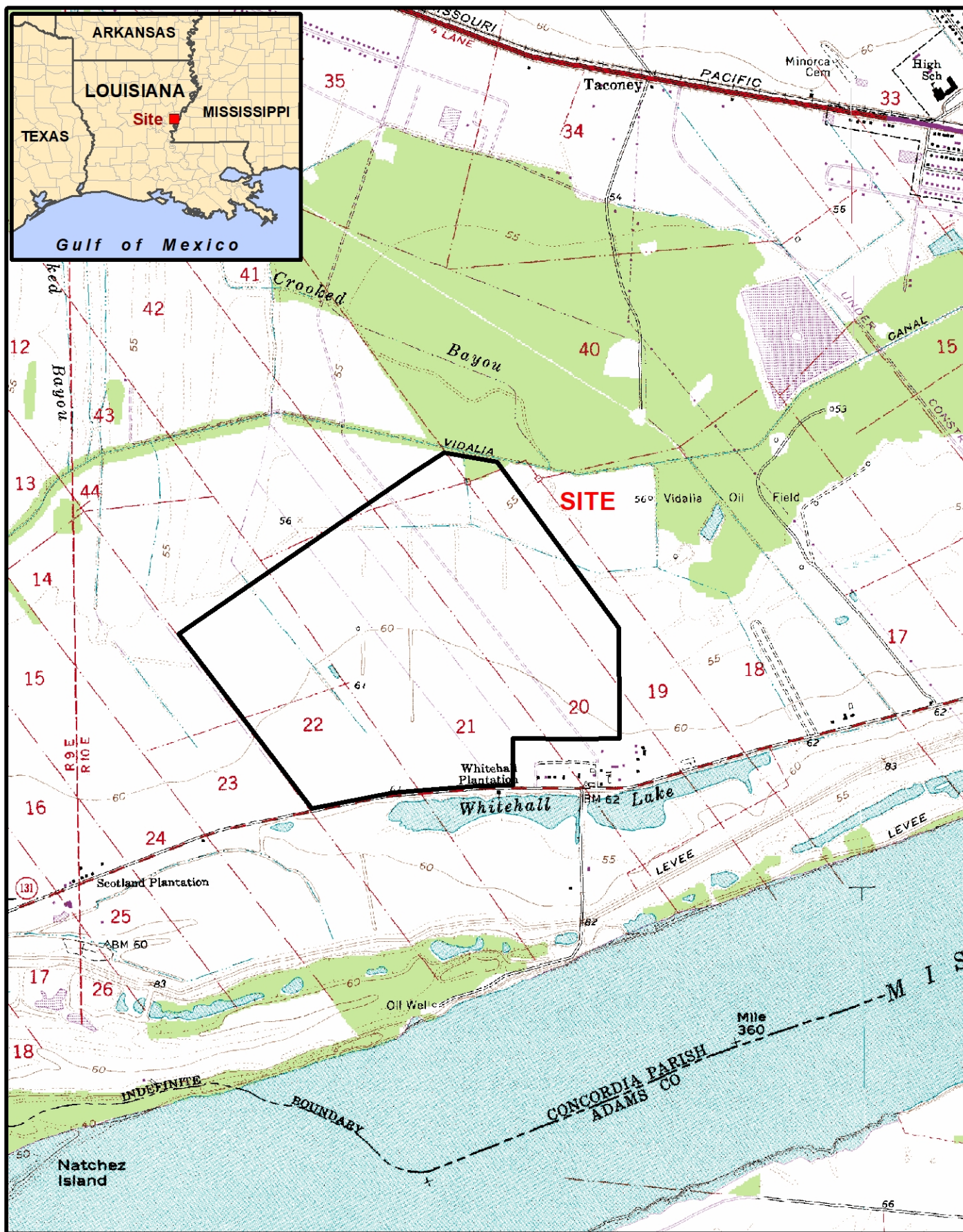
Chenier Environmental Consulting, LLC

4607 Bluebonnet, Blvd. Suite A

Baton Rouge, Louisiana 70809

ATTACHMENT A

FIGURES



Map Scale: 1:24,000
1 Inch = 2,000 Feet

0 500 1,000 2,000 Feet



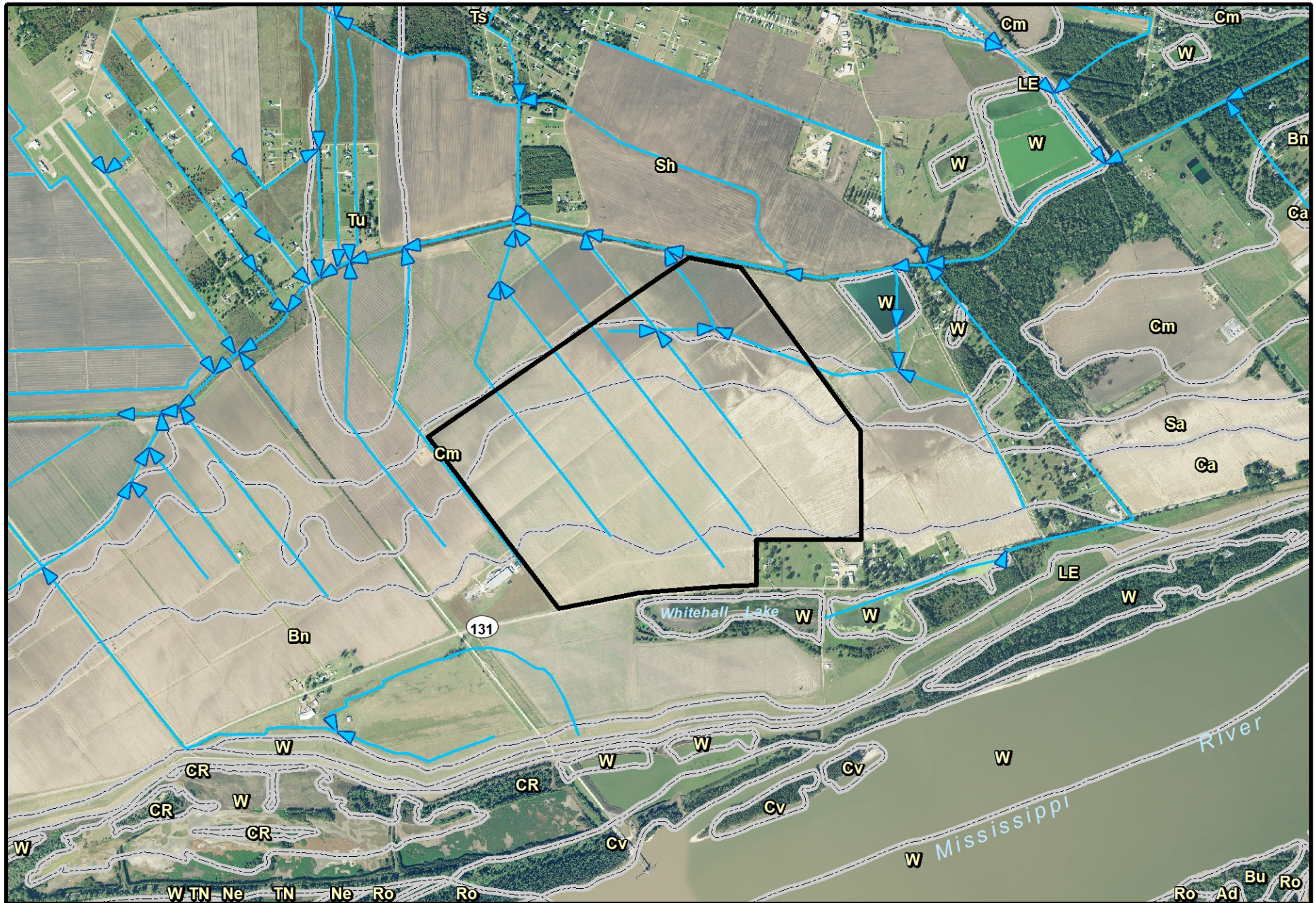
FIGURE 1 - Vicinity Map

Wetland Delineation
Whitehall Industrial Site
Concordia Parish, Louisiana
Louisiana Central

Date: 01/05/2024
Map ID: CMS2023-067

Source: State of Louisiana; Projection: UTM Z15N, NAD 83; 1:24,000 USGS Quadrangle Map

