

SOIL

Sampling Point: DP759

[illegible]

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Seabreeze Mitigation Bank 40-acre Parcel City/County: Chambers County Sampling Date: 4 Nov 2015
 Applicant/Owner: Wildwood Environmental Credit Company, LLC State: Texas Sampling Point: DP761
 Investigator(s): Lee Sherrod and Tony Vazquez Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): levee slope Local relief (concave, convex, none): Convex Slope (%): 0 - 1
 Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29.747470° Long: -94.373353° Datum: _____
 Soil Map Unit Name: Beaumont silty clay, 0 to 1 percent slopes, rarely flooded NWI classification: None
 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 checked="" type="checkbox"/> No <input 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:			

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <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 along 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)		Secondary Indicators (minimum of two required) <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): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (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:		
Remarks:		

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

Sampling Point: DP761

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <i>Quercus virginiana</i>	20	Yes	FACU	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80%</u> (A/B) Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = _____ Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. <i>Celtis laevigata</i>	10	Yes	FAC	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
30% = Total Cover				
50% of total cover: 15% 20% of total cover: 6%				
Sapling/Shrub Stratum (Plot size: _____)				
1. <i>Ilex vomitoria</i>	20	Yes	FAC	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. <i>Ligustrum sinense</i>	40	Yes	FAC	
3. <i>Triadica sebifera</i>	15	No	FAC	
4. <i>Baccharis halimifolia</i>	10	No	FAC	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
95% = Total Cover				
50% of total cover: 46% 20% of total cover: 16%				
Herb Stratum (Plot size: _____)				
1. <i>Rubus sauis</i>	30	Yes	FAC	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. <i>Solidago sempervirens</i>	5	No	FACW	
3. <i>Andropogon glomeratus</i>	5	No	FACW	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
40% = Total Cover				
50% of total cover: 20% 20% of total cover: 8%				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
0% = Total Cover				
50% of total cover: 0% 20% of total cover: 0%				
Remarks: (If observed, list morphological adaptations below).				

SOIL

Sampling Point: DP761

[illegible]

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Seabreeze Mitigation Bank 40-acre Parcel City/County: Chambers County Sampling Date: 4 Nov 2015
Applicant/Owner: Wildwood Environmental Credit Company, LLC State: Texas Sampling Point: DP764
Investigator(s): Lee Sherrod and Tony Vazquez Section, Township, Range: _____
Landform (hillslope, terrace, etc.): flood plain Local relief (concave, convex, none): flat Slope (%): 0
Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29.750412° Long: -94.375774° Datum: _____
Soil Map Unit Name: Beaumont silty clay, 0 to 1 percent slopes, rarely flooded NWI classification: None
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 checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required; check all that apply)			
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Marl Deposits (B15) (LRR U)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)	
<input checked="" type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres along 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:			
Surface Water Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0 - 1</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Water Table Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>Surface</u>		
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>Surface</u>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

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

Sampling Point: DP764

Tree Stratum (Plot size: _____)		Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>Fraxinus pennsylvanica</i>	30	Yes	FACW
2.	<i>Triadica sebifera</i>	10	No	FAC
3.	<i>Celtis laevigata</i>	20	Yes	FAC
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
		60% = Total Cover		
		50% of total cover: 30%	20% of total cover: 12%	
Sapling/Shrub Stratum (Plot size: _____)				
1.	<i>Mortia centifera</i>	20	Yes	FAC
2.	<i>Baccharis halimifolia</i>	15	Yes	FAC
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
		35% = Total Cover		
		50% of total cover: 18%	20% of total cover: 7%	
Herb Stratum (Plot size: _____)				
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
11.	_____	_____	_____	_____
12.	_____	_____	_____	_____
		0% = Total Cover		
		50% of total cover: 0%	20% of total cover: 0%	
Woody Vine Stratum (Plot size: _____)				
1.	<i>Rubus suus</i>	85	Yes	FAC
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
		85% = Total Cover		
		50% of total cover: 43%	20% of total cover: 17%	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of: _____ Multiply by: _____

OBL species _____ x 1 = _____

FACW species _____ x 2 = _____

FAC species _____ x 3 = _____

FACU species _____ x 4 = _____

UPL species _____ x 5 = _____

Column Totals: 0 (A) 0 (B)

Prevalence Index = B/A = 3.4

Hydrophytic Vegetation Indicators:

☐ 1 - Rapid Test for Hydrophytic Vegetation

☒ 2 - Dominance Test is >50%

☐ 3 - Prevalence Index is ≤3.0¹

☐ Problematic Hydrophytic Vegetation¹ (Explain)

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

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: (If observed, list morphological adaptations below).

SOIL

Sampling Point: DP764

[illegible]

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Seabreeze Mitigation Bank 40-acre Parcel City/County: Chambers County Sampling Date: 4 Nov 2015
 Applicant/Owner: Wildwood Environmental Credit Company, LLC State: Texas Sampling Point: DP765
 Investigator(s): Lee Sherrod and Tony Vazquez Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): flood plain Local relief (concave, convex, none): flat Slope (%): 0
 Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29.750714° Long: -94.375789° Datum: _____
 Soil Map Unit Name: Beaumont silty clay, 0 to 1 percent slopes, rarely flooded NWI classification: None
 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 checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required; check all that apply)			
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Marl Deposits (B15) (LRR U)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)	
<input checked="" type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres along 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:			
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Water Table Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>4</u>		
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>surface</u>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			
<u>Water marks 4"</u>			

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

Sampling Point: DP765

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <i>T. radica sebifera</i>	30	Yes	FAC	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A) Total Number of Dominant Species Across All Strata: <u>8</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = _____
2. <i>Ulmus americana</i>	10	Yes	FAC	
3. <i>Fraxinus pennsylvanica</i>	10	Yes	FACW	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
50% = Total Cover				
50% of total cover: <u>25%</u> 20% of total cover: <u>10%</u>				
Sapling/Shrub Stratum (Plot size: _____)				
1. <i>Viburnum dentatum</i>	10	Yes	FAC	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
2. <i>Baccharis halimifolia</i>	10	Yes	FAC	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
20% = Total Cover				
50% of total cover: <u>10%</u> 20% of total cover: <u>4%</u>				
Herb Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
0% = Total Cover				
50% of total cover: <u>0%</u> 20% of total cover: <u>0%</u>				
Woody Vine Stratum (Plot size: _____)				
1. <i>Rubus suus</i>	95	Yes	FAC	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
95% = Total Cover				
50% of total cover: <u>48%</u> 20% of total cover: <u>19%</u>				
Remarks: (If observed, list morphological adaptations below). 				

SOIL

Sampling Point: DP765

[illegible]

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Seabreeze Mitigation Bank 40-acre Parcel City/County: Chambers County Sampling Date: 4 Nov 2015
Applicant/Owner: Wildwood Environmental Credit Company, LLC State: Texas Sampling Point: DP766
Investigator(s): Lee Sherrod and Tony Vazquez Section, Township, Range: _____
Landform (hillslope, terrace, etc.): flood plain Local relief (concave, convex, none): flat Slope (%): 0
Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29.751422° Long: -94.375758° Datum: _____
Soil Map Unit Name: Beaumont silty clay, 0 to 1 percent slopes, rarely flooded NWI classification: None
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 checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Marl Deposits (B15) (LRR U)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres along 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:		
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>6</u>	
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>surface</u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

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

Sampling Point: DP766

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <i>T. radica sebifera</i>	30	Yes	FAC	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. <i>Acer rubrum</i>	10	No	FAC	
3. <i>Fraxinus pennsylvanica</i>	55	Yes	FACW	
4. <i>Ulmus americana</i>	5	No	FAC	
5. <i>Quercus virginiana</i>	5	No	FACU	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = _____
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
105% = Total Cover 50% of total cover: <u>53%</u> 20% of total cover: <u>21%</u>				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
Sapling/Shrub Stratum (Plot size: _____)				
1. <i>Morella cerifera</i>	10	Yes	FAC	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
12. _____	_____	_____	_____	
10% = Total Cover 50% of total cover: <u>5%</u> 20% of total cover: <u>2%</u>				
Herb Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
0% = Total Cover 50% of total cover: <u>0%</u> 20% of total cover: <u>0%</u>				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Woody Vine Stratum (Plot size: _____)				
1. <i>Rubus</i> sp.	95	Yes	FAC	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
95% = Total Cover 50% of total cover: <u>48%</u> 20% of total cover: <u>19%</u>				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: (If observed, list morphological adaptations below).				

SOIL

Sampling Point: DP766

[illegible]

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Seabreeze Mitigation Bank 40-acre Parcel City/County: Chambers County Sampling Date: 5 Nov 2015
 Applicant/Owner: Wildwood Environmental Credit Company, LLC State: Texas Sampling Point: DP773
 Investigator(s): Lee Sherrod and Tony Vazquez Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): flood plain Local relief (concave, convex, none): Concave Slope (%): 1
 Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29.752878° Long: -94.375188° Datum: _____
 Soil Map Unit Name: Beaumont silty clay, 0 to 1 percent slopes, rarely flooded NWI classification: None
 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 checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required; check all that apply)			
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Marl Deposits (B15) (LRR U)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input checked="" 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 along 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:			
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Water Table Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>1</u>		
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>Surface</u>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

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

Sampling Point: DP773

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <i>Fraxinus pennsylvanica</i>	40	Yes	FACW	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. <i>Ulmus crassifolia</i>	10	No	FAC	
3. <i>Ulmus rubra</i>	10	No	FAC	
4. <i>Trielica sebifera</i>	10	No	FAC	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
70% = Total Cover 50% of total cover: <u>35%</u> 20% of total cover: <u>14%</u>				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____)				
1. <i>Crataegus marshalli</i>	30	Yes	FAC	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
30% = Total Cover 50% of total cover: <u>15%</u> 20% of total cover: <u>6%</u>				
Herb Stratum (Plot size: _____)				
1. <i>Rubus suus</i>	25	Yes	FAC	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
25% = Total Cover 50% of total cover: <u>13%</u> 20% of total cover: <u>5%</u>				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
0% = Total Cover 50% of total cover: <u>0%</u> 20% of total cover: <u>0%</u>				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
Remarks: (If observed, list morphological adaptations below).				

SOIL

Sampling Point: DP773

[illegible]

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Seabreeze Mitigation Bank 40-acre Parcel City/County: Chambers County Sampling Date: 5 Nov 2015
Applicant/Owner: Wildwood Environmental Credit Company, LLC State: Texas Sampling Point: DP782
Investigator(s): Lee Sherrod and Tony Vazquez Section, Township, Range: _____
Landform (hillslope, terrace, etc.): flood plain Local relief (concave, convex, none): Concave Slope (%): 1
Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29.751578° Long: -94.374278° Datum: _____
Soil Map Unit Name: Beaumont silty clay, 0 to 1 percent slopes, rarely flooded NWI classification: None
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 checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Marl Deposits (B15) (LRR U)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres along 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 checked="" type="checkbox"/> No <input type="checkbox"/>
Surface Water Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-4</u>	
Water Table Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>Surface</u>	
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>Surface</u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

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

Sampling Point: DP782

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <i>Fraxinus pennsylvanica</i>	50	Yes	FACW	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = _____
2. <i>Celtis laevigata</i>	5	No	FAC	
3. <i>Ulmus rubra</i>	10	No	FAC	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
65% = Total Cover 50% of total cover: <u>33%</u> 20% of total cover: <u>13%</u>				
Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <i>Ligustrum sinense</i>	10	No	FAC	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
2. <i>Tridax sebifera</i>	60	Yes	FAC	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
70% = Total Cover 50% of total cover: <u>35%</u> 20% of total cover: <u>14%</u>				
Herb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <i>Rubus suus</i>	85	Yes	FAC	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
85% = Total Cover 50% of total cover: <u>43%</u> 20% of total cover: <u>17%</u>				
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
0% = Total Cover 50% of total cover: <u>0%</u> 20% of total cover: <u>0%</u>				
Remarks: (If observed, list morphological adaptations below).				

SOIL

Sampling Point: DP782

[illegible]

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Seabreeze Mitigation Bank 40-acre Parcel City/County: Chambers County Sampling Date: 5 Nov 2015
 Applicant/Owner: Wildwood Environmental Credit Company, LLC State: Texas Sampling Point: DP787
 Investigator(s): Lee Sherrod and Tony Vazquez Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): flood plain Local relief (concave, convex, none): Concave Slope (%): 1
 Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29.750453° Long: -94.374040° Datum: _____
 Soil Map Unit Name: Beaumont silty clay, 0 to 1 percent slopes, rarely flooded NWI classification: None
 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 checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required; check all that apply)			
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Marl Deposits (B15) (LRR U)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input checked="" 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 along 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:			
Surface Water Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-2</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Water Table Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>Surface</u>		
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>Surface</u>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

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

Sampling Point: DP787

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <i>Fraxinus pennsylvanica</i>	55	Yes	FACW	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = _____
2. <i>Celtis laevigata</i>	5	No	FAC	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
60% = Total Cover				
50% of total cover: <u>30%</u> 20% of total cover: <u>12%</u>				
Sapling/Shrub Stratum (Plot size: _____)				
1. <i>Triedica sebitera</i>	60	Yes	FAC	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) _____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <i>Crataegus marshallii</i>	5	No	FAC	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
65% = Total Cover				
50% of total cover: <u>33%</u> 20% of total cover: <u>13%</u>				
Herb Stratum (Plot size: _____)				
1. <i>Rubus suus</i>	75	Yes	FAC	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
75% = Total Cover				
50% of total cover: <u>38%</u> 20% of total cover: <u>15%</u>				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
0% = Total Cover				
50% of total cover: <u>0%</u> 20% of total cover: <u>0%</u>				
Remarks: (If observed, list morphological adaptations below)				

SOIL

Sampling Point: DP787

[illegible]

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Seabreeze Mitigation Bank 40-acre Parcel City/County: Chambers County Sampling Date: 5 Nov 2015
 Applicant/Owner: Wildwood Environmental Credit Company, LLC State: Texas Sampling Point: DP789
 Investigator(s): Lee Sherrod and Tony Vazquez Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): flood plain Local relief (concave, convex, none): Concave Slope (%): 1
 Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29.752529° Long: -94.375839° Datum: _____
 Soil Map Unit Name: Beaumont silty clay, 0 to 1 percent slopes, rarely flooded NWI classification: None
 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 checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required; check all that apply)			
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Marl Deposits (B15) (LRR U)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input checked="" 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 along 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:			
Surface Water Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-4</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Water Table Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>Surface</u>		
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>Surface</u>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

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

Sampling Point: DP789

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <i>Fraxinus pennsylvanica</i>	10	Yes	FACW	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B) Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = _____
2. <i>Taxodium distichum</i>	25	Yes	OBL	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
35% = Total Cover				
50% of total cover: <u>18%</u> 20% of total cover: <u>7%</u>				
Sapling/Shrub Stratum (Plot size: _____)				
1. <i>Triedica sebitera</i>	75	Yes	FAC	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) _____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <i>Salix nigra</i>	5	No	OBL	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
80% = Total Cover				
50% of total cover: <u>40%</u> 20% of total cover: <u>16%</u>				
Herb Stratum (Plot size: _____)				
1. <i>Rubus suus</i>	75	Yes	FAC	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
2. <i>Saururus cernuus</i>	5	No	OBL	
3. <i>Campsis radicans</i>	5	No	FAC	
4. <i>Hibiscus moscheutos</i>	10	No	OBL	
5. <i>Physalis angulata</i>	1	No	FACU	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
96% = Total Cover				
50% of total cover: <u>48%</u> 20% of total cover: <u>19%</u>				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
0% = Total Cover				
50% of total cover: <u>0%</u> 20% of total cover: <u>0%</u>				
Remarks: (If observed, list morphological adaptations below).				

SOIL

Sampling Point: DP789

[illegible]

APPENDIX D – JURISDICTIONAL DETERMINATION SUBMITTAL WEST TRACT



Environmental Services, Inc.

20 September 2016

Mr. John Davidson
Compliance Section
U.S. Army Corps of Engineers,
Galveston District, Regulatory Branch
P.O. Box 1229
Galveston, Texas 77553-1229

**RE: Proposed Seabreeze Mitigation Bank – 241± Acres West of SH 124
Chambers County, Texas
Section 404 Jurisdictional Determination
HJN 150158 WD**

Dear John,

In January of this year, we submitted a request to review previous PC information for a 241 ac ± parcel west of SH 124 and south of Spindletop Bayou in Chambers County south of Winnie/Stowell (Figure 1). That request submittal included a 1992 Certified Wetland Determination by the NRCS and a 2015 refusal by NRCS to prepare an updated determination. Also included was a brief cropping history.

We met with you and Kevin Mannie in early March to discuss that request. At that meeting you indicated that the 1992 Certified Wetland Determination made by NRCS was too old (pre-1998 soil mapping convention) to be considered valid by the USACE relative to a Section 404 jurisdictional determination.

We conducted an independent wetland determination on the property to compare to the 1992 NRCS determination. We did identify some differences in our opinion and provided that determination to the NRCS for reconsideration of their earlier determination. Upon review of our information, the NRCS concluded that there were errors in their previous determination and agreed to prepare a new Certified Wetland Determination for the entire Middleton Estate farm, which includes the subject 241-acre parcel as well as the 50-acre parcel east of SH 124 we previously submitted to your office.

The new NRCS determination is attached, along with our independent determination, and additional information on cropping history. We are asking your review of this new information to determine the validity of the PC determination relative to Section 404 jurisdiction.

Seabreeze MB PC.doc

CORPORATE HEADQUARTERS

1507 S Interstate 35 ★ Austin, Texas 78741-2502 ★ 512.328.2430 ★ www.horizon-esi.com
Certified WBE/HUB/DBE/SBE



Mr. Kenny Jaynes
HJN 150158 WD
15 January 2016
Page 2

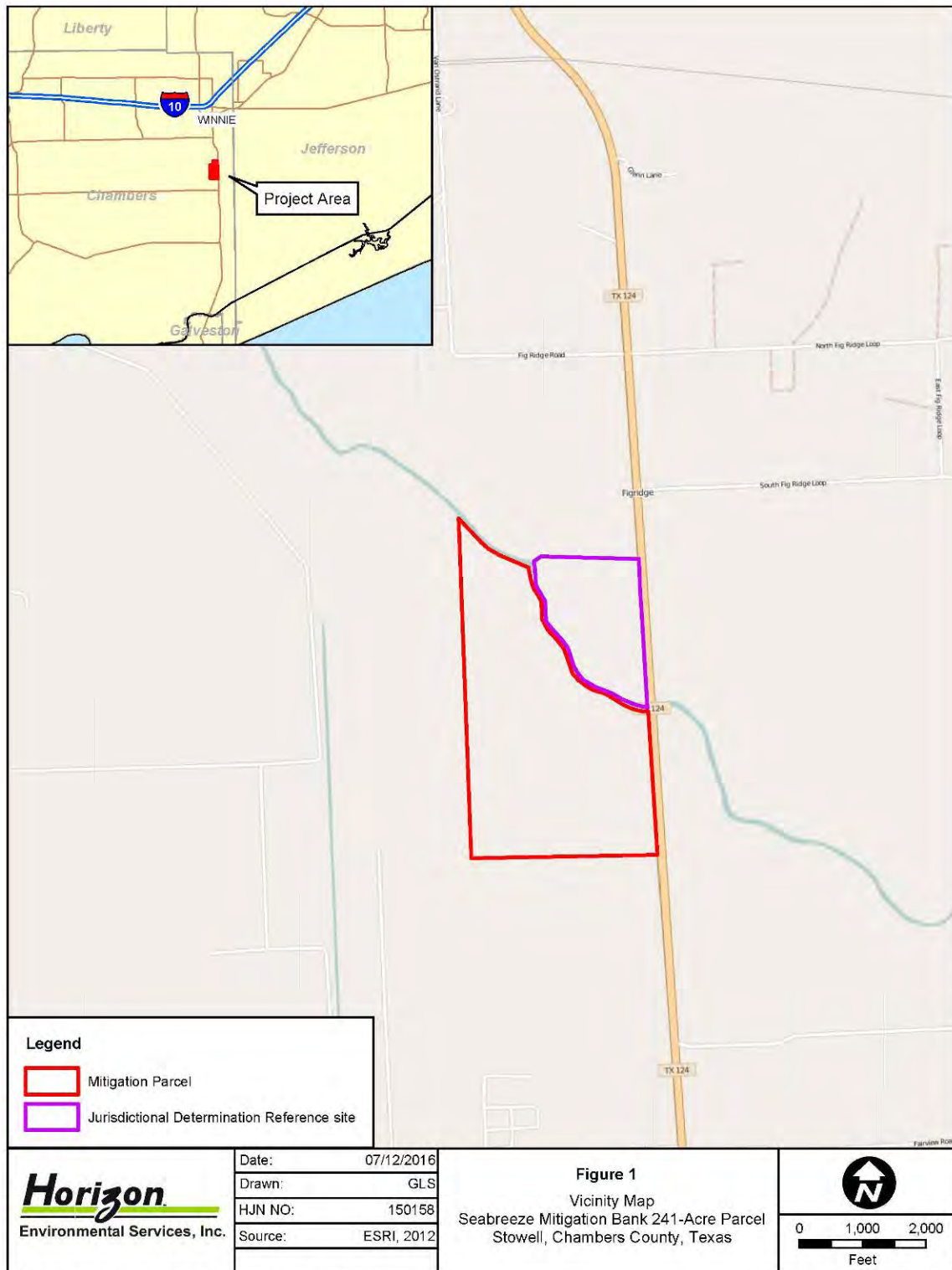
If you have any questions or require additional information please contact me at 512-328-2430.

Sincerely,

A handwritten signature in blue ink, reading "C. Lee Sherrod".

C. Lee Sherrod
Vice President

c: Cliff Sunda, Wildwood Credit Company



150158 - Stowell-Spindletop Mitigation Bank\Graphics\150158A01_Vicinity Map.mxd



Thursday, August 04, 2016
RE: Decision effective as of January 23, 1992

Estate of John Middleton
4306 Yoakum, Suite 540
Houston, Texas 77006

William York
P.O. Box 354
Stowell, Texas 77661

Request for Review – Certified Wetland Determination
Chambers County FSN 1606 Tract 5824

To all, including Electronic CC recipients:

Person, as defined in Title 7 Code of Federal Regulations Part 12 (7CFR12) § 12.2, submitted a Request for Review of a Certified Wetland Determination on Chambers County USDA FSN 1606 Tract 5824, Fields 9, 10 and 51 via a form CPA-38. The determination being cited was final as of January 23, 1992. I have reviewed the request and the report, and respond as follows:

Pursuant to the National Food Security Act Manual (NFSAM) Section 514.1 C (2), 7CFR12 § 12.30(c) (6) and 16 U.S.C. Sec. 3822(a) (4), a person may request review of a final certified wetland determination when:

- 1) If NRCS concurs with an affected person that an error exists in the current wetland determination.
- 2) A person must make all requests...in writing, stating...where NRCS error is cited...
 - a. what the error is, and
 - b. how it affects the final certified wetland determination validity.

The request cites and delineates mapping errors, which were based on the mapping convention in use at the time (verbiage from the request is “less accurate mapping”). The map associated with the request also cites a field that had not been delineated (Field 51) within the Farm, when the original determination was a “Total Farm Determination” according to the original CPA-026e. I have reviewed the report and the request, and concur that there are errors in the mapping of wetland boundaries as described in the request. Because the question of validity is tied to the procedures used for the farm, I will re-issue the farm determination using current methods as outlined in the National Food Security Act Manual’s Wetland Identification Procedures, as supported by the Corps of Engineers Wetland Delineation Manual (NRCS-adopted parts only) and the associated Regional Supplement (as needed). Because new acreage will be added to the farm determination (Field 51) the determination will be issued as a Preliminary Determination with informal appeal rights before it is certified as a Final Technical Determination (which will include final appeal rights).

Sincerely,

Darren K. Manthei
Area Wetland Specialist

979-846-0757 ext. 106
darren.manthei@tx.usda.gov

Electronic CC: David S. Manthei – NRCS District Conservationist – Anahuac, TX
Phillip Stewart – NRCS Resource Team Leader – Liberty, TX
H. Dan Keesee – NRCS State Wetland Specialist – Temple, TX
Cliff J. Sunda – Vice President-Operations – Wildwood Env. Credit Company, LLC

SUMMARY OF RECENT CROPPING HISTORY

Rice production has occurred on fields 9 and 10 for over seventy-five years. Production of conventional rice in a given year was followed by two years of rest before being cropped again. The loss of Spindletop Weir in Hurricane Ike allowed salt water intrusion into Spindletop Ditch which prevented the site from being farmed from 2009 – 2014. Immediately following the hurricane salt levels were too high in the field and they had to be flushed from the field using the irrigation as freshwater became available. Repairs to Spindletop Weir were completed in 2014 and rice farming commenced at the site again in 2015. The field was prepped for farming in 2016 but rains prevented harvest of the crop. The field is currently prepped to plant in 2017. Table 1 contains a summary of the recent cropping history of the west unit. The field was farmed in 2015, the 5th year after salts had been flushed from the field.

The field is leased for farming. The field could not be leased for a crop other than rice due to their risky nature. See following email from the NRCS describing the risky nature of farming soybeans or wheat in this area. As a result this farm has historically only been used for grazing or rice farming.

Table 1. Recent cropping history of fields 9 and 10 (west of SH 124).

Year	Activity	Comment
2004	Farmed	Leased to farmer and farmed in conventional rice
2005	Rested	Conventional rice farming required a 2-year rest period following cropping
2006	Rested	“
2007	Pump Failure	Pump had to be replaced. Inadequate funds available. Grazing lease established to ensure maintenance until funds became available
2008	Hurricane	Hurricane Ike in Sept. 2008 destroys salt water barrier at Spindletop Weir
2009	Flush Saltwater	Pump replaced and used to flush fields of saltwater when water was available.
2010	Flush Saltwater	Salt levels still too high to crop fields.
2011	Unable to Farm	Insufficient freshwater to farm rice / field leased for grazing
2012	“	“
2013	“	“
2014	“	Spindletop Weir repaired by TBCE
2015	Farmed	First time site could be farmed since September 2008 (organic rice)
2016	Farmed	Field prepped to farm but wet weather prevented cropping (organic rice)

9/18/2016

Inbox [1/20] - Cliff Sunda <cliff@wildwoodcredits.com>

Farming in Chambers County, Greater than 5 years Fallow

From: "Manthei, David - NRCS, Anahuac, TX" <David.Manthei@tx.usda.gov>
To: cliff@wildwoodcredits.com

12/01/15 11:33

Cliff,

As we discussed, there are some things to consider when it comes to determining whether a farm field might be considered "abandoned", and in determining whether a farmer should farm ANY crop if it becomes impossible or impractical to farm rice for a period of time.

First, we look at whether a particular field is enrolled in agriculture...in the Farm Bill Program. If it is, then Food Security Act rules apply. So, in the case we had discussed, a "PC" field (which was delineated as a "PC" on a certified determination) is always a "PC", no matter how many years it sits fallow. COE will recognize our label in most cases, as long as the field is in Ag status. However, we always recommend producers to check with COE to make sure there are no jurisdictional wetlands on their land.

For Food Security Act, a field farmed in 2009 as a "PC", and then fallowed (not farmed) until 2015, can be farmed in 2015 as a "PC". That "PC" designation stays with the land unit until it is removed from the Farm Bill Program. There is a chance that COE could say the field has been abandoned, but for Food Security Act purposes, the land is still "PC". The producer would want to have contacted COE [however many years ago] to determine whether there were any jurisdictional wetlands on the field that could have been "abandoned".

If the field is then removed from agriculture, Corps of Engineers rules will apply and it is possible for the whole field to become "abandoned", and the COE may or may not recognize our "PC" label from that point on. To my understanding, one of the triggers for abandonment is 5 years without activity, and another is whether woody vegetation has grown up. If a field sits out more than 5 years, but no woody vegetation grows up (the field is maintained in grasses, or the site simply does not support woody vegetation) then it probably would not be considered a conversion...but you'd have to double check with COE about that.

Another consideration is whether a farmer, once he has determined that it is impractical/impossible to farm rice for a period of time on a particular field (such as after Hurricane Ike when some fields simply could not receive irrigation water from a damaged canal system for several years), can or should grow some other crop. Soybeans do well enough here, but it is an extremely risky crop. Most farmers will avoid it because, after planting the bean, there must be no rain until the bean pops out of the surface. If a rain does come before then, the ground here will cake over and the bean will not be able to push through, and the crop will have failed before it even sprouted. Wheat is easier to get up, but comes with its share of risk as well. A farmer making winter wheat must rely on a dry fall/winter or have very high ground, because if the wheat gets too much water, it does poorly and fails as a crop. This is a major concern in a county with an average annual rainfall of 54 – 58 inches (some years reaching in to 60's, 70's, and even 90 inches in 2001). Some farmers will plant a field to Hay if they also graze cattle periodically, but that tends to be a more permanent option due to the cost and other inputs involved in establishing and maintaining Hay.

David Manthei
USDA-NRCS, District Conservationist
Anahuac Field Office
1751 S. Main St.
P.O. Box 819
Anahuac, TX 77514
409-267-3581 (office)
844-496-7059 (fax)



United States Department of Agriculture

Tuesday, September 13, 2016

Estate of John Middleton
4306 Yoakum, Suite 540
Houston, TX 77006

William York
P.O. Box 354
Stowell, TX 77661

**RE: Certified Wetland Determination/Delineation, Chambers County
USDA FSN 1606 Tracts 5824, 5826 and 5827**

Estate of John Middleton and William York;

I have received your written request to waive your appeal rights, and I am forwarding the certified wetland determination to the Farm Service Agency (FSA) via the attached form(s) CPA-026e. At this time the decision is final. Should you decide to appeal the final decision, you have a 30-day window after receipt of this letter to appeal to the FSA County Committee (COC) or to the National Appeals Division (NAD). For your convenience I am including their contact information, as listed in our appeals procedure policy documents, below:

You may appeal this determination to the FSA county committee (COC) by filing a written request no later than 30 calendar days after you receive this notice in accordance with the FSA appeal procedures found at 7 CFR Part 780. If you appeal to the COC, you have the right to an informal hearing that you or your representative may attend either personally or by telephone. To appeal, write to the COC at the following address and explain why you believe this determination is erroneous. That address is:

1351 HWY 146 BYP
LIBERTY, TX 77575

Alternatively, you may appeal this determination to the National Appeals Division (NAD) by filing a written request no later than 30 calendar days after you receive this notice in accordance with the NAD appeal procedures found at 7 CFR Part 11. If you appeal to NAD, you have the right to a hearing that you or your representative may attend. Once a hearing with NAD begins, you waive any rights to reconsideration, an appeal to FSA, and mediation. To appeal, you must write to NAD at the following address, explain why you believe this determination is erroneous, and provide a copy to FSA. You must personally sign your written appeal to NAD and include a copy of this letter. That address is:

Assistant Director - Western Regional Office
National Appeals Division
755 Parfet Street, Suite 494
Lakewood, Colorado 80215-5506

Natural Resources Conservation Service (NRCS)
1716 Briarcrest Dr., Suite 510, Bryan, TX 77802
Voice: 979/846-0757 Fax: 979/846-0923
An Equal Opportunity Provider and Employer



United States Department of Agriculture

Phone: (303) 236-2862
Fax: (303) 236-2820

Toll Free: 1-800-541-0483
Online at: <http://www.nad.usda.gov/index.html>

If you have any questions, please feel free to contact me at your convenience.

Sincerely,

Darren K. Manthei
Area Wetland Specialist

979-846-0757 ext. 106
darren.manthei@tx.usda.gov

Electronic CC – Jeremy Hughes – FSA County Executive Director – Liberty, Texas
David S. Manthei – NRCS District Conservationist – Anahuac, Texas
Phillip Stewart – NRCS Resource Team Leader – Liberty, Texas
Cliff Sunda – V.P. Operations, Wildwood Environmental Credit Company, LLC

Natural Resources Conservation Service (NRCS)
1716 Briarcrest Dr., Suite 510, Bryan, TX 77802
Voice: 979/846-0757 Fax: 979/846-0923
An Equal Opportunity Provider and Employer



United States Department of Agriculture

Thursday, September 01, 2016

Estate of John Middleton
4306 Yoakum, Suite 540
Houston, TX 77006

William York
P.O. Box 354
Stowell, TX 77661

**RE: Certified Wetland Determination/Delineation, Chambers County
USDA FSN 1606 Tracts 5824, 5826 and 5827**

Estate of John Middleton (mailed Certified Receipt) and William York (copied via USPS First-Class Mail);

NRCS has completed the Certified Wetland Determination report in response to the form CPA-38 you signed on July 16, 2016, which was referred to NRCS for a wetland determination as part of a Request for Review of a Certified Wetland Determination that was certified on January 23, 1992. Most of this letter and the report section will seem impersonal and technical; some of it is due to required text, and some is just because it's technical. But before I get started I'll give you the bottom-line. NRCS used current procedures to complete the determination for Farm 1606, as it appeared in the 1992 determination. There were no adverse findings per se, but some delineation lines have changed, and one area within a reservoir that had been labeled as Artificial Wetland (AW) has been corrected to be labeled as a Wetland (W). There is no anticipated difference in how this effects your operation, but because there are changes, appeal rights are being provided. Please refer to *How This Determination Might Impact Person* section of the following report. Your appeal rights are as explained in the *Appeals Rights* below.

The 2014 Farm Bill connected producer eligibility for Federal crop insurance premium subsidy to compliance with the wetland conservation provisions. Eligibility for most USDA programs is lost for any wetland conversions that have occurred after December 23, 1985. However, only wetland conversions that occur after February 7, 2014, result in ineligibility for Federal crop insurance premium subsidy.

There are findings of Wetland (W) in areas previously certified as Artificial Wetland (AW) and the boundaries of certain previously delineated wetland/non-wetlands has changed based on your request for review. **These findings are currently "Preliminary"** and remain so until either a "Final" determination is made or until the appeals period lapses. The pages following this Cover/Appeals Rights letter include the technical Certified Wetland Delineation Report, a Certified Wetland Map and other supporting documentation regarding the determination. If not appealed, this determination will become final 30 days after you receive this packet.

After the determination has become final it will be forwarded to Farm Services Agency.