**Chenier Environmental
Consulting, LLC**



LEGEND

- Project Area
- ~> USGS NHD Stream
- NRCS Soils (SSURGO)

Figure 2 - Existing Conditions Map
Wetland Delineation
Whitehall Industrial Site
Concordia Parish, Louisiana
Louisiana Central

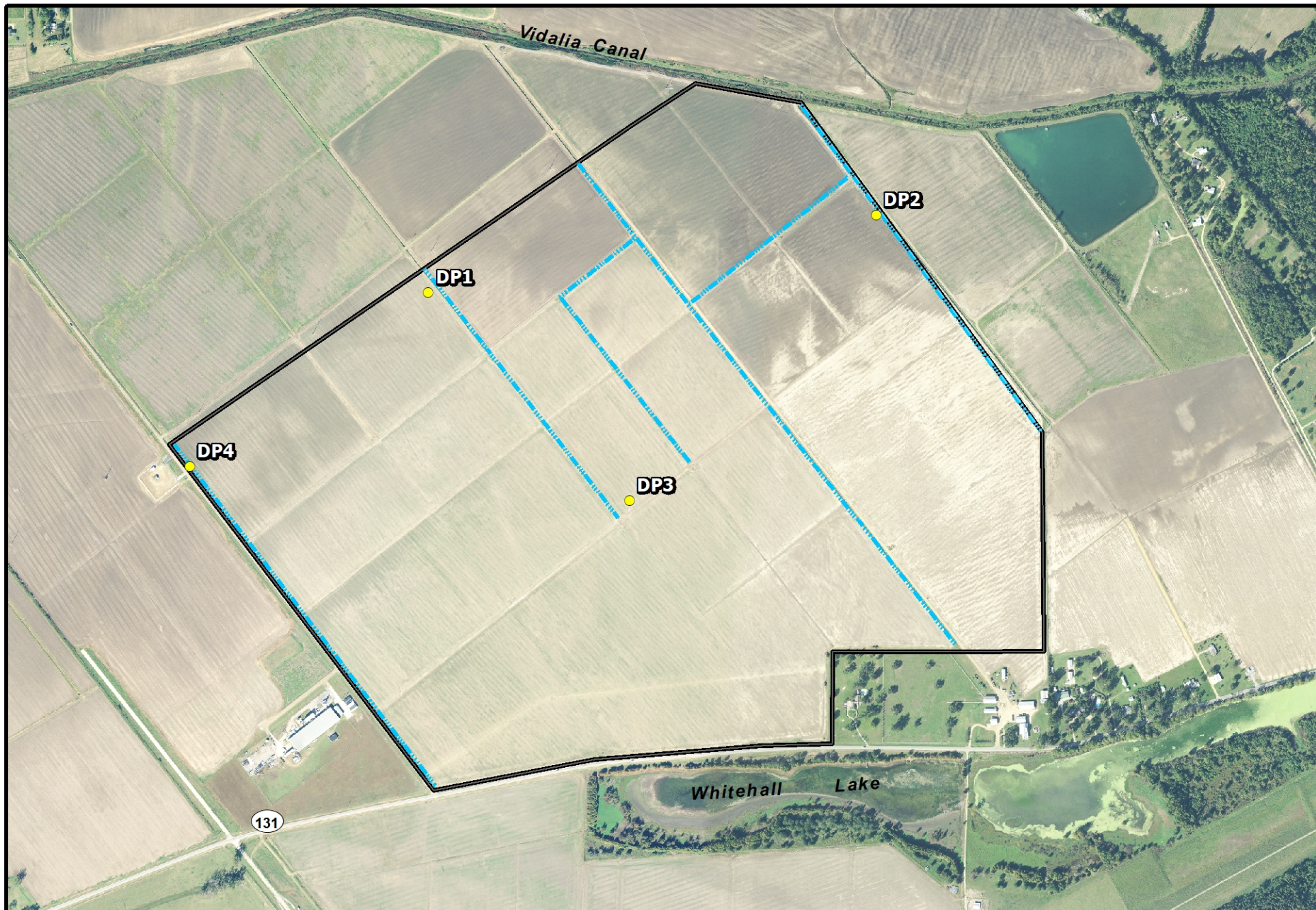
Map Scale: 1:24,000
1 Inch = 2,000 Feet

0 1,000 2,000 Feet

Date: 01/05/2024
Map ID: CMS2023-068



**Chenier Environmental
Consulting, LLC**



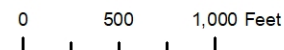
LEGEND

- Project Area
- Data Point
- Wetlands (0.0 ac.)
- Non-Jurisdictional Wetlands (0.0 ac.)
- Jurisdictional Other Waters of the U.S. (3.3 linear miles)
- Other Waters of the U.S. (0.0 linear miles)