Appeal Rights

At this time the determination is pending your appeal rights as follows:

- 1) You may request that NRCS reconsider this determination by filing a written request no later than 30 calendar days after you receive this notice (in accordance with the NRCS's appeal procedures found at 7 CFR Part 614). If you request reconsideration, you have the right to a field visit, office visit, or other designated location meeting site for an informal review. During the review you or your representative may provide additional information and discuss the facts relating to the preliminary technical

Natural Resources Conservation Service (NRCS)
1716 Briarcrest Dr., Suite 510, Bryan, TX 77802
Voice: 979/846-0757 Fax: 979/846-0923
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United States Department of Agriculture

determination. Following reconsideration, you may further appeal the determination to the FSA county committee (COC) or the National Appeals Division (NAD). **To request reconsideration**, write to the Bryan Area Office – Wetland Specialist at the following address, and explain why you believe this determination is erroneous. That address is:

NRCS Wetland Specialist
1716 Briarcrest Dr. Suite 510
Bryan, Texas 77802

2) Mediation is another option available as part of NRCS's informal appeals process. Mediation may enable NRCS to narrow the issues and resolve the matter by mutual agreement. You may have to pay all or part of the cost of mediation. If you request mediation, the running of the timeframe in which you may file an appeal stops. When mediation closes, the clock restarts and you will have the balance of the days remaining in that period to file an appeal. To request mediation, you must submit your written request no later than 30 calendar days after you receive this notice. **To request mediation**, write to the Texas State mediation program at the following address and provide a copy of your request for mediation to NRCS. That address is:

Dispute Resolution Center
Texas Rural Mediation Services
P.O. Box 10536
Lubbock, Texas 79408-3536
Phone: (806) 775-1720
Toll Free: (866) 329-3522
Fax (806) 775-1729

If you do not wish to appeal the findings, you can either write to me a statement that you are accepting the findings as they are and wish to waive your appeal rights, or you can allow 30 days to pass without response. Email response is acceptable. I will mark a date on my calendar once I have received confirmation from the post office that you have received this letter, or once I have been contacted by you via phone or email that you have received this letter. If you have questions regarding this report, its findings, and how the general process works you may contact me at your convenience either by phone (979-846-0757 ext 106) or email (darren.manthei@tx.usda.gov). Due to frequent traveling please understand that I may not always be available by phone, and messages may have a response time of 3-7 days depending on the travel situation.

Sincerely,

A handwritten signature in black ink, appearing to read "Darren K. Manthei".

Darren K. Manthei
Area Wetland Specialist

Electronic Cc: David S. Manthei – NRCS District Conservationist – Anahuac, TX
Cliff Sunda – V.P. Operations, Wildwood Environmental Credit Company, LLC

Natural Resources Conservation Service (NRCS)
1716 Briarcrest Dr., Suite 510, Bryan, TX 77802
Voice: 979/846-0757 Fax: 979/846-0923
An Equal Opportunity Provider and Employer

Thursday, September 01, 2016

CERTIFIED WETLAND DELINEATION AND DETERMINATION REPORT
ESTATE OF JOHN MIDDLETON; WILLIAM YORK
CHAMBERS COUNTY – USDA FSN 1606
TRACTS 5824, 5826 AND 5827

BACKGROUND INFORMATION

For the purpose of this report, Landowner/Operator and affiliated owners/agents are collectively referred to as “Person” (per Title 7 CFR Part 12).

This wetland determination was the result of a form CPA-38 *Request for Certified Wetland Determination or Delineation* signed by Person July 16, 2016. A Certified Determination had been completed on this farm as “A whole farm determination” as of January 23, 1992. The person made requests, which were first denied (reference prior agency responses). However, a request was made in August in which mapping errors were cited and how they affect the validity of the determination. NRCS concurred that errors occurred and that the determination’s validity was compromised. A letter dated August 4, 2016 contains the agency response in which the request was granted; this determination is the outcome of the requested review.

USDA Natural Resources Conservation Service is mandated by Statute¹ to conduct wetland delineations for USDA program participants for purposes related to the wetland conservation provisions promulgated by the Food Security Act. The Act prohibits USDA program participants from converting wetlands for the purpose of or to make possible the production of a commodity crop².

The nature of this determination is technical and is supported under Title 7 Code of Federal Regulations Part 12 (7 CFR 12) as follows - *Title 7 CFR Part 12 Sec.21.1(a) Scope. This part sets forth the terms and conditions under which a person who produces an agricultural commodity... on a converted wetland, or converts a wetland shall be determined to be ineligible for certain benefits... Sec.12.6(c)(2) An NRCS representative shall make... determinations which are required to be made in accordance with this part (v) whether the actions... on converted wetland would have only a minimal effect... (viii) whether the conversion of a wetland is for the purpose of or has the effect of making... production... possible; Sec.12.30(a)... NRCS shall (3) make or approve wetland determinations... relative to the implementation of the wetland conservation provisions of this part; (6) investigate complaints and make technical determinations regarding potential violations. This certified wetland determination meets NRCS’s responsibilities outlined in Title 7 CFR 12.*

This wetland delineation was conducted to (1) determine the scope of wetlands within the identified acreage, (2) to determine if any exemptions apply, as provided for in Title 7 Code of Federal Regulations Part 12 Section 12.5, and (3) for the exclusive purpose of implementing the Wetland Conservation provisions of the Food Security Act of 1985. As such, this determination and delineation may not be valid for identifying the extent of jurisdiction of the rules in Section 404 of the 1972 Clean Water Act, administered by EPA and the US Army Corps of Engineers (USACE). Some clearing activities, and installation of drains in wetlands and other waters of the U.S. are regulated by the USACE.

Definitions that are important to this determination are wetland and converted wetland. The definitions used by USDA-NRCS are from Title 7 Code of Federal Regulations. Part 12 (7 CFR 12) § 12.2 et cetera as follows:

Wetland, except when such term is a part of the term “converted wetland”, means land that-

- 1) Has a predominance of hydric soils;
- 2) Is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation...and
- 3) Under normal circumstances does support a prevalence of such vegetation...

Converted Wetland is a wetland that has been drained, dredged, filled, leveled or otherwise manipulated, including the removal of woody vegetation...for the purpose of or to have the effect of making possible the production of an agricultural commodity...if (i) such production would not have been possible but for such action, and (ii) before such action such land was wetland...and was neither highly erodible land nor highly erodible cropland.

Converted Wetland is further explained in § 12.32(a) (2), where woody hydrophytic vegetation has been removed from hydric soils for the purpose of, or permitting the production of an agricultural commodity, the area will be considered to be a converted wetland.

Other technical definitions (hydric soil, hydrophytic vegetation and wetland hydrology are defined in *Procedures* below.

¹ Food Security Act of 1985 (P.L. 99-198, 99 Stat. 1504, December 23, 1985, as Amended Through P.L. 107-195, June 16, 2002...

²“Agriculture Commodity means any crop planted and produced by tilling of the soil, including tilling by one-trip planters, or sugarcane” (7CFR12.2 Definitions).

PROCEDURES

Darren K. Manthei, USDA-NRCS Wetland Specialist, conducted a site visit on August 31, 2016 to field-verify data from what is being recorded as an off-site determination (COE Manual, Part IV, Section D Subsection 1). Flexibility as allowed for in paragraph 23 of this same manual was used in that data sheets were not completed for the following reason: off-site data gathered, which included vegetation, hydrology and soils information, the National Wetland Inventory, aerial imagery, and 25 previously recorded data forms, had already been recorded by Horizon Environmental Services (data sheets), NRCS (soil survey data, Ecological Site Descriptions and hydrology criteria of soil mapping units), and USFWS (NWI Maps and their associated data/criteria).

This site visit was preceded by off-site study of historical aerial photography, soils maps and the respective soils data, and topographical maps. The primary objective was to correct the mapping errors by using approved methodology to correct the errors contained in the previously certified determination. Procedures outlined in the Food Security Act Wetland Identification Procedures, in consideration of the 1987 Corps of Engineers Wetland Delineation Manual, Technical Report Y-87-1 (87' Manual) and the corresponding Atlantic and Gulf Coastal Plains Regional Supplement, were used to determine the presence or absence of Food Security Act wetlands within the Sampling Units.

A reconnaissance (off-site and on-site) of the project area as supported by off-site tools such as quadrangle sheets, soils maps, and aerial photography was conducted to determine whether or not potential impact areas would be considered as wetland. The Certified Wetland Determination and Delineation was performed in these areas to determine the proper labels to use for the Certified

Wetland Map. Sampling Points were taken to determine and document soils, hydrology, and plant community characteristics.

Hydrology – The question for the hydrology portion of the determination is whether any areas support the definition of Wetland Hydrology, defined in the Wetland ID Procedures as *inundation or saturation of the site by surface or groundwater during a growing season at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation.*

Soils - The definition of *Hydric Soil* found in 7 CFR 12 §12.2 was used in determining whether soils met hydric criteria. This definition is: *soils that, in an undrained condition, are saturated, flooded or ponded long enough during the growing season to develop an anaerobic condition that supports the growth and regeneration of hydrophytic vegetation.*

Vegetation - The definition of hydrophytic vegetation used in the determination as found in 7 CFR is *a plant growing in water, or a substrate that is at least periodically deficient in oxygen during a growing season as a result of excessive water content.*

Other - USDA wetland labels, as defined in USDA's NRCS Food Security Act Manual (NFSAM), were assigned to each inventoried area and placed on the Certified Wetland Map. The criteria for the different labels are provided for in the NFSAM, as supported by 7CFR Part 12 and the 1985 Food Security Act, as amended. The Act, as amended, stipulates that 23 December 1985 and 28 November 1990 are benchmark dates regarding regulated land conversion actions. The 1985 date is used regarding "planting of a crop on a converted wetland" and the 1990 date is used in connection with the restriction of USDA program participants "making production possible on a converted wetland". Refer to the How This Determination Might Impact Person section for more information.

A form NRCS-CPA-026e has been completed for this Tract. This is the official determination certification, and will remain in "Preliminary" status until certification results from either the expiration of appeals or a Final Technical Determination has been issued. An attachment to that form lists the wetland labels and provides a definition for each label.

FINDINGS

The majority of the findings regarding whether or not certain areas meet the definition of a wetland (y or n rather than the label) were consistent with the previous determination and the determination conducted by Horizon Environmental Services. The differences being in the exact delineation boundaries. The published soil maps and NWI maps were relied upon heavily in re-mapping these wetlands. However, one part of the Farm, within Tract 5824 in Field 51 could not be delineated by NRCS. Some portions of this field were validly delineated, but many areas within this field are a maintenance right of way for a bayou, held by the drainage district. These areas have been intentionally omitted from this determination. Aside from corrections to the boundaries of wetlands (including Wetland (W), Prior Converted Cropland (PC) and Artificial Wetland (AW)) two major differences were found that were corrected with this determination.

The first major difference is that a reservoir in Field 51 of Tract 5824 had been labeled as AW in its entirety in 1992. This determination finds that approximately 61.2% of this area was mapped as meeting the definition of a hydric soil, and thus the wetland condition pre-dated the creation of the reservoir. No farming history was found within this area, therefore the correct label for this portion of the wetland area is W rather than AW. The remainder of that reservoir area remains AW.

The second major difference is that one wetland of approximately 0.2 acres within Field 1 of Tract 5826 had been omitted from the original determination. This determination corrects that error by delineating the wetland as a W.

By tract number, the corrected farm determination can be summarized as follows:

Tract 5824

- 1) 214.6 acres are determined to be Non-Wetland (NW)
- 2) 132.6 acres are determined to be Prior Converted Cropland (PC)
- 3) 33.6 acres are determined to be Artificial Wetland (AW)
- 4) 53.7 acres are determined to be Wetland (W)

Tract 5826

- 1) 167.1 acres are determined to be Non-Wetland (NW)
- 2) 17.2 acres are determined to be Prior Converted Cropland (PC)
- 3) 3.9 acres are determined to be Wetland (W)

Tract 5827

- 1) 556.7 acres are determined to be Non-Wetland (NW)
- 2) 211.6 acres are determined to be Prior Converted Cropland (PC)
- 3) 40.0 acres are determined to be Wetland (W)
- 4) 2.4 acres are determined to be Artificial Wetland (AW)

HOW THIS DETERMINATION MIGHT IMPACT PERSON

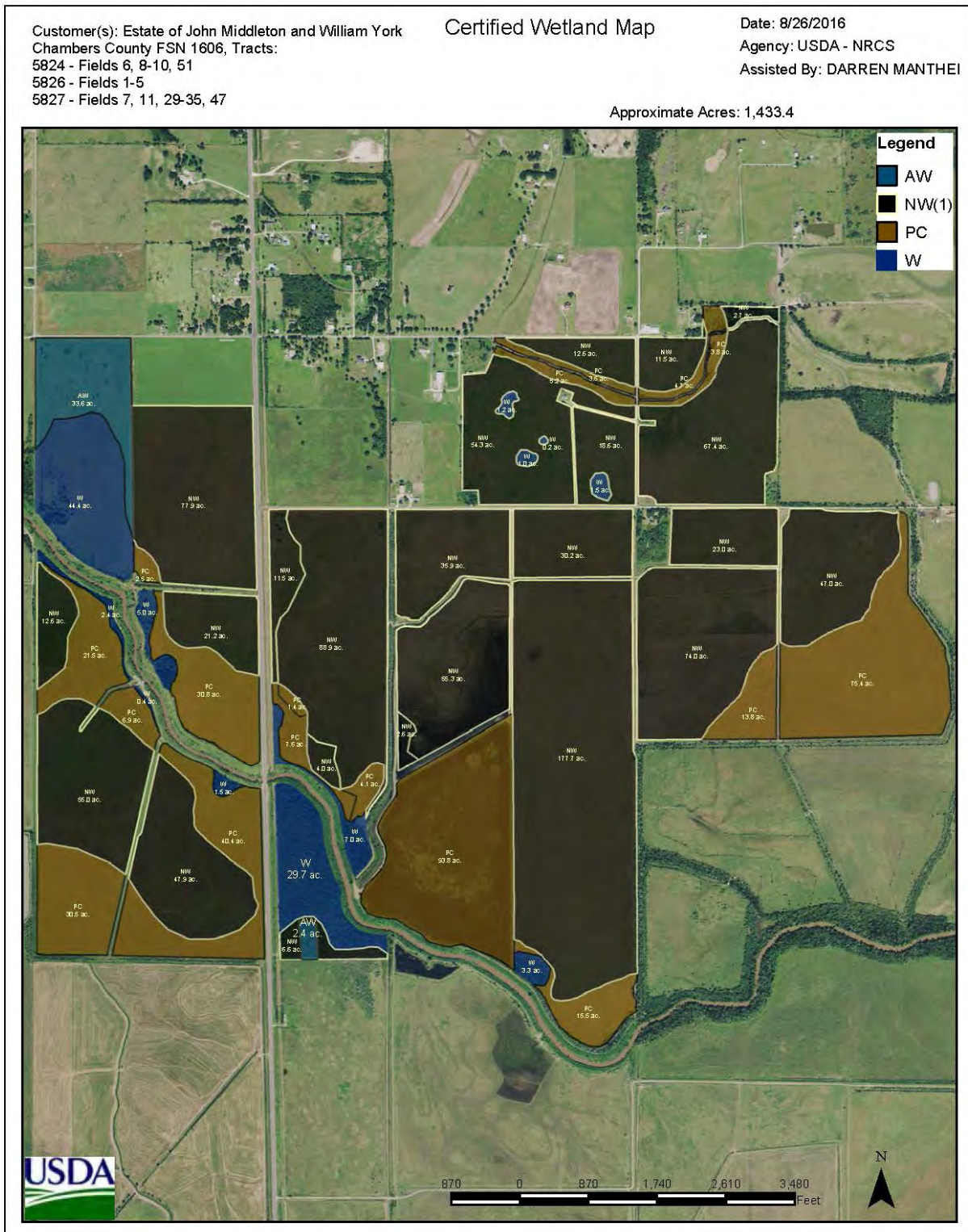
The Farm Service Agency determines eligibility, including determinations of whether a Good Faith Exemption or a Third Party Conversion Exemption applies. While there are two separate and distinct wetland protection laws applicable to Texas landowners, this determination is valid only for the Wetland Conservation Provisions of the Food Security Act. These provisions are contained in the 1985 and subsequent farm bills. They prohibit USDA program participants from converting wetlands to make production of an agricultural commodity possible. This includes conversion of wetlands for pasture, hayland or cropland use.

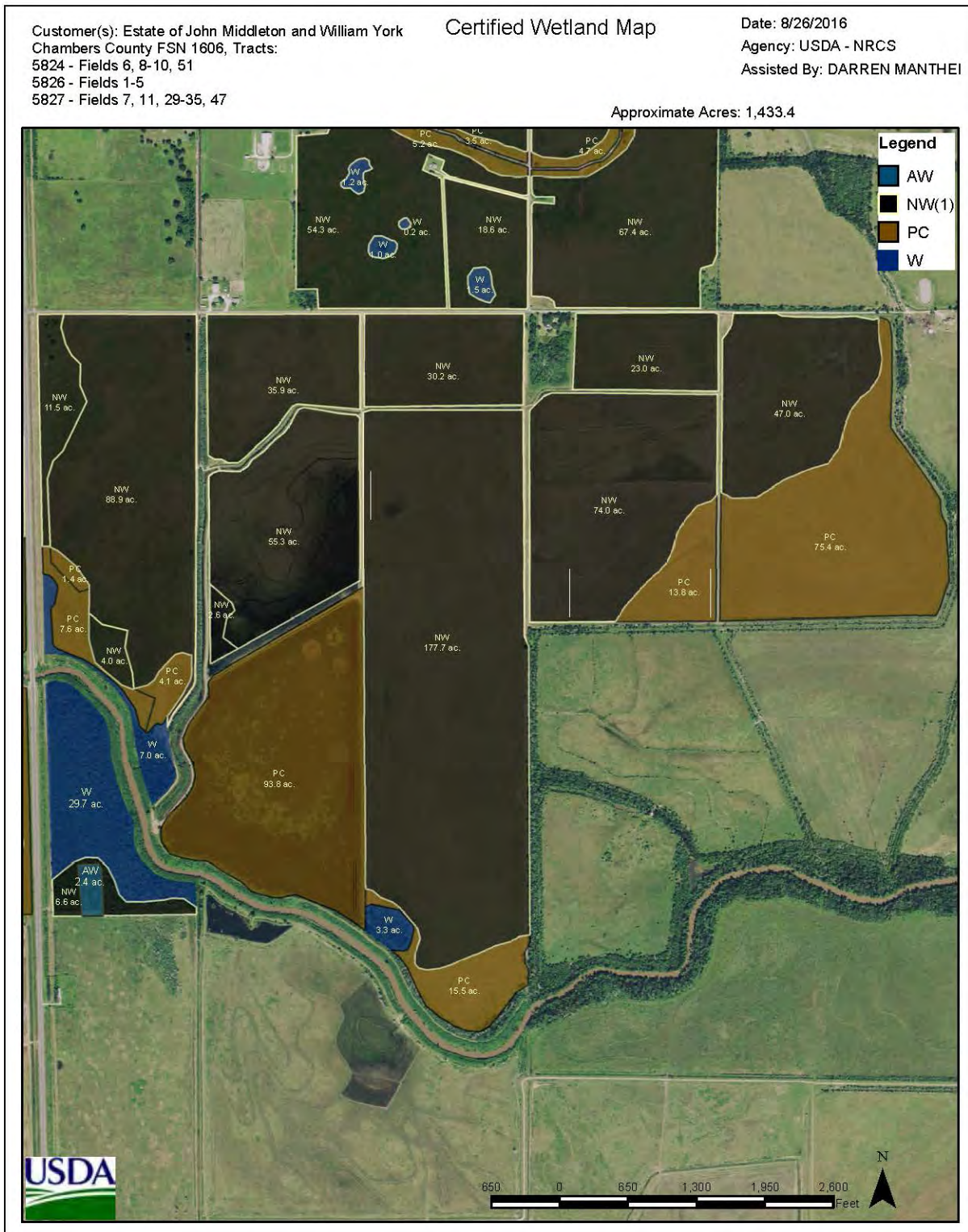
Areas mapped as Non-Wetland (NW), Prior Converted Cropland (PC) and Artificial Wetland (AW) are not subject to the wetland conservation provisions.

Areas mapped as Wetland (W) may not be converted. There are however exemptions to the rule as mentioned in 7 CFR 12 §12.5(b)(iv), which include conversion for a purpose that does not make the production of an agricultural commodity possible, such as fish production, trees, vineyards, shrubs, cranberries, livestock ponds, building and road construction. Herbaceous wetlands may also be used in their natural condition for production (over-seeding et cetera).

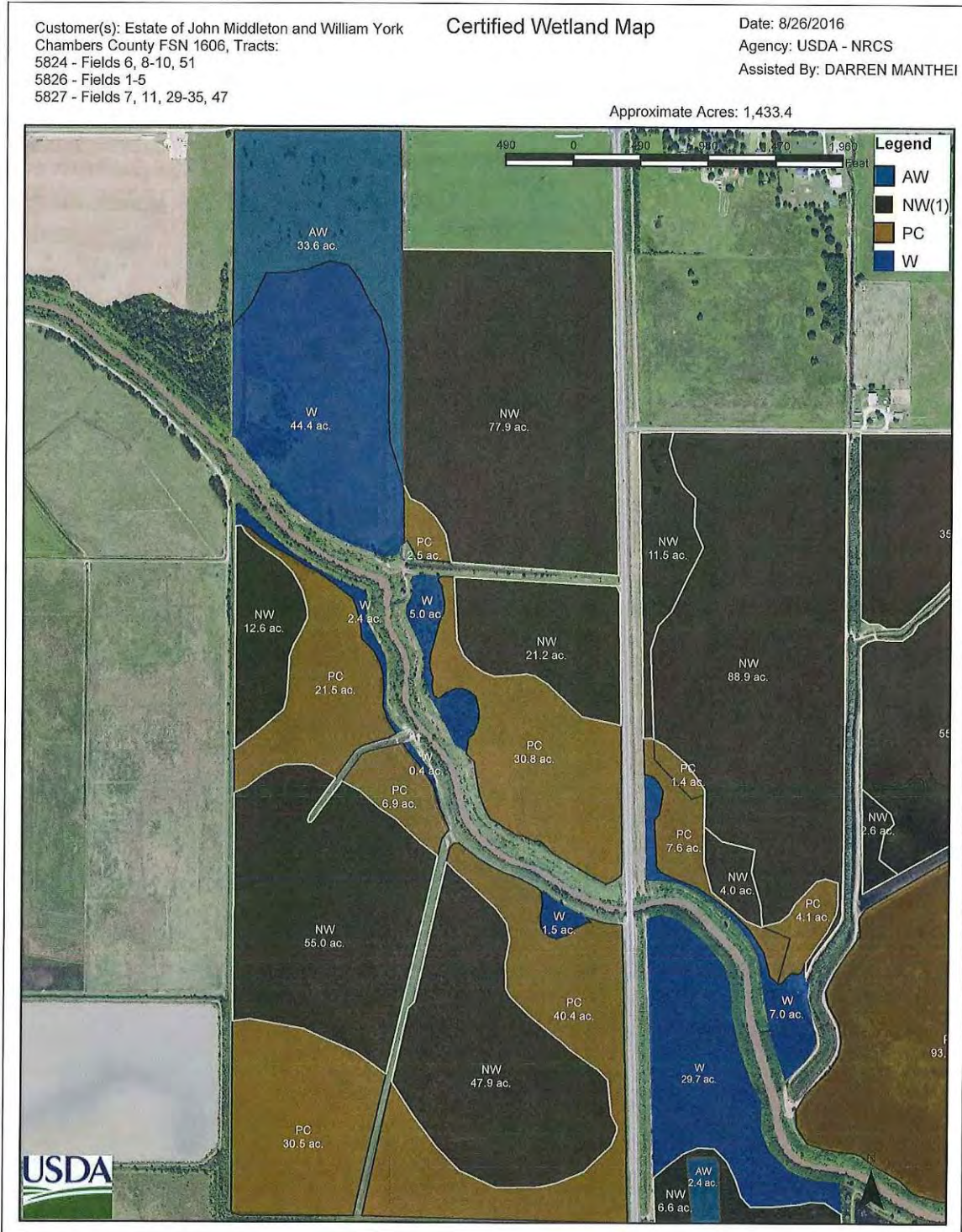
As a note, actions associated with waterways, tributaries, and other waters of the U.S. might be considered as an activity requiring a permit under Section 404 of the Clean Water Act. The US Army Corps of Engineers has the sole authority of permit decisions in waters of the U.S.; NRCS has no authority to offer official guidance or decisions under the Clean Water Act.

Appeals rights regarding this technical determination are provided as part of this report.











United States Department
of Agriculture

Natural Resources
Conservation Service

NRCS-CPA-026e
9/2012

HIGHLY ERODIBLE LAND AND WETLAND CONSERVATION DETERMINATION

Name	Estate of John Middleton	Request Date:	7-16-2016	County:	Chambers
Address:	4306 Yoakum, Ste.540, Houston, TX				
Agency or Person Requesting Determination:	Landowner 77006	Tract No:	5824	FSA Farm No.:	1606

Section I - Highly Erodible Land

Is a soil survey now available for making a highly erodible land determination?	
Are there highly erodible soil map units on this farm?	

Fields in this section have undergone a determination of whether they are highly erodible land (HEL) or not; fields for which an HEL Determination has not been completed are not listed. In order to be eligible for USDA benefits, a person must be using an approved conservation system on all HEL.

Field(s)	HEL(Y/N)	Sodbust (Y/N)	Acres	Determination Date

The Highly Erodible Land determination was completed in the

Section II - Wetlands

Fields in this section have had wetland determinations completed. See the Definition of Wetland Label Codes for additional information regarding allowable activities under the wetland conservation provisions of the Food Security Act and/or when wetland determinations are necessary to determine USDA program eligibility.

Field(s)	Wetland Label*	Occurrence Year (CW)	Acres	Determination Date	Certification Date
51	AW		33.6	9/1/2016	9/13/16
6, 8-10	NVW		214.6	9/1/2016	9/13/16
6, 8-10	PC		132.6	9/1/2016	9/13/16
51	W		53.7	9/1/2016	9/13/16

The wetland determination was completed in the Field It was Mailed to the person on 9/1/2016

Remarks:

This determination is the result of a request for review of previously certified determination dated 1/23/1992.

I certify that the above determinations are correct and were conducted in accordance with policies and procedures contained in the National Food Security Act Manual.

Signature Designated Conservationist	Date
DARREN MANTHEI	Digitally signed by DARREN MANTHEI DN: c=US, o=U.S. Government, ou=Department of Agriculture, cn=DARREN MANTHEI o.9.2342.19200300.100.1.1=12001000286325 Date: 2016.09.01 11:46:59 -05'00'

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*DEFINITIONS OF WETLAND LABELS

AW	<u>Artificial Wetland:</u> An area that was formerly a non-wetland area under natural conditions but now exhibits wetland characteristics because of the influence of human activities. These areas are exempt from the Food Security Act of 1985, as amended. This label includes irrigation induced wetlands.
CC	<u>Commenced Conversion:</u> A wetland, farmed wetland, farmed wetland pasture, or converted wetland on which the conversion began but was not completed before December 23, 1985, was approved by FSA to continue, and the conversion was completed by January 1, 1995.
CPD	<u>COE Permit with Mitigation:</u> A converted wetland authorized by a permit issued under Section 404 of the Clean Water Act. Production of agricultural commodities is allowed subject to conditions of the permit.
CMW	<u>Categorical Minimal Effect:</u> A wetland that meets specific categories of conversion activities that have been determined by NRCS to have minimal effect, individually and cumulatively, on the functions and values of the wetland and the wetlands in the watershed.
CW	<u>Converted Wetland:</u> A wetland converted between December 23, 1985, and November 28, 1990. Production of an agricultural commodity or additional manipulation of these areas will yield USDA benefit ineligibility. Also, these areas are wetlands converted after December 23, 1985, by a county, drainage district, or similar entity. For these instances, production of an agricultural commodity or forage for mechanical harvest or additional manipulation will cause ineligibility for USDA program benefits.
CW+year	<u>Converted Wetland + (year the conversion occurred):</u> A wetland converted after November 28, 1990, where the USDA program participant is ineligible for benefits until the wetland is restored or mitigated unless an exemption applies.
CWNA	<u>Converted Wetland Non-Agricultural Use:</u> A wetland converted after November 28, 1990, to a use other than agricultural commodity production. Label not used for certified wetland determinations completed after 2/2008.
CWTE	<u>Converted Wetland Technical Error:</u> A wetland converted or commenced after December 23, 1985, based on an incorrect NRCS determination. This label does not apply to obvious wetlands as defined in the National Food Security Act Manual.
FW	<u>Farmed Wetland:</u> A wetland that was manipulated and planted before December 23, 1985, but still meets inundation or saturation criteria. These areas may be farmed and maintained as documented before December 23, 1985, as long as they are not abandoned (i.e., management or maintenance for commodity production ceased for 5 consecutive years).
FWP	<u>Farmed Wetland Pasture or Hayland:</u> A wetland that is used for pasture or haying, was manipulated and planted before December 23, 1985, but still meets the inundation or saturation criteria. These areas may be farmed and maintained as documented before December 23, 1985, as long as they are not abandoned (i.e., management or maintenance for commodity production ceased for 5 consecutive years).
MIW	<u>Mitigation Exemption:</u> A converted wetland, farmed wetland or farmed wetland pasture of which the acreage, functions and values lost have been compensated for through an NRCS-approved mitigation plan.
MW	<u>Minimal Effect Exemption:</u> A converted wetland that is exempt from the wetland conservation provisions of the Food Security Act of 1985, as amended, based on an NRCS determination that the conversion has or will have a minimal effect, individually and cumulatively, on the functions and values of the wetland and the wetlands in the watershed.
MWM	<u>Mitigation Site:</u> The site of wetland restoration, enhancement, or creation serving as mitigation for the mitigation exemption (MIW) site.
NI	<u>Not Inventoried:</u> An area where no wetland determination has been conducted. Label not used for certified wetland determinations completed after 2/2008.
NW	<u>Non-Wetland:</u> An area that does not contain a wetland. Also includes wetlands converted before December 23, 1985, but a commodity crop was not produced and the area does not meet wetland criteria (not been abandoned).
PC	<u>Prior-Converted Cropland:</u> A wetland converted to cropland before December 23, 1985, and as of December 23, 1985, was capable of being cropped and did not meet farmed wetland hydrology criteria. These areas are not subject to the wetland conservation provisions of the Food Security Act of 1985, as amended, unless further drainage manipulation affects adjacent wetlands.
PC/NW	<u>Prior Converted Cropland/Non-Wetland:</u> An area that contains both PC and NW.
TP	<u>Third-Party Exemption:</u> A wetland converted after December 23, 1985, by a third party who is not associated with the participant, and the conversion is not a result of a scheme or device. A third party does not include predecessors in interest on the tract, drainage districts, or other local government entities.
W	<u>Wetland:</u> An area meeting wetland criteria that was not converted after December 23, 1985. These areas include farmed wetlands and farmed wetland pasture that have been abandoned.
WX	<u>Manipulated Wetlands:</u> A wetland manipulated after December 23, 1985, but the manipulation was not for the purpose of making production possible and production was not made possible. These areas include wetlands manipulated by drainage maintenance agreements.

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United States Department
of Agriculture

Natural Resources
Conservation Service

NRCS-CPA-026e
9/2012

HIGHLY ERODIBLE LAND AND WETLAND CONSERVATION DETERMINATION

Name	Estate of John Middleton	Request Date:	7-16-2016	County:	Chambers
Address:	4306 Yoakum, Ste.540, Houston, TX				
Agency or Person Requesting Determination:	Landowner 77006	Tract No:	5826	FSA Farm No.:	1606

Section I - Highly Erodible Land

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Are there highly erodible soil map units on this farm?	

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Field(s)	HEL(Y/N)	Sodbust (Y/N)	Acres	Determination Date

The Highly Erodible Land determination was completed in the

Section II - Wetlands

Fields in this section have had wetland determinations completed. See the Definition of Wetland Label Codes for additional information regarding allowable activities under the wetland conservation provisions of the Food Security Act and/or when wetland determinations are necessary to determine USDA program eligibility.

Field(s)	Wetland Label*	Occurrence Year (CW)	Acres	Determination Date	Certification Date
1-5	NW		167.1	9/1/2016	9/13/16
1-4	PC		17.2	9/1/2016	9/13/16
1, 5	W		3.9	9/1/2016	9/13/16

The wetland determination was completed in the Office It was Mailed to the person on 9/1/2016

Remarks:

This determination is the result of a request for review of previously certified determination dated 1/23/1992.

I certify that the above determinations are correct and were conducted in accordance with policies and procedures contained in the National Food Security Act Manual.