Figure 3 - Wetland Delineation Map

Wetland Delineation
Whitehall Industrial Site
Concordia Parish, Louisiana
Louisiana Central

Map Scale: 1:12,000
1 Inch = 1,000 Feet



Date: 01/05/2024
Map ID: CMS2023-069

**Chenier Environmental
Consulting, LLC**



LEGEND  Project Area

LiDAR Elevation Map
Wetland Delineation
Whitehall Industrial Site
Concordia Parish, Louisiana
Louisiana Central

Map Scale: 1:12,000
1 Inch = 1,000 Feet
0 500 1,000 Feet

Date: 01/05/2024
Map ID: CMS2023-070

**Chenier Environmental
Consulting, LLC**



LEGEND  Project Area

CIR Aerial Photo Map
Wetland Delineation
Whitehall Industrial Site
Concordia Parish, Louisiana
Louisiana Central

Map Scale: 1:12,000
1 Inch = 1,000 Feet

0 500 1,000 Feet

Date: 01/05/2024
Map ID: CMS2023-071



**Chenier Environmental
Consulting, LLC**

EXHIBIT 1

SITE PHOTOGRAPHS



1. View of site facing east along LA 131



2. Typical view of the site



3. Drain pipe along the south side of the site



4. Drain pipe and culvert that flows beneath LA 131 to Whitehall Lake



5. DP1



6. DP1 Soils



7. DP1 soil



8. DP2



9. DP2 soil



10. DP2 soil



11. DP3



12. DP3 soil



13. DP3 soil



14. DP4



15. DP4 soil



16. DP4 soil



17. S1



18. S2



19. Typical field drain pipe



20. S4



21. S5



22. S5 outfall into Vidalia Canal



23. S6



24. S7

EXHIBIT 2

ROUTINE WETLAND DETERMINATION DATA FORMS

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Whitehall Industrial Site City/County: Concordia Parish Sampling Date: 1/2/2024
Applicant/Owner: Louisiana Central/Louisiana Economic Development State: Louisiana Sampling Point: DP1
Investigator(s): A. Bass Section, Township, Range: Section 42 T7N R10E
Landform (hillslope, terrace, etc.): Agricultural field Local relief (concave, convex, none): none Slope (%): 0-2
Subregion (LRR or MLRA): LRR O Lat: 31° 33.411'0-2 Long: 091° 29.138' Datum: UTM
Soil Map Unit Name: Sharkey clay NWI Classification: Not applicable
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
Are Vegetation ☐, Soil ☐, or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ 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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks: Drought conditions existed at the time of the data collection. Data point is located in an unplanted dirt road/turnrow adjacent to S4. The area is an agricultural field that has been significantly disturbed by normal farming practices.		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<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"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Marl Deposits (B15) (LRR U)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> FAC-Neutral Test (D5)
		<input type="checkbox"/> Sphagnum moss (D8) (LRR T, U)
Field Observations:		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/>		
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/>		
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/> (includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: USGS 7.5-minute topographic map, aerial photographs		
Remarks:		