Signature Designated Conservationist	Date
DARREN MANTHEI	Digitally signed by DARREN MANTHEI DN: c=US, o=U.S. Government, ou=Department of Agriculture, cn=DARREN MANTHEI, 0.9.2342.19200300.100.1.1=12001000286325 Date: 2016.09.01 11:38:48 -05'00'

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*DEFINITIONS OF WETLAND LABELS

AW	<u>Artificial Wetland</u> : An area that was formerly a non-wetland area under natural conditions but now exhibits wetland characteristics because of the influence of human activities. These areas are exempt from the Food Security Act of 1985, as amended. This label includes irrigation induced wetlands.
CC	<u>Commenced Conversion</u> : A wetland, farmed wetland, farmed wetland pasture, or converted wetland on which the conversion began but was not completed before December 23, 1985, was approved by FSA to continue, and the conversion was completed by January 1, 1995.
CPD	<u>COE Permit with Mitigation</u> : A converted wetland authorized by a permit issued under Section 404 of the Clean Water Act. Production of agricultural commodities is allowed subject to conditions of the permit.
CMW	<u>Categorical Minimal Effect</u> : A wetland that meets specific categories of conversion activities that have been determined by NRCS to have minimal effect, individually and cumulatively, on the functions and values of the wetland and the wetlands in the watershed.
CW	<u>Converted Wetland</u> : A wetland converted between December 23, 1985, and November 28, 1990. Production of an agricultural commodity or additional manipulation of these areas will yield USDA benefit ineligibility. Also, these areas are wetlands converted after December 23, 1985, by a county, drainage district, or similar entity. For these instances, production of an agricultural commodity or forage for mechanical harvest or additional manipulation will cause ineligibility for USDA program benefits.
CW+year	<u>Converted Wetland + (year the conversion occurred)</u> : A wetland converted after November 28, 1990, where the USDA program participant is ineligible for benefits until the wetland is restored or mitigated unless an exemption applies.
CWNA	<u>Converted Wetland Non-Agricultural Use</u> : A wetland converted after November 28, 1990, to a use other than agricultural commodity production. Label not used for certified wetland determinations completed after 2/2008.
CWTE	<u>Converted Wetland Technical Error</u> : A wetland converted or commenced after December 23, 1985, based on an incorrect NRCS determination. This label does not apply to obvious wetlands as defined in the National Food Security Act Manual.
FW	<u>Farmed Wetland</u> : A wetland that was manipulated and planted before December 23, 1985, but still meets inundation or saturation criteria. These areas may be farmed and maintained as documented before December 23, 1985, as long as they are not abandoned (i.e., management or maintenance for commodity production ceased for 5 consecutive years).
FWP	<u>Farmed Wetland Pasture or Hayland</u> : A wetland that is used for pasture or haying, was manipulated and planted before December 23, 1985, but still meets the inundation or saturation criteria. These areas may be farmed and maintained as documented before December 23, 1985, as long as they are not abandoned (i.e., management or maintenance for commodity production ceased for 5 consecutive years).
MIW	<u>Mitigation Exemption</u> : A converted wetland, farmed wetland or farmed wetland pasture of which the acreage, functions and values lost have been compensated for through an NRCS-approved mitigation plan.
MW	<u>Minimal Effect Exemption</u> : A converted wetland that is exempt from the wetland conservation provisions of the Food Security Act of 1985, as amended, based on an NRCS determination that the conversion has or will have a minimal effect, individually and cumulatively, on the functions and values of the wetland and the wetlands in the watershed.
MWM	<u>Mitigation Site</u> : The site of wetland restoration, enhancement, or creation serving as mitigation for the mitigation exemption (MIW) site.
NI	<u>Not Inventoried</u> : An area where no wetland determination has been conducted. Label not used for certified wetland determinations completed after 2/2008.
NW	<u>Non-Wetland</u> : An area that does not contain a wetland. Also includes wetlands converted before December 23, 1985, but a commodity crop was not produced and the area does not meet wetland criteria (not been abandoned).
PC	<u>Prior-Converted Cropland</u> : A wetland converted to cropland before December 23, 1985, and as of December 23, 1985, was capable of being cropped and did not meet farmed wetland hydrology criteria. These areas are not subject to the wetland conservation provisions of the Food Security Act of 1985, as amended, unless further drainage manipulation affects adjacent wetlands.
PC/NW	<u>Prior Converted Cropland/Non-Wetland</u> : An area that contains both PC and NW.
TP	<u>Third-Party Exemption</u> : A wetland converted after December 23, 1985, by a third party who is not associated with the participant, and the conversion is not a result of a scheme or device. A third party does not include predecessors in interest on the tract, drainage districts, or other local government entities.
W	<u>Wetland</u> : An area meeting wetland criteria that was not converted after December 23, 1985. These areas include farmed wetlands and farmed wetland pasture that have been abandoned.
WX	<u>Manipulated Wetlands</u> : A wetland manipulated after December 23, 1985, but the manipulation was not for the purpose of making production possible and production was not made possible. These areas include wetlands manipulated by drainage maintenance agreements.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD). To file a complaint of discrimination, write USDA, Assistant Secretary for Civil Rights, 1400 Independence Avenue, S.W., Stop 9410, Washington, DC 20250-9410, or call toll-free at (866) 632-9992 (English) or (800) 877-8339 (TDD) or (866) 377-8642 (English Federal-relay) or (800) 845-6136 (Spanish Federal-relay). USDA is an equal opportunity provider and employer.



United States Department
of Agriculture

Natural Resources
Conservation Service

NRCS-CPA-026e
9/2012

HIGHLY ERODIBLE LAND AND WETLAND CONSERVATION DETERMINATION

Name Address:	Estate of John Middleton 4306 Yoakum, Ste.540, Houston, TX	Request Date:	7-16-2016	County:	Chambers
Agency or Person Requesting Determination:	Landowner 77006	Tract No:	5827	FSA Farm No.:	1606

Section I - Highly Erodible Land

Is a soil survey now available for making a highly erodible land determination?	
Are there highly erodible soil map units on this farm?	

Fields in this section have undergone a determination of whether they are highly erodible land (HEL) or not; fields for which an HEL Determination has not been completed are not listed. In order to be eligible for USDA benefits, a person must be using an approved conservation system on all HEL.

Field(s)	HEL(Y/N)	Sodbust (Y/N)	Acres	Determination Date

The Highly Erodible Land determination was completed in the

Section II - Wetlands

Fields in this section have had wetland determinations completed. See the Definition of Wetland Label Codes for additional information regarding allowable activities under the wetland conservation provisions of the Food Security Act and/or when wetland determinations are necessary to determine USDA program eligibility.

Field(s)	Wetland Label*	Occurrence Year (CW)	Acres	Determination Date	Certification Date
47	AW		2.4	9/1/2016	9/13/16
7, 29-35, 47	NVW		556.7	9/1/2016	9/13/16
7, 11, 30, 32, 34, 47	PC		211.6	9/1/2016	9/13/16
47	W		40.0	9/1/2016	9/13/16

The wetland determination was completed in the Office It was Mailed to the person on 9/1/2016

Remarks:

This determination is the result of a request for review of previously certified determination dated 1/23/1992.

I certify that the above determinations are correct and were conducted in accordance with policies and procedures contained in the National Food Security Act Manual.

Signature Designated Conservationist	Date
DARREN MANTHEI	Digitally signed by DARREN MANTHEI DN: c=US, o=U.S. Government, ou=Department of Agriculture, cn=DARREN MANTHEI, o.9.2342.19200300.100.1.1=12001000286325 Date: 2016.09.01 11:43:53 -05'00'

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD). To file a complaint of discrimination, write USDA, Assistant Secretary for Civil Rights, 1400 Independence Avenue, S.W., Stop 9410, Washington, DC 20250-9410, or call toll-free at (866) 632-9992 (English) or (800) 877-8339 (TDD) or (866) 377-8642 (English Federal-relay) or (800) 845-6136 (Spanish Federal-relay). USDA is an equal opportunity provider and employer.

*DEFINITIONS OF WETLAND LABELS

AW	<u>Artificial Wetland:</u> An area that was formerly a non-wetland area under natural conditions but now exhibits wetland characteristics because of the influence of human activities. These areas are exempt from the Food Security Act of 1985, as amended. This label includes irrigation induced wetlands.
CC	<u>Commenced Conversion:</u> A wetland, farmed wetland, farmed wetland pasture, or converted wetland on which the conversion began but was not completed before December 23, 1985, was approved by FSA to continue, and the conversion was completed by January 1, 1995.
CPD	<u>COE Permit with Mitigation:</u> A converted wetland authorized by a permit issued under Section 404 of the Clean Water Act. Production of agricultural commodities is allowed subject to conditions of the permit.
CMW	<u>Categorical Minimal Effect:</u> A wetland that meets specific categories of conversion activities that have been determined by NRCS to have minimal effect, individually and cumulatively, on the functions and values of the wetland and the wetlands in the watershed.
CW	<u>Converted Wetland:</u> A wetland converted between December 23, 1985, and November 28, 1990. Production of an agricultural commodity or additional manipulation of these areas will yield USDA benefit ineligibility. Also, these areas are wetlands converted after December 23, 1985, by a county, drainage district, or similar entity. For these instances, production of an agricultural commodity or forage for mechanical harvest or additional manipulation will cause ineligibility for USDA program benefits.
CW+year	<u>Converted Wetland + (year the conversion occurred):</u> A wetland converted after November 28, 1990, where the USDA program participant is ineligible for benefits until the wetland is restored or mitigated unless an exemption applies.
CWNA	<u>Converted Wetland Non-Agricultural Use:</u> A wetland converted after November 28, 1990, to a use other than agricultural commodity production. Label not used for certified wetland determinations completed after 2/2008.
CWTE	<u>Converted Wetland Technical Error:</u> A wetland converted or commenced after December 23, 1985, based on an incorrect NRCS determination. This label does not apply to obvious wetlands as defined in the National Food Security Act Manual.
FW	<u>Farmed Wetland:</u> A wetland that was manipulated and planted before December 23, 1985, but still meets inundation or saturation criteria. These areas may be farmed and maintained as documented before December 23, 1985, as long as they are not abandoned (i.e., management or maintenance for commodity production ceased for 5 consecutive years).
FWP	<u>Farmed Wetland Pasture or Hayland:</u> A wetland that is used for pasture or haying, was manipulated and planted before December 23, 1985, but still meets the inundation or saturation criteria. These areas may be farmed and maintained as documented before December 23, 1985, as long as they are not abandoned (i.e., management or maintenance for commodity production ceased for 5 consecutive years).
MIW	<u>Mitigation Exemption:</u> A converted wetland, farmed wetland or farmed wetland pasture of which the acreage, functions and values lost have been compensated for through an NRCS-approved mitigation plan.
MW	<u>Minimal Effect Exemption:</u> A converted wetland that is exempt from the wetland conservation provisions of the Food Security Act of 1985, as amended, based on an NRCS determination that the conversion has or will have a minimal effect, individually and cumulatively, on the functions and values of the wetland and the wetlands in the watershed.
MWM	<u>Mitigation Site:</u> The site of wetland restoration, enhancement, or creation serving as mitigation for the mitigation exemption (MIW) site.
NI	<u>Not Inventoried:</u> An area where no wetland determination has been conducted. Label not used for certified wetland determinations completed after 2/2008.
NW	<u>Non-Wetland:</u> An area that does not contain a wetland. Also includes wetlands converted before December 23, 1985, but a commodity crop was not produced and the area does not meet wetland criteria (not been abandoned).
PC	<u>Prior-Converted Cropland:</u> A wetland converted to cropland before December 23, 1985, and as of December 23, 1985, was capable of being cropped and did not meet farmed wetland hydrology criteria. These areas are not subject to the wetland conservation provisions of the Food Security Act of 1985, as amended, unless further drainage manipulation affects adjacent wetlands.
PC/NW	<u>Prior Converted Cropland/Non-Wetland:</u> An area that contains both PC and NW.
TP	<u>Third-Party Exemption:</u> A wetland converted after December 23, 1985, by a third party who is not associated with the participant, and the conversion is not a result of a scheme or device. A third party does not include predecessors in interest on the tract, drainage districts, or other local government entities.
W	<u>Wetland:</u> An area meeting wetland criteria that was not converted after December 23, 1985. These areas include farmed wetlands and farmed wetland pasture that have been abandoned.
WX	<u>Manipulated Wetlands:</u> A wetland manipulated after December 23, 1985, but the manipulation was not for the purpose of making production possible and production was not made possible. These areas include wetlands manipulated by drainage maintenance agreements.

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Thursday, August 04, 2016
RE: Decision effective as of January 23, 1992

Estate of John Middleton
4306 Yoakum, Suite 540
Houston, Texas 77006

William York
P.O. Box 354
Stowell, Texas 77661

Request for Review – Certified Wetland Determination
Chambers County FSN 1606 Tract 5824

To all, including Electronic CC recipients:

Person, as defined in Title 7 Code of Federal Regulations Part 12 (7CFR12) § 12.2, submitted a Request for Review of a Certified Wetland Determination on Chambers County USDA FSN 1606 Tract 5824, Fields 9, 10 and 51 via a form CPA-38. The determination being cited was final as of January 23, 1992. I have reviewed the request and the report, and respond as follows:

Pursuant to the National Food Security Act Manual (NFSAM) Section 514.1 C (2), 7CFR12 § 12.30(c) (6) and 16 U.S.C. Sec. 3822(a) (4), a person may request review of a final certified wetland determination when:

- 1) If NRCS concurs with an affected person that an error exists in the current wetland determination.
- 2) A person must make all requests...in writing, stating...where NRCS error is cited...
 - a. what the error is, and
 - b. how it affects the final certified wetland determination validity.

The request cites and delineates mapping errors, which were based on the mapping convention in use at the time (verbiage from the request is “less accurate mapping”). The map associated with the request also cites a field that had not been delineated (Field 51) within the Farm, when the original determination was a “Total Farm Determination” according to the original CPA-026e. I have reviewed the report and the request, and concur that there are errors in the mapping of wetland boundaries as described in the request. Because the question of validity is tied to the procedures used for the farm, I will re-issue the farm determination using current methods as outlined in the National Food Security Act Manual’s Wetland Identification Procedures, as supported by the Corps of Engineers Wetland Delineation Manual (NRCS-adopted parts only) and the associated Regional Supplement (as needed). Because new acreage will be added to the farm determination (Field 51) the determination will be issued as a Preliminary Determination with informal appeal rights before it is certified as a Final Technical Determination (which will include final appeal rights).

Sincerely,

Darren K. Manthei
Area Wetland Specialist

979-846-0757 ext. 106
darren.manthei@tx.usda.gov

Electronic CC: David S. Manthei – NRCS District Conservationist – Anahuac, TX
Phillip Stewart – NRCS Resource Team Leader – Liberty, TX
H. Dan Keesee – NRCS State Wetland Specialist – Temple, TX
Cliff J. Sunda – Vice President-Operations – Wildwood Env. Credit Company, LLC



Environmental Services, Inc.

26 July 2016

Mr. Billy York
PO Box 354
Stowell, Texas 77661

RE: **Estate of John Middleton, 241-Acre Parcel**
Chambers County, Texas
Wetland Determination
HJN 150158 WD

Dear Mr. York,

Horizon Environmental Services, Inc. (Horizon) has evaluated the referenced site for potential wetland and non-wetland areas to aid with the property's applicability in the USDA-NRCS Wetland Reserve Program. This letter and attachments provide the results of our investigation. The parcel has been subject to rice farming for many decades, including last year. This has resulted in altered hydrology, plant communities, and soils disturbance (plowing) that has artificially created wetland characteristics throughout the site. As such, the delineation process has focused not only on the subject site, but on nearby sites of similar topography and position to Spindletop Bayou that have not been recently farmed to use as reference sites. Historical aerial photography, LIDAR topography data, previous NRCS wetland determination information and data from the reference site have been relied on to help make this determination.

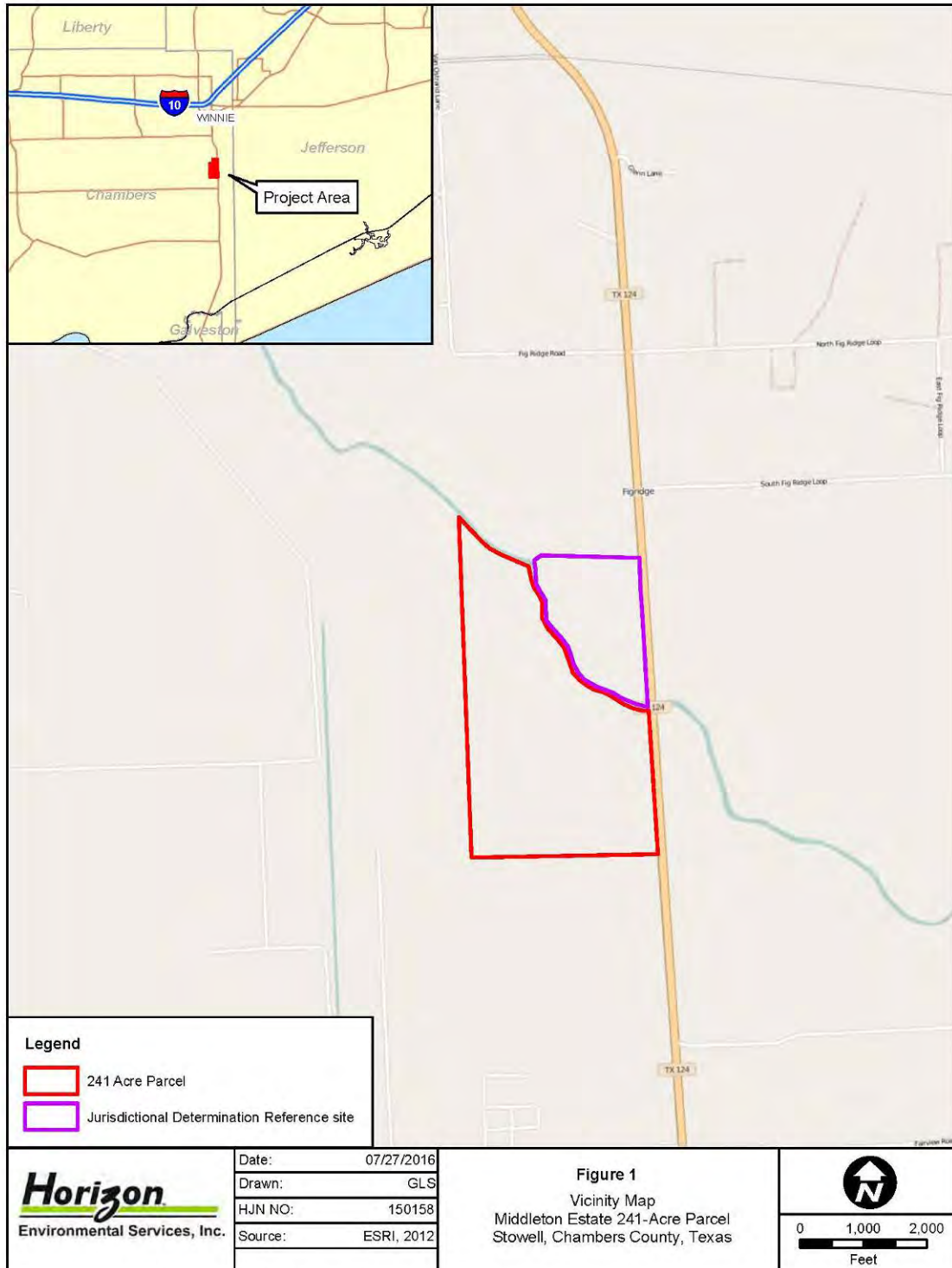
Project Location and General Description

The subject Property consists of an approximately 241-acre tract of rice farm land approximately located 2.5 miles south of Stowell, Texas, at the southwest corner of the SH 124 Bridge over Spindletop Bayou, Chambers County, Texas (see Figure 1). It is bounded on the north by Spindletop Bayou, on the east by SH 124, and on the west and south by additional farmland. Current and historical use of the Property has been rice farming. The Global Positioning System (GPS) location is approximately 29.751825°Latitude and -94.381530°Longitude.

Middleton Estate 241-ac AJD.draft.doc

CORPORATE HEADQUARTERS

1507 S Interstate 35 ★ Austin, Texas 78741-2502 ★ 512.328.2430 ★ www.horizon-esi.com
Certified WBE/HUB/DBE/SBE



150158 - Stowell-Spindletop Mitigation Bank\Graphics\150158A07_Vicinity Map_Middleton_Estate



Mr. Billy York
HJN 150158 WD
26 July 2016
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The Property's vegetation is characteristic of recently farmed rice fields in the area, being dominated, for the most part, by pioneer wetland plants including species of *Juncus*, *Cyperus*, *Eleocharis*, *Persicaria*, *Alopecurus*, *Oryza*, *Ludwigia*, and others. One small area of remnant forested wetland is present adjacent to Spindletop Bayou in the northeast part of the site and has not been previously rice farmed.

Wetland Determination

This determination of wetlands and other water features consisted of a pre-field literature review and a site assessment conducted according to the general methodologies utilized by the NRCS and U.S. Army Corps of Engineers (USACE) in making wetland determinations under their respective authorities and regulations. Due to the post-farming condition of the site with significant alterations to site vegetation, soils, and hydrology, the determination relied heavily on historical aerial photo review, comparison of other mapping information (soils, National Wetland Inventory mapping, and the previous NRCS Certified Determination from 1992), as well as the field data from the reference site that has not been farmed in over 10 years.

Pre-field Evaluation

The literature evaluation included a review of the following sources of information:

1. US Geological Survey (USGS) topographic maps (Hamshire, Texas, 1994, Stanolind Reservoir, Texas, 1994, Stowell, 1993, Texas, and Whites Ranch, 1993),
2. Department of the Interior, U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) map (Wetland mapper accessed 12 July 2016),
3. Black and white and color historic aerial photography (General Land Office (31 December 1937 and 31 December 1969, 31 December 2008), USGS (21 February 1995), US Department of Agriculture (USDA) Farm Service Agency (27 June 2005), and Google Earth (3 October 2014),
4. US Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil survey information (Web Soil Survey, accessed 12 July 2016).
5. Previous NRCS Wetland Determination, 23 January 1992.

The above mentioned documents were utilized to evaluate the subject site for potential wetlands or non-wetlands that would require further assessment during the field investigation. The literature evaluation determined that there was a potential for wetland areas within the Property. The USGS topo map indicates that the subject site exhibits the highest elevations on the western and central portions of the site with lower elevation areas along Spindletop Bayou, Highway 124, and the southern property line. NRCS soil maps indicate the predominant soil present within the property along Spindletop Bayou and Highway 124 is Beaumont clay, which is included in the List of Hydric Soils of Texas. Soils within the western and central portions of the site (higher elevation)

Middleton Estate 241-ac AJD.draft.doc



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26 July 2016
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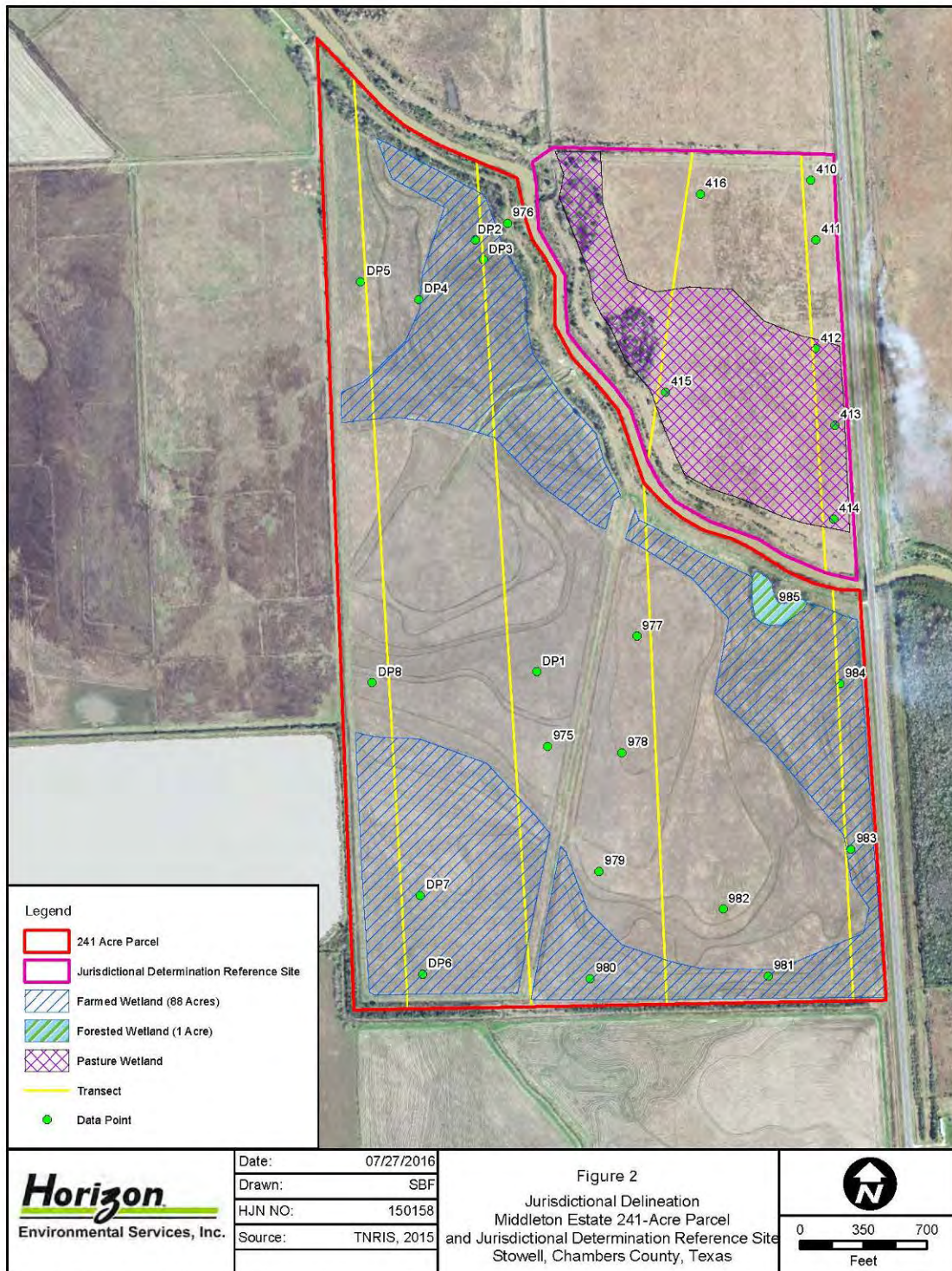
are Meaton-Levac complex soils which may have hydric inclusions. The southern portion of the site is League clay that is non-hydric. Historic and current aerial photographs indicated potential wetlands associated with Spindletop Bayou on the northern portion of the site and along the eastern and southern periphery. Two areas of apparent non-wetland are visible on various aeriels in the central and northwestern portions of the site. Those areas of non-wetland are also supported by the soils map, NWI map, USGS topo map, and the previous NRCS wetland determination. The soils map, NWI map, USGS topo map, and various years of aerial photography are provided in Attachment A.

The NRCS made a certified Highly Erodible Land and Wetland Determination on the Property in 1992 for purposes of Food Securities Act compliance for farming practices. The subject parcel was classified as non-wetland (N) and prior converted (PC) (see Attachment B). The non-wetland areas identified by the NRCS generally correspond with the areas of non-wetland we preliminarily identified from historical aerial photography and are also supported by the soils map, topo map, and the NWI map.

Field Reconnaissance

Horizon personnel conducted a field investigation on 6 April 2016 to assess the site for potential wetlands and other water features. A total of 17 sample points were performed throughout the referenced Property to try to confirm the existing literature and map analysis information (Figure 2). Field data was recorded on USACE Field Data Sheets that are included in Attachment C.

The site was found to still have intact rice farming levees from the previous year's rice cropping and wetland vegetation was ubiquitous throughout the site due to the artificial hydrology that had been maintained during the rice farming. The winter and spring preceding the field investigation had seen very heavy rainfall rates, so the intact levees were artificially maintaining hydrology on the site. The placement and spacing of rice field levees are a good indication of topography and natural drainage patterns. Rice levees in close proximity to each other indicate sloping landscape topography. The evident rice levees on the subject site on recent and historical aerial photography (Attachment B) confirm the higher elevation areas (western and central portions) of the site. Spindletop Bayou is located along the north boundary of the Property and has been deepened over the years for flood control with resulting high spoil banks. The bayou no longer communicates with the site except in very extreme events, but drainage from the site enters the bayou via several small drainage outlets (downspout culverts through the spoil banks).



150158 - Stowell-Spindletop Mitigation Bank\Graphics\150158A08_SeaBreezeMB_JDMap_Middleton_Estate.mxd



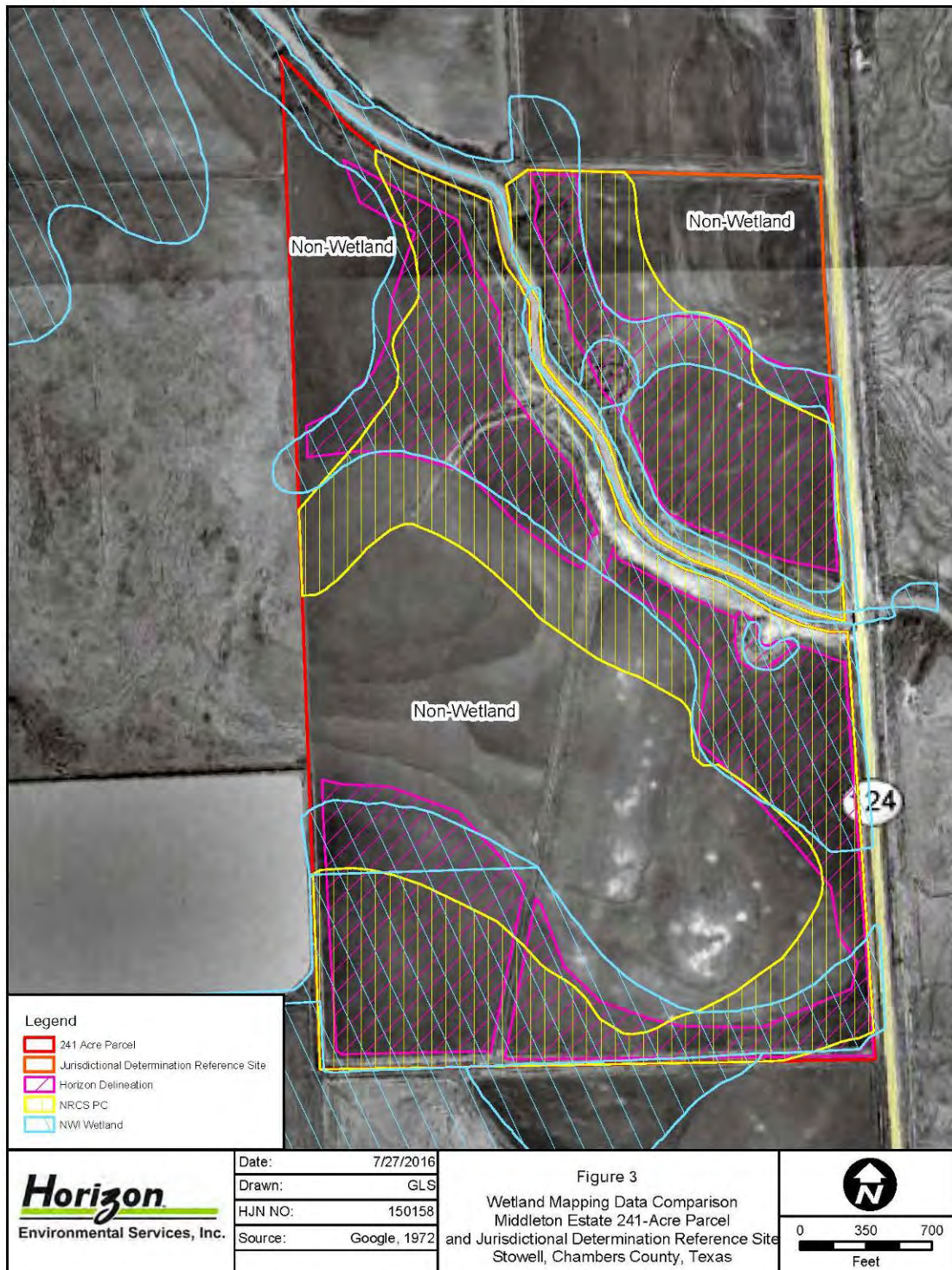
Mr. Billy York
HJN 150158 WD
26 July 2016
Page 6

Based on the field investigation, wetland boundaries could not clearly be identified. While elevational differences were visible, the remnant characteristics of rice farming (levees and adventitious vegetation) masked the true nature of the site. It was decided to use a reference site of similar topography and juxtaposition to Spindletop Bayou that had not been recently rice farmed.

A reference site was selected on the north side of Spindletop Bayou just north of the subject property. The reference site was determined similar based on aerial photography, topographic information, and NWI mapping. Based on historic aerals, the reference site had not been farmed since about 2004-2006. Based on topography information, NWI mapping, NRCS wetland determination information, and aerial analysis, it was determined that wetlands would likely exist on this site in proximity to Spindletop Bayou. An additional field reconnaissance on this site was conducted on 13 May, 2016. Transects and data points were established in a north-south orientation to verify wetland boundaries. The transects and data points are indicated on Figure 2 and data sheets are provided in Attachment C. The previous NRCS wetland determination is included in Attachment B.

The reference site exhibited relatively natural vegetation characteristics since approximately 10 years or more had passed since the previous farming activity. Hydrology and topography appeared to also be relatively natural since all previous rice field levees had been leveled. Only the spoil bank along Spindletop Bayou appeared to artificially influence hydrology on the site nearest the levee where artificial impoundment has occurred.

Transects were established perpendicular to Spindletop Bayou and data points were taken at intervals along or proximal to the transects (Figure 2). Data sheets are provided in Attachment C. Wetland characteristics were noted in the southern portion of the site (Figure 2). The assessment of the reference site generally confirms the validity of the aerial, topo, soils, NWI, and NRCS information used to delineate the primary site. An overlay of these data sources is provided in Figure 3.



150158 - Stowell-Spindletop Mitigation Bank\Graphics\150158A09_PCLine_JDMap_Middleton_Estate



Mr. Billy York
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26 July 2016
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Summary

Based on the pre-field literature review and field investigations, Horizon determined that there exists on the site historically-farmed wetlands (potential PC) comprising 88 acres and one non-farmed, forested wetland encompassing approximately 1 acre. Total wetland area on the property is 89 acres.

If you have any questions or require additional information please contact me at 512-328-2430.

Sincerely,

A handwritten signature in blue ink, reading "C. Lee Sherrod".