Sampling Point DP-1

Dominance Test worksheet:			
Tree Stratum (Plot size: <u> </u> ft radius)			
1. <u>N/A</u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>
		<u> </u> = Total Cover	
50 % of total cover: <u> </u>		20 % of total cover: <u> </u>	
Sapling/Shrub Stratum (Plot size: <u> </u> ft radius)			
1. <u>N/A</u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>
		<u> </u> = Total Cover	
50% of total cover <u> </u>		20 % of total cover: <u> </u>	
Herb Stratum (Plot size: <u> </u> ft radius)			
1. <u>Trifolium repens (white clover)</u>	<u>25</u>	<u>Y</u>	<u>FACU</u>
2. <u>Lolium perenne (perennial ryegrass)</u>	<u>25</u>	<u>Y</u>	<u>FACU</u>
3. <u>Geranium carolinianum (Carolina geranium)</u>	<u>25</u>	<u>Y</u>	<u>FACU</u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>
11. <u> </u>	<u> </u>	<u> </u>	<u> </u>
12. <u> </u>	<u> </u>	<u> </u>	<u> </u>
		<u>75</u> = Total Cover	
50 % of total cover: <u>37.5</u>		20 % of total cover: <u>15</u>	
Woody Vine Stratum (Plot size: <u> </u> ft radius)			
1. <u>N/A</u>	<u> </u>	<u> </u>	<u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
		<u> </u> = Total Cover	
50 % of total cover: <u> </u>		20 % of total cover: <u>0.</u>	
Remarks: (Include photo numbers here or on a separate sheet.)			
Photos: 5, 6, 7			

SOIL

Sampling Point: DP-1

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		
0-21	10YR 4/3	100					silty	Brown disturbed soil

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: N/A

Depth (inches): N/A

Hydric Soil Present?

Yes _____ No **X**

Remarks:

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Whitehall Industrial Site City/County: Concordia Parish Sampling Date: 1/2/2024
Applicant/Owner: Louisiana Central/Louisiana Economic Development State: Louisiana Sampling Point: DP2
Investigator(s): A. Bass Section, Township, Range: Section 19 T7N R10E
Landform (hillslope, terrace, etc.): Agricultural field Local relief (concave, convex, none): none Slope (%): 0-2
Subregion (LRR or MLRA): LRR O Lat: 31° 33.438' Long: 091° 29.428" Datum: UTM
Soil Map Unit Name: Sharkey clay NWI Classification: Not applicable

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
Are Vegetation ☐, Soil ☐, or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ 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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks: Drought conditions existed at the time of the data collection The site is an agricultural field that has been disturbed by normal farming practices.	

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<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"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Marl Deposits (B15) (LRR U)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> FAC-Neutral Test (D5)
		<input type="checkbox"/> Sphagnum moss (D8) (LRR T, U)
Field Observations:		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/>		
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/>		
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/> (includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: USGS 7.5-minute topographic map, aerial photographs		
Remarks:		

Tree Stratum (Plot size: <u>ft radius</u>)				Dominance Test worksheet:	
	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>N/A</u>				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)	
2. _____				Total Number of Dominant Species Across All Strata: <u>1</u> (B)	
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)	
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ FACW species _____ FAC species _____ FACU species _____ UPL species _____ Column Totals: _____ (B)	
50 % of total cover: _____ 20 % of total cover: _____					
Sapling/Shrub Stratum (Plot size: <u>ft radius</u>)					
1. <u>N/A</u>					
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
_____ = Total Cover				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)	
50 % of total cover _____ 20 % of total cover: _____					
Herb Stratum (Plot size: <u>ft radius</u>)					
1. <u>Lolium perenne</u>	<u>75</u>	<u>Y</u>	<u>FACU</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
2. _____					
3. _____				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.	
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
12. _____					
_____ = Total Cover					
50 % of total cover: _____ 20 % of total cover: _____					
Woody Vine Stratum (Plot size: <u>ft radius</u> s)					
1. _____				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	
2. _____					
3. _____					
4. _____					
5. _____					
_____ = Total Cover					
50 % of total cover: _____ 20 % of total cover: <u>0.</u>					
Remarks: (Include photo numbers here or on a separate sheet.) Photos 8, 9, and 10					

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		
0-3	10YR 4/3	100					silt	Brown disturbed soil
4-21	10YR 3/2	75	10YR 4/6			RM	Silty clay	Reddish mottles

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:

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Whitehall Industrial Site City/County: Concordia Parish Sampling Date: 1/2/2024
Applicant/Owner: Louisiana Central/Louisiana Economic Development State: Louisiana Sampling Point: DP3
Investigator(s): A. Bass Section, Township, Range: Section 21 T7N R10E
Landform (hillslope, terrace, etc.): Agricultural field Local relief (concave, convex, none): none Slope (%): 0-2
Subregion (LRR or MLRA): LRR O Lat: 31° 33.059 Long: 091° 28.826' Datum: UTM
Soil Map Unit Name: Commerce silt loam NWI Classification: Not applicable
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
Are Vegetation ☐, Soil ☐, or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ 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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks: Drought conditions existed at the time of the data collection. The site is an agricultural field that has been disturbed by normal farming practices.	