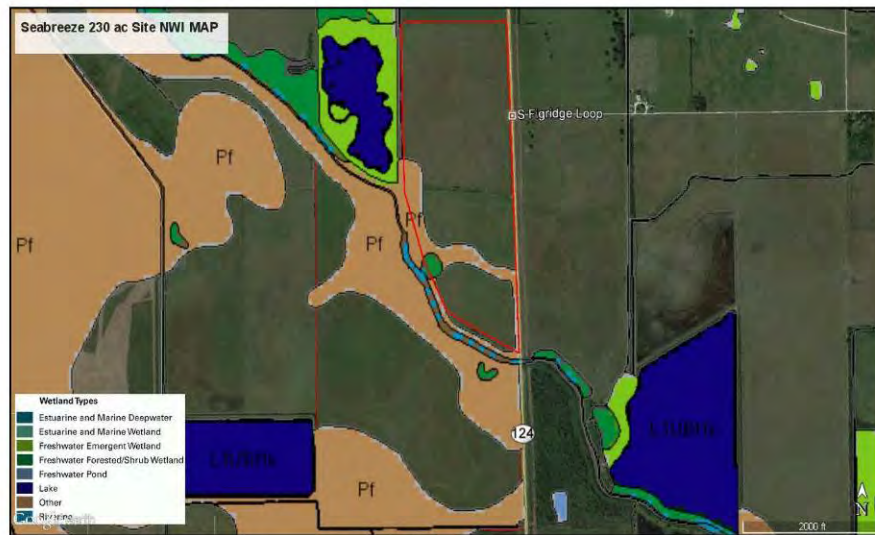
C. Lee Sherrod
Vice President



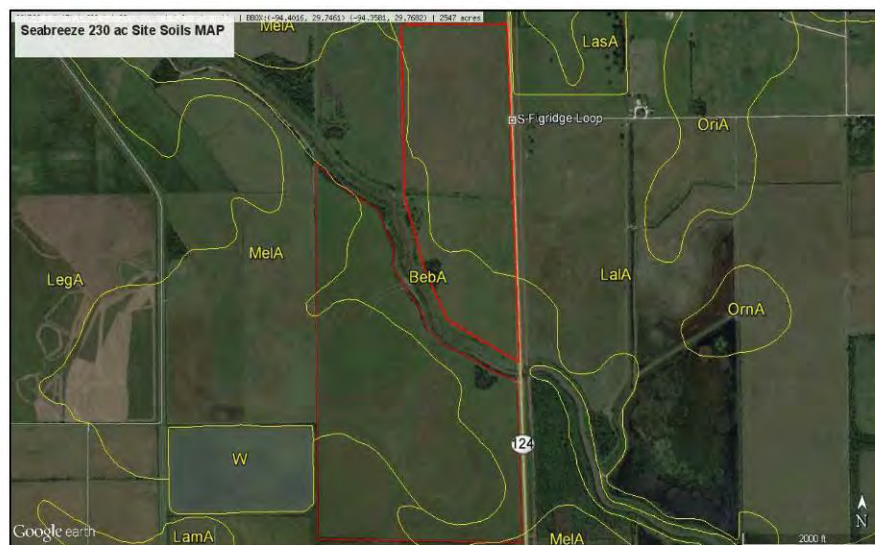
Mr. Billy York
HJN 150158 WD
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Page 1

ATTACHMENT A
EXISTING MAP DATA

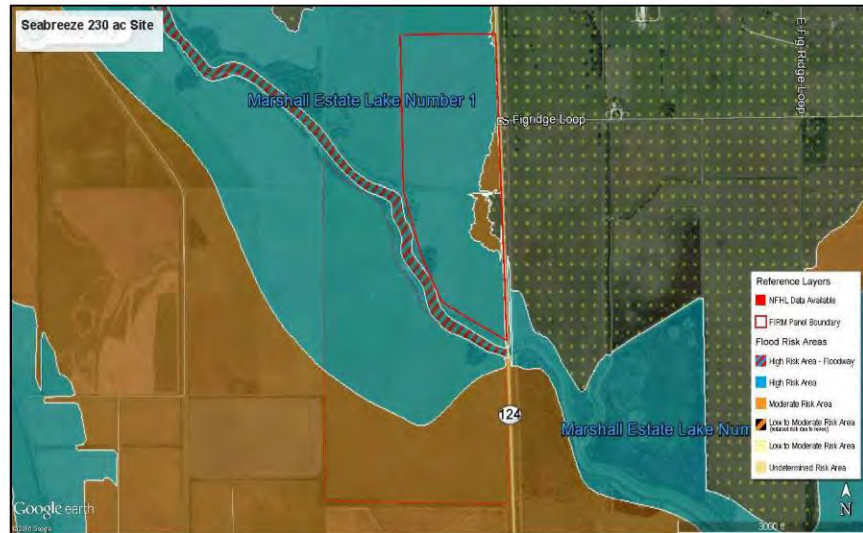
Middleton Estate 241-ac AJD.draft.doc



NWI MAP



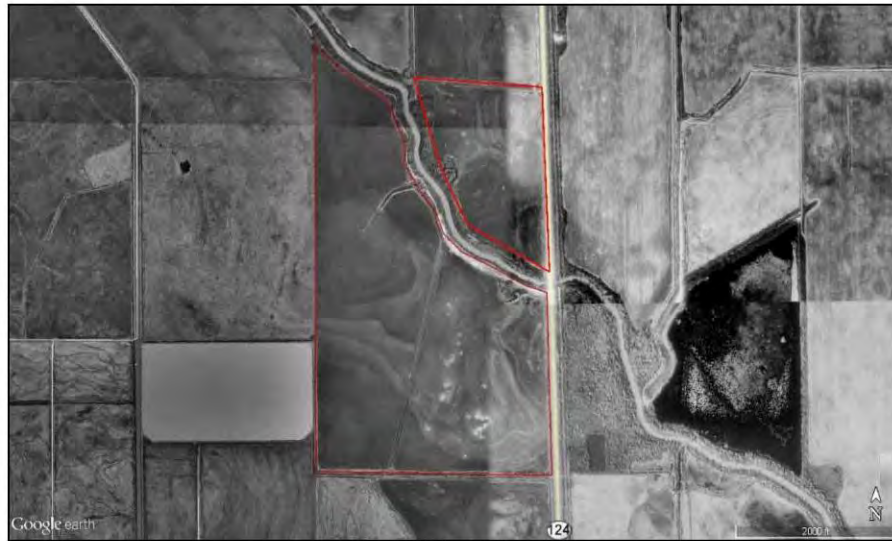
SOILS MAP



FEMA MAP



1968 AERIAL



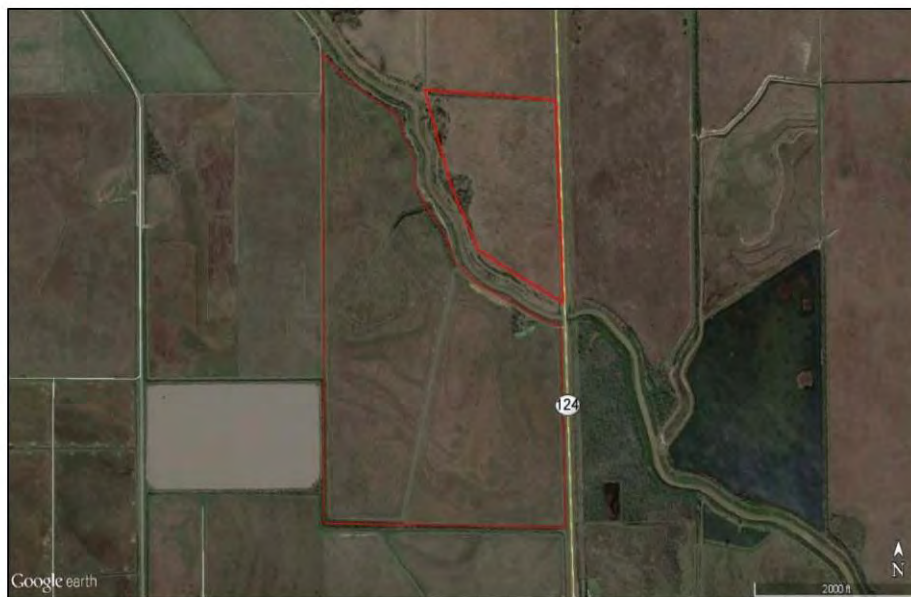
1990 AERIAL



1995 AERIAL



2011 AERIAL



2013 AERIAL



Mr. Billy York
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26 July 2016
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ATTACHMENT B

NRCS CERTIFIED DETERMINATION

UNITED STATES
DEPARTMENT OF
AGRICULTURE

SOIL
CONSERVATION
SERVICE

1222 MAIN ST.
P.O. BOX 819
ANAHUAC, TX 77514

January 23, 1992

T. F. Jenkins
Box 145
Winnie, TX 77665

SCS

Dear Mr. Jenkins:

This letter regards the AD-1026 "Highly Erodible Land and Wetland Conservation Certification" form we received from the ASCS dated 3/30/87. We have made a highly erodible land and wetland determination for your farm (ASCS farm number 27 tract # 330). This completes the determination for the entire farm. Please check the maps enclosed carefully to ensure that the entire farm is included and a determination has been made. All cropland, potential cropland, and areas adjacent to cropland which could be converted to cropland must have a determination made. Two copies of our determination recorded on form SCS-CPA-26 and a photocopy map are enclosed for your use. If you note any areas left out or disagree with a determination you must contact this office within fifteen days of the receipt of this letter.

We have also forwarded a copy of the SCS-CPA-26 and map to the county ASCS office.

There are no Highly Erodible soils identified on the farm.

Fields and unnumbered areas that are identified as Prior Converted Wetlands "P C" are not subject to the Food and Security Act and can be drained, altered or modified so long as they are PLANTED AT LEAST ONCE EVERY FIVE YEARS.

Fields that are identified as Wetlands "W" or Farmed Wetlands "FW" should not be altered to plant any annual crop unless a determination is made that such alteration is in compliance with the 1985 Food and Security Act. If you have a question here you must contact this office prior to any work being done on the wetland area. Wetlands cannot be manipulated in any way including the removal of trees, draining, or filling. Conversion of wetlands to any other use such as roads, buildings, pasture, etc. or maintenance of existing drainage systems must be approved in advance.

Fields that are identified as Non Hydric "N" are not subject to Food and Security Act.

Wetland determinations may not have been made on any of the "OUT" areas, such as roads, ditches, and runways. If you intend to bring any of these areas into crop production please contact us ahead of time to obtain a determination.

NOTE: If you intend to convert additional land to cropland or alter any wetlands, you must initiate another Form AD-1026 at the local office of the ASCS. Abandonment is where land has not been cropped for 5 years. You should

inform SCS if you plan to produce an agricultural commodity on abandoned wetlands.

If you have any questions, please call (409) 267-3581. Our office is open weekdays between seven and four thirty. A percentage of my work is done in the field so you should call before coming by.

Sincerely,



Jess J. Jackson Jr.
District Conservationist

cc: Chambers County ASCS
Anahuac SCS

U.S.D.A. Soil Conservation Service HIGHLY ERODIBLE LAND AND WETLAND CONSERVATION DETERMINATION	SCS-CPA-026 (June 91)	1. Name and Address of Person <u>T. F. Jenkins</u> <u>Box 145</u> <u>Winnie, TX 77665</u>	2. Date of Request <u>3-30-87</u> 3. County <u>Chambers</u>
4. Name of USDA Agency or Person Requesting Determination <u>ASCS</u>		5. Farm No. and Tract No. <u>F27 T330</u>	

SECTION I - HIGHLY ERODIBLE LAND		
	FIELD NO.(s)	TOTAL ACRES
6. Is soil survey now available for making a highly erodible land determination? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
7. Are there highly erodible soil map units on this farm? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
8. List highly erodible fields that, according to ASCS records, were used to produce an agricultural commodity in any crop year during 1981-1985.		
9. List highly erodible fields that have been or will be converted for the production of agricultural commodities and, according to ASCS records, were not used for this purpose in any crop year during 1981-1985; and were not enrolled in a USDA set-aside or diversion program.		
10. This Highly Erodible Land determination was completed in the: Office <input checked="" type="checkbox"/> Field <input type="checkbox"/>		

SECTION II - WETLAND		
	FIELD NO.(s)	TOTAL ACRES
11. Are there hydric soils on this farm? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
12. Wetlands (W), including abandoned wetlands, or Farmed Wetlands (FW) or Farmed Wetlands Pasture (FWP). Wetlands may be farmed under natural conditions. Farmed Wetlands and Farmed Wetlands Pasture may be farmed and maintained in the same manner as they were prior to December 23, 1985, as long as they are not abandoned.	<u>lin 2, lin 3,</u> <u>lin 4, 5b</u>	<u>15.5</u>
13. Prior Converted Cropland (PC). Wetlands that were converted prior to December 23, 1985. The use, management, drainage, and alteration of prior converted cropland (PC) are not subject to the wetland conservation provisions unless the area reverts to wetland as a result of abandonment.	<u>1, 2, 3, 4, 5, 6, 7,</u> <u>9, 10, 11, 30, 32,</u> <u>34</u>	<u>362</u>
14. Artificial Wetlands (AW). Artificial wetlands includes irrigation-induced wetlands. These wetlands are not subject to the wetland conservation provisions.	<u>lin 1</u>	<u>60</u>
Minimal Effect Wetlands (MW). These wetlands are to be farmed according to the minimal-effect agreement signed at the time the minimal-effect determination was made.		
15. Mitigation Wetlands (MW). Wetlands on which a person is actively mitigating a frequently cropped area or a wetland converted between December 23, 1985 and November 28, 1990.		
17. Restoration with Violation (RVW-year). A restored wetland that was in violation as a result of conversion after November 28, 1990, or the planting of an agricultural commodity or forage crop.		
18. Restoration without Violation (RSW). A restored wetland converted between December 23, 1985 and November 28, 1990, on which an agricultural commodity has not been planted.		
19. Replacement Wetlands (RPW). Wetlands which are converted for purposes other than to increase production, where the wetland values are being replaced at a second site.		
20. Good Faith Wetlands (GFW-year). Wetlands on which ASCS has determined a violation to be in good faith and the wetland has been restored.		
21. Converted Wetlands (CW). Wetlands converted after December 23, 1985 and prior to November 28, 1990. In any year that an agricultural commodity is planted on these Converted Wetlands, you will be ineligible for USDA benefits.		
22. Converted Wetland (CW-year). Wetlands converted after November 28, 1990. You will be ineligible for USDA program benefits until this wetland is restored.		
23. Converted Wetland Non-Agricultural use (CWNA). Wetlands that are converted for trees, fish production, shrubs, cranberries, vineyards or building and road construction.		
24. Converted Wetland Technical Error (CWTE). Wetlands that were converted as a result of incorrect determination by SCS.		
25. The planned alteration measures on wetlands in fields _____ are considered maintenance and are in compliance with FSA.		
26. The planned alteration measures on wetlands in fields _____ are not considered to be maintenance and if installed will cause the area to become a Converted Wetland (CW). See item 22 for information on CW-year.		
27. The wetland determination was completed in the office <input type="checkbox"/> field <input type="checkbox"/> and was delivered <input type="checkbox"/> mailed <input checked="" type="checkbox"/> to the person on <u>2-24-92</u> .		
28. Remarks. <u>Total farm determination complete.</u>		

29. I certify that the above determination is correct and adequate for use in determining eligibility for USDA program benefits, and that wetland hydrology, hydric soils, and hydrophytic vegetation under normal circumstances exist on all areas outlined as Wetlands, Farmed Wetlands, and Farmed Wetlands Pasture.	30. Signature of SCS District Conservationist <u>[Signature]</u> 31. Date <u>23 Jan '92</u>
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Assistance and programs of the Soil Conservation Service available without regard to race, religion, color, sex, age, or handicap.

U.S.D.A. Soil Conservation Service		SCS-CPA-026 (1-88)	1. Name and Address of Person <i>T.F. Jenkins</i> <i>Box 145</i> <i>Winnie TX 77665</i>	2. Date of Request <i>3-30-87</i>
HIGHLY ERODIBLE LAND AND WETLAND CONSERVATION DETERMINATION			3. County <i>Chambers</i>	
4. Name of USDA Agency or Person Requesting Determination <i>ASCS</i>			5. Farm No. and Tract No. <i>27 T 330</i>	

SECTION I - HIGHLY ERODIBLE LAND

6. Is soil survey now available for making a highly erodible land determination?	Yes	No	Field No.(s)	Total Acres
	<input checked="" type="checkbox"/>			
7. Are there highly erodible soil map units on this farm?		<input checked="" type="checkbox"/>		
8. List highly erodible fields that, according to ASCS records, were used to produce an agricultural commodity in any crop year during 1981-1985.				
9. List highly erodible fields that have been or will be converted for the production of agricultural commodities and, according to ASCS records, were not used for this purpose in any crop year during 1981-1985; and were not enrolled in a USDA set-aside or diversion program.				
10. This Highly Erodible Land determination was completed in the: Office <input type="checkbox"/> Field <input type="checkbox"/>				

NOTE: If you have highly erodible cropland fields, you may need to have a conservation plan developed for these fields. For further information, contact the local office of the Soil Conservation Service.

SECTION II - WETLAND

11. Are there hydric soils on this farm?	Yes	No	Field No.(s)	Total Wetland Acres
	<input checked="" type="checkbox"/>			
List field numbers and acres, where appropriate, for the following EXEMPTED WETLANDS:				
12. Wetlands (W), including abandoned wetlands, or Farmed Wetlands (FW). Wetlands may be farmed under natural conditions. Farmed Wetlands may be farmed and maintained in the same manner as they were prior to December 23, 1985, as long as they are not abandoned.			<i>1</i>	<i>1</i>
13. Prior Converted Wetlands (PC) - The use, management, drainage, and alteration of prior converted wetlands (PC) are not subject to FSA unless the area reverts to wetland as a result of abandonment. You should inform SCS of any area to be used to produce an agricultural commodity that has not been cropped, managed, or maintained for 5 years or more.			<i>See CPA 026A</i>	
14. Artificial Wetlands (AW) - Artificial Wetlands includes irrigation induced wetlands. These Wetlands are not subject to FSA.				
15. Minimal Effect Wetlands (MW) - These wetlands are to be farmed according to the minimal effect agreement signed at the time the minimal effect determination was made.				