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<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"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Marl Deposits (B15) (LRR U)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> FAC-Neutral Test (D5)
		<input type="checkbox"/> Sphagnum moss (D8) (LRR T, U)
Field Observations:		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/>		
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/>		
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/> (includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: USGS 7.5-minute topographic map, aerial photographs		
Remarks:		

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>ft radius</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</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>0</u> (A/B)
1. <u>N/A</u>				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
_____ = Total Cover				
50 % of total cover: _____	20 % of total cover: _____			
Sapling/Shrub Stratum (Plot size: <u>ft radius</u>)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ FACW species _____ FAC species _____ FACU species _____ UPL species _____ Column Totals: _____ (B) Prevalence Index = B/A = _____
1. <u>N/A</u>				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
_____ = Total Cover				
50 % of total cover _____	20 % of total cover: _____			
Herb Stratum (Plot size: <u>ft radius</u>)				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.
1. <u>Geranium carolinianum</u>	<u>75</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Lolium perenne</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
_____ = Total Cover				
50 % of total cover: <u>42.5</u>	20 % of total cover: _____			
Woody Vine Stratum (Plot size: <u>ft radius</u> s)				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.
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
_____ = 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.)				
Photos: 11, 12 and 13				

SOIL

Sampling Point: DP3

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		
0-6	10YR 4/3	100					silt	brown
6-21	10YR 4/3	75	10YR 4/6	25	D	M	Silty clay	Reddish mottles

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 _____ No ☒ X

Remarks:

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Whitehall Industrial Site City/County: Concordia Parish Sampling Date: 1/2/2024
Applicant/Owner: Louisiana Central/Louisiana Economic Development State: Louisiana Sampling Point: DP-4
Investigator(s): A. Bass Section, Township, Range: Section 21 T7N R10E
Landform (hillslope, terrace, etc.): Agricultural field Local relief (concave, convex, none): none Slope (%): 0-2
Subregion (LRR or MLRA): LRR O Lat: 31° 33.182 Long: 091° 29.493' Datum: UTM
Soil Map Unit Name: Commerce silty clay loam NWI Classification: Not applicable
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ 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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks: Drought conditions existed at the time of the data collection The area is an agricultural field that has been significantly disturbed by normal farming practices.		

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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/> Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <input type="text"/> (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: USGS 7.5-minute topographic map, aerial photographs		
Remarks:		

Tree Stratum (Plot size: <u>ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>N/A</u>				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</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>0</u> (A/B)
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ FACW species _____ FAC species _____ FACU species _____ UPL species _____ Column Totals: _____ (B) Prevalence Index = B/A = _____
50 % of total cover: _____			20 % of total cover: _____	
Sapling/Shrub Stratum (Plot size: <u>ft radius</u>)				
1. <u>N/A</u>				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
_____ = Total Cover				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.
50% of total cover _____			20 % of total cover: _____	
Herb Stratum (Plot size: <u>ft radius</u>)				
1. <u>Lolium perenne</u>	<u>25</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Geranium carolinianum</u>	<u>25</u>	<u>Y</u>	<u>FACU</u>	
3. <u>Rumex obtusifolius</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
_____ = Total Cover				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.
50 % of total cover: <u>27.5</u>			20 % of total cover: _____	
Woody Vine Stratum (Plot size: <u>ft radius</u> s)				
1. <u>N/A</u>				
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.)				
Photos: 14, 15 and 16				

SOIL

Sampling Point: DP4

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		
0-2	10YR 4/3						silty	Some roots
3-6	10YR 4/3						silty	brown
7-21	10YR 3/2	75	10YR 3/6	25	RM	M		Dark red mottles

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 ☐ Y No ☐

Remarks:

EXHIBIT 3
STREAM DATA FORMS

STREAM DATA FORM

Project/Site:	Whitehall Industrial Site	Sampling Date:	12/19/2023
Applicant/Owner:	Louisiana Central	Parish:	Concordia
Investigators:	Aaron Bass	State:	Louisiana
Name:	S1	Sampling Point:	S1
Existing Condition:	Dry drainage ditch		

CHARACTERISTICS

Bank Width (ft):	12 feet	Bank Height (ft):	2.5 feet
Water Depth:	0 (dry)	Flow Direction:	Southeast

PHOTOGRAPHS

ID	Direction / Description
Photo 17	North/dry roadside agricultural ditch

COMMENTS

Bottom channel width: 3 feet

Plant Species

Ambrosia (ragweed), *Rubus* (blackberry)

STREAM DATA FORM

Project/Site:	Whitehall Industrial Site	Sampling Date:	12/19/2023
Applicant/Owner:	Louisiana Central	Parish:	Concordia
Investigators:	Aaron Bass	State:	Louisiana
Name:	S2/S3	Sampling Point:	S2/S3
Existing Condition:	Drainage ditch		

CHARACTERISTICS

Bank Width (ft):	12 feet	Bank Height (ft):	2.5 feet
Water Depth:	0-6 inches	Flow Direction:	east

PHOTOGRAPHS

ID	Direction / Description
Photo 18	Southwest/agricultural ditch

COMMENTS

Bottom channel width: 5 feet

Plant Species

Ambrosia (ragweed), *Rubus* (blackberry)

STREAM DATA FORM

Project/Site:	Whitehall Industrial Site	Sampling Date:	1/2/2024
Applicant/Owner:	Louisiana Central	Parish:	Concordia
Investigators:	Aaron Bass	State:	Louisiana
Name:	S4	Sampling Point:	S4
Existing Condition:	Drainage ditch		

CHARACTERISTICS

Bank Width (ft):	18 feet	Bank Height (ft):	5 feet
Water Depth:	1-2 feet	Flow Direction:	Northwest

PHOTOGRAPHS

ID	Direction / Description
Photo 20	Northwest/agricultural ditch

COMMENTS

Bottom channel width: 6 feet

Plant Species

Ambrosia (ragweed), *Rubus* (blackberry)

STREAM DATA FORM

Project/Site:	Whitehall Industrial Site	Sampling Date:	1/2/2024
Applicant/Owner:	Louisiana Central	Parish:	Concordia
Investigators:	Aaron Bass	State:	Louisiana
Name:	S5	Sampling Point:	S5
Existing Condition:	Drainage ditch		

CHARACTERISTICS

Bank Width (ft):	21 feet	Bank Height (ft):	8 feet
Water Depth:	0-2 feet	Flow Direction:	East

PHOTOGRAPHS

ID	Direction / Description
Photo 21	West/agricultural ditch
Photo 22	East/outfall into Vidalia Canal

COMMENTS

Bottom channel width: 4 feet

Plant Species

Ambrosia (ragweed), Rubus (blackberry)

STREAM DATA FORM

Project/Site:	Whitehall Industrial Site	Sampling Date:	1/2/2024
Applicant/Owner:	Louisiana Central	Parish:	Concordia
Investigators:	Aaron Bass	State:	Louisiana
Name:	S6	Sampling Point:	S6
Existing Condition:	Drainage ditch		

CHARACTERISTICS

Bank Width (ft):	15 feet	Bank Height (ft):	4.5 feet
Water Depth:	0 feet	Flow Direction:	Northwest to S5

PHOTOGRAPHS

ID	Direction / Description
Photo 23	West/agricultural ditch

COMMENTS

Bottom channel width: 4 feet

Plant Species

Ambrosia (ragweed), *Rubus* (blackberry), *Rumex*

STREAM DATA FORM

Project/Site:	Whitehall Industrial Site	Sampling Date:	1/2/2024
Applicant/Owner:	Louisiana Central	Parish:	Concordia
Investigators:	Aaron Bass	State:	Louisiana
Name:	S7	Sampling Point:	S7
Existing Condition:	Roadside drainage ditch		

CHARACTERISTICS

Bank Width (ft):	15 feet	Bank Height (ft):	4.5 feet
Water Depth:	0-6 inches	Flow Direction:	Southeast

PHOTOGRAPHS

ID	Direction / Description
Photo 24	Southeast/Ditch along DA Biglane Road

COMMENTS

Bottom channel width: 6 feet

Plant Species

Ambrosia (ragweed), *Rubus* (blackberry), *Rumex*