NON-EXEMPTED WETLANDS:

16. Converted Wetlands (CW) - In any year that an agricultural commodity is planted on these Converted Wetlands, you will be ineligible for USDA benefits. If you believe that the conversion was commenced before December 23, 1985, or that the conversion was caused by a third party, contact the ASCS office to request a commenced or third party determination.				
--	--	--	--	--

17. The planned alteration measures on wetlands in fields _____ are considered maintenance and are in compliance with FSA.

18. The planned alteration measures on wetlands in fields _____ are not considered to be maintenance and if installed will cause the area to become a Converted Wetland (CW). See Item 16 for information on CW.

19. This wetland determination was completed in the: Office ☐ Field ☒

20. This determination was: Delivered ☐ Mailed ☒ To the Person on Date: _____

NOTE: If you do not agree with this determination, you may request a reconsideration from the person that signed this form in Block 22 below. The reconsideration is a prerequisite for any further appeal. The request for the reconsideration must be in writing and must state your reasons for the request. The request must be mailed or delivered within 15 days after this determination is mailed to or otherwise made available to you. Please see reverse side of the producer's copy of this form for more information on appeals procedure.

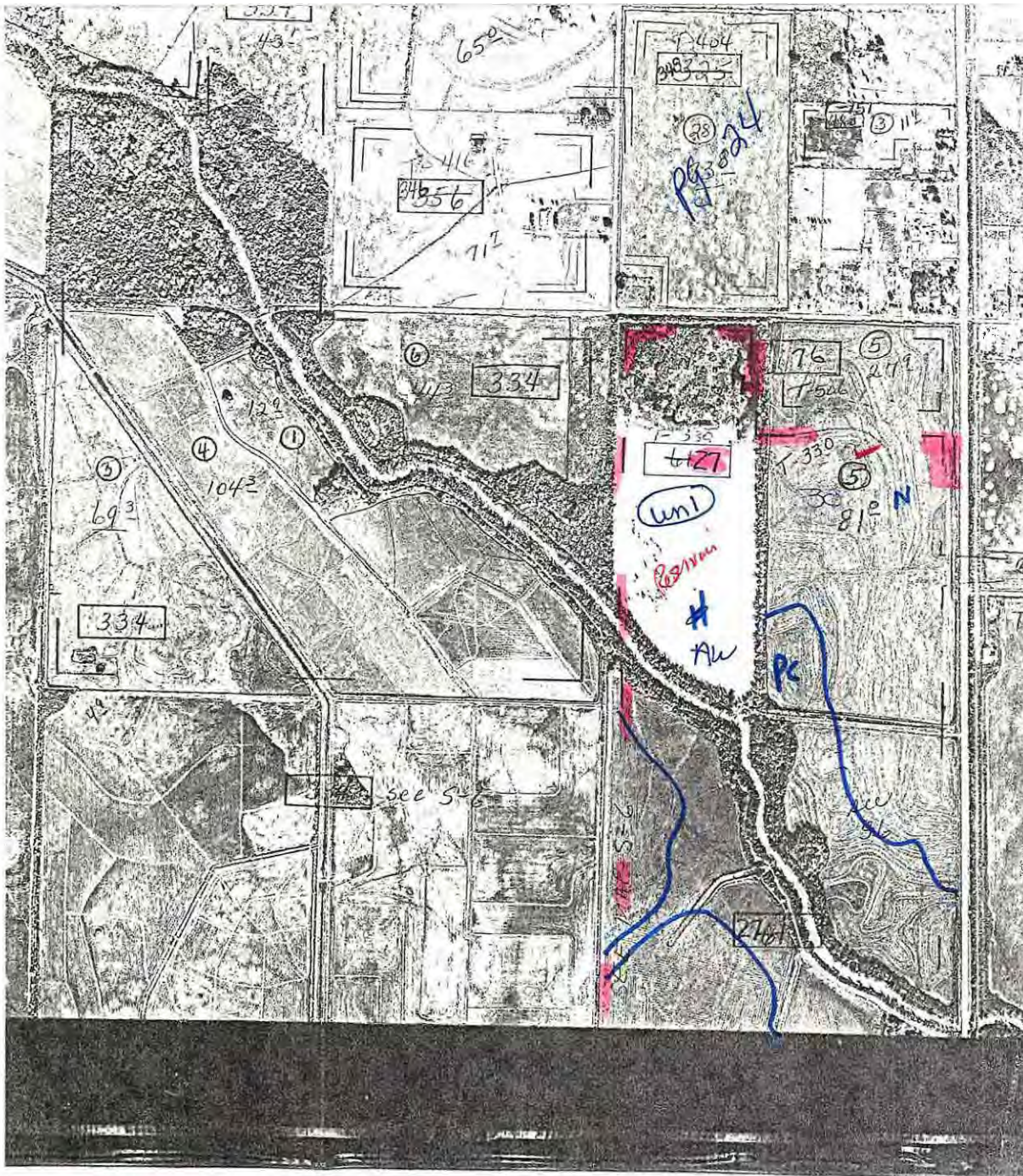
NOTE: If you intend to convert additional land to cropland or alter any wetlands, you must initiate another Form AD-1026 at the local office of ASCS. Abandonment is where land has not been cropped, managed, or maintained for 5 years or more. You should inform SCS if you plan to produce an agricultural commodity on abandoned wetlands.

21. Remarks
Total farm determination complete

22. Signature of SCS District Conservationist <i>Edward Sridharan</i>	23. Date <i>2-28-88</i>
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Assistance and programs of the Soil Conservation Service available without regard to race, religion, color, sex, age, handicap, etc.

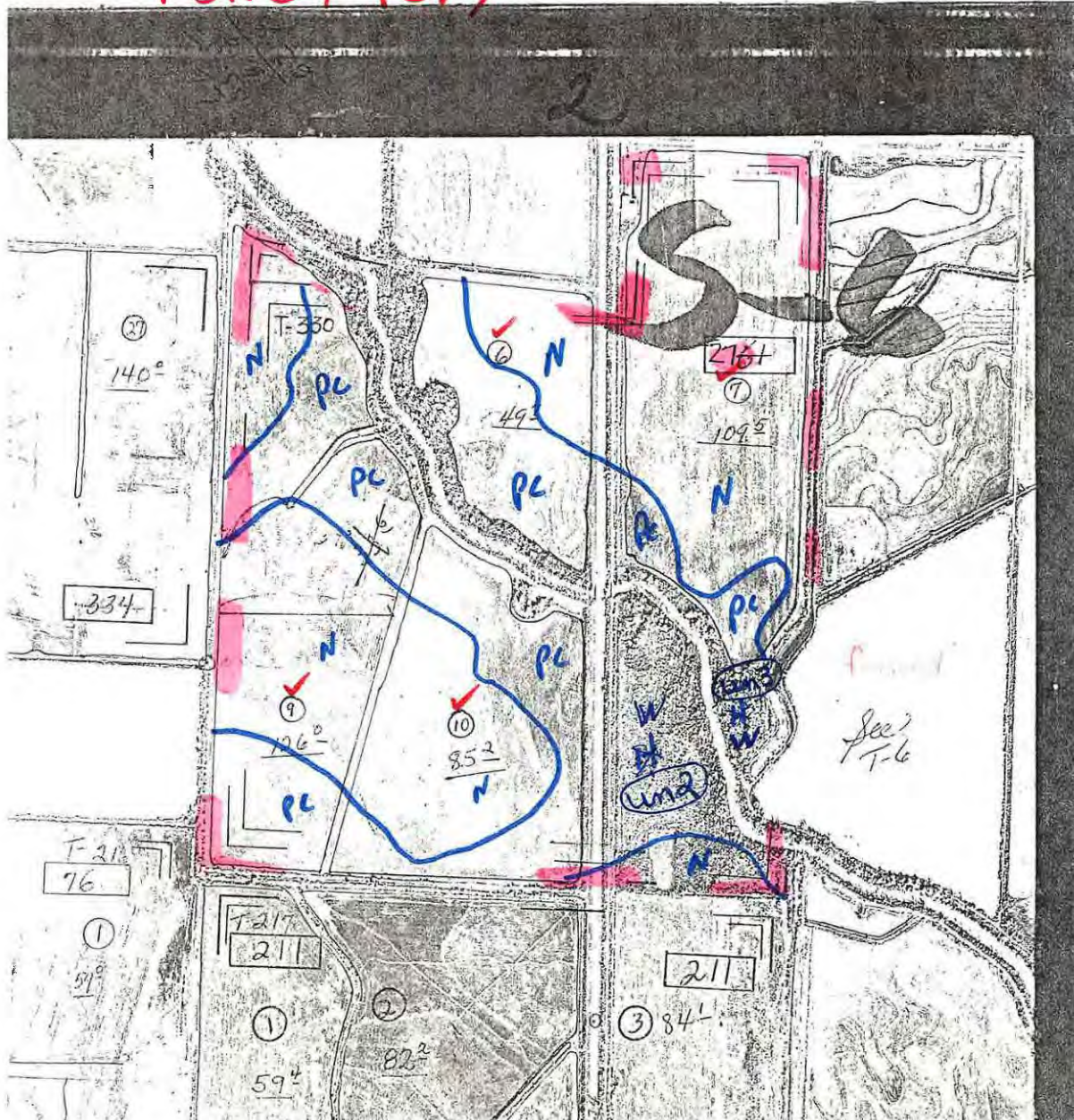
SCS Copy

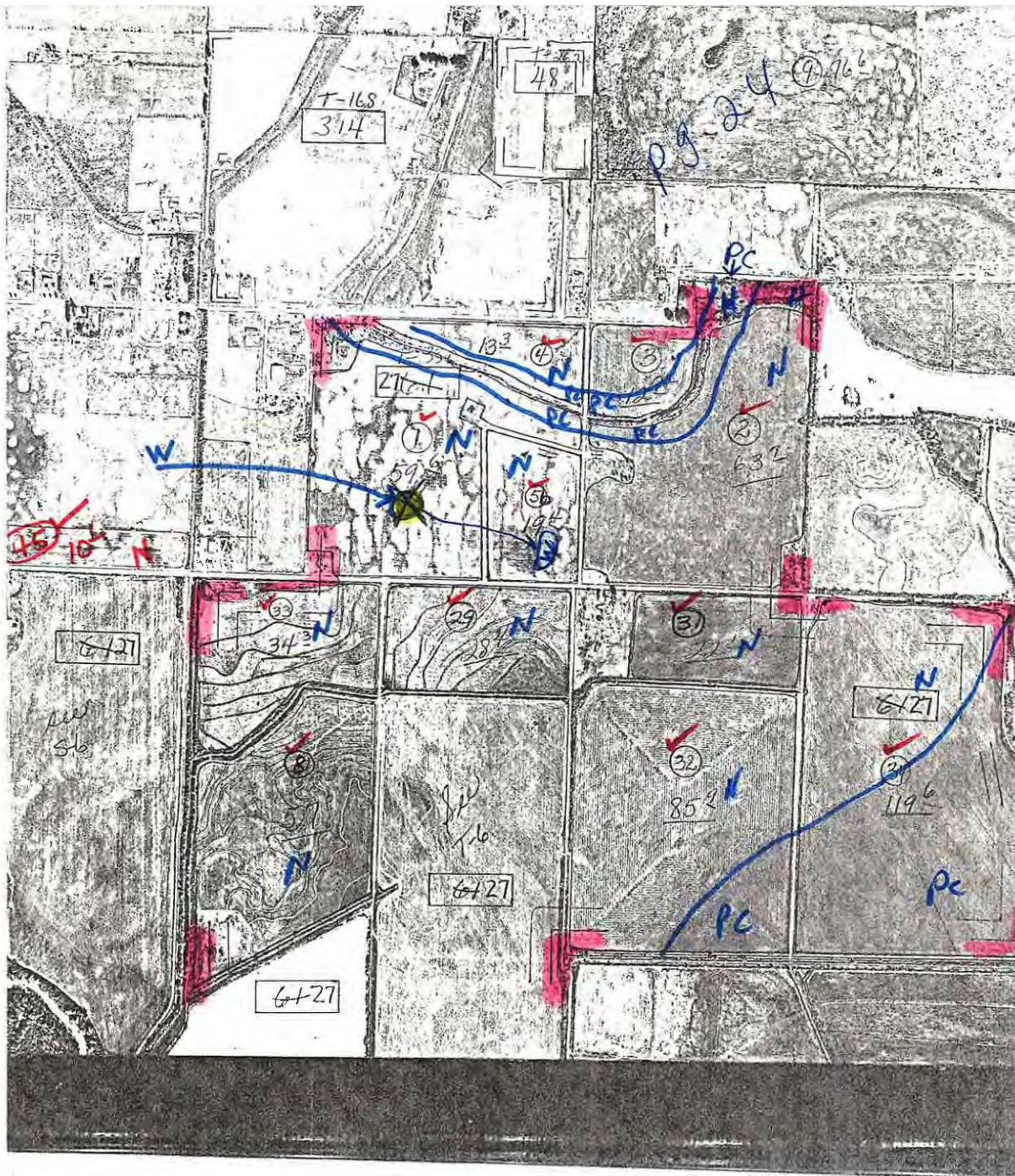


S-5 T-330
FSN 27 (617)

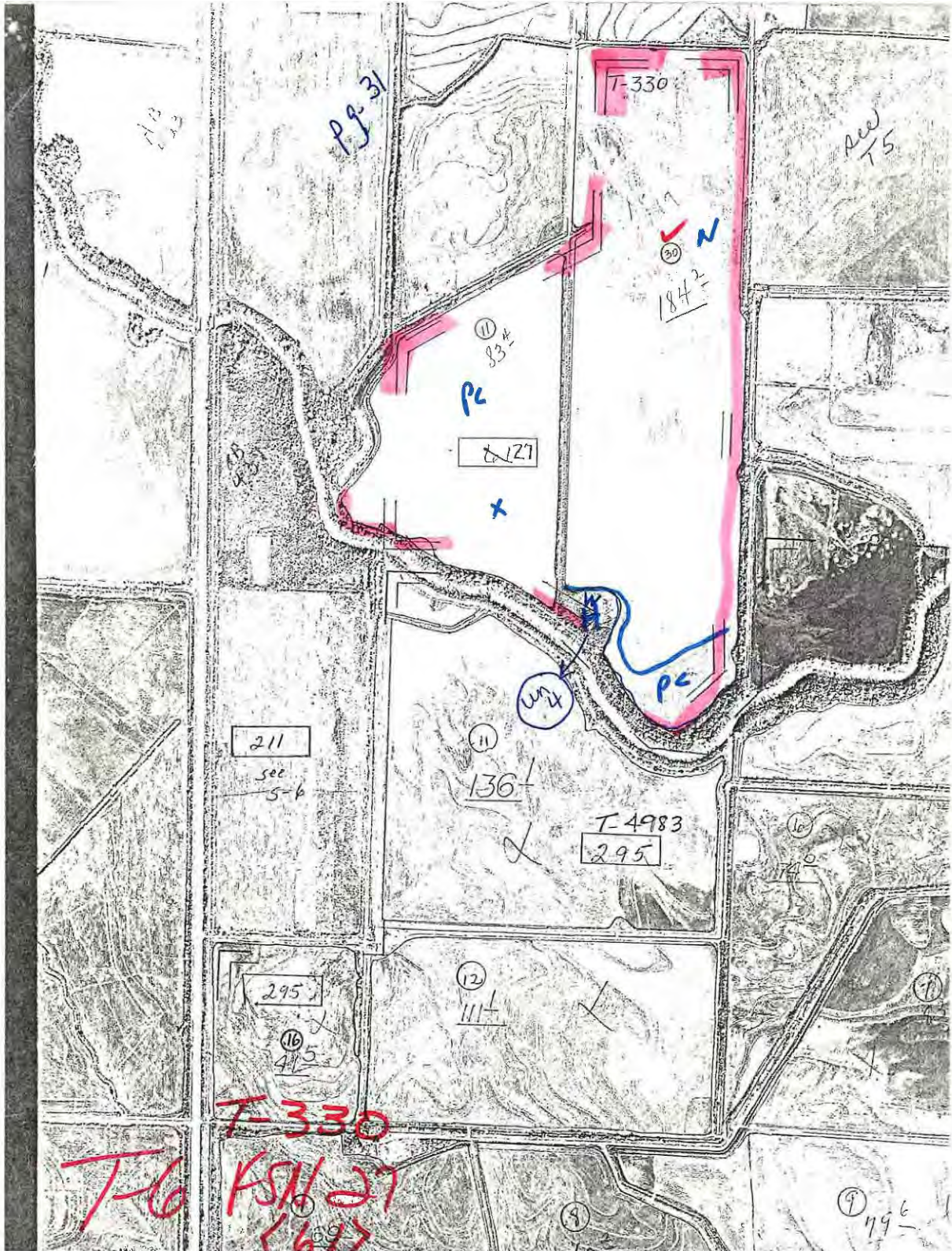
Wetland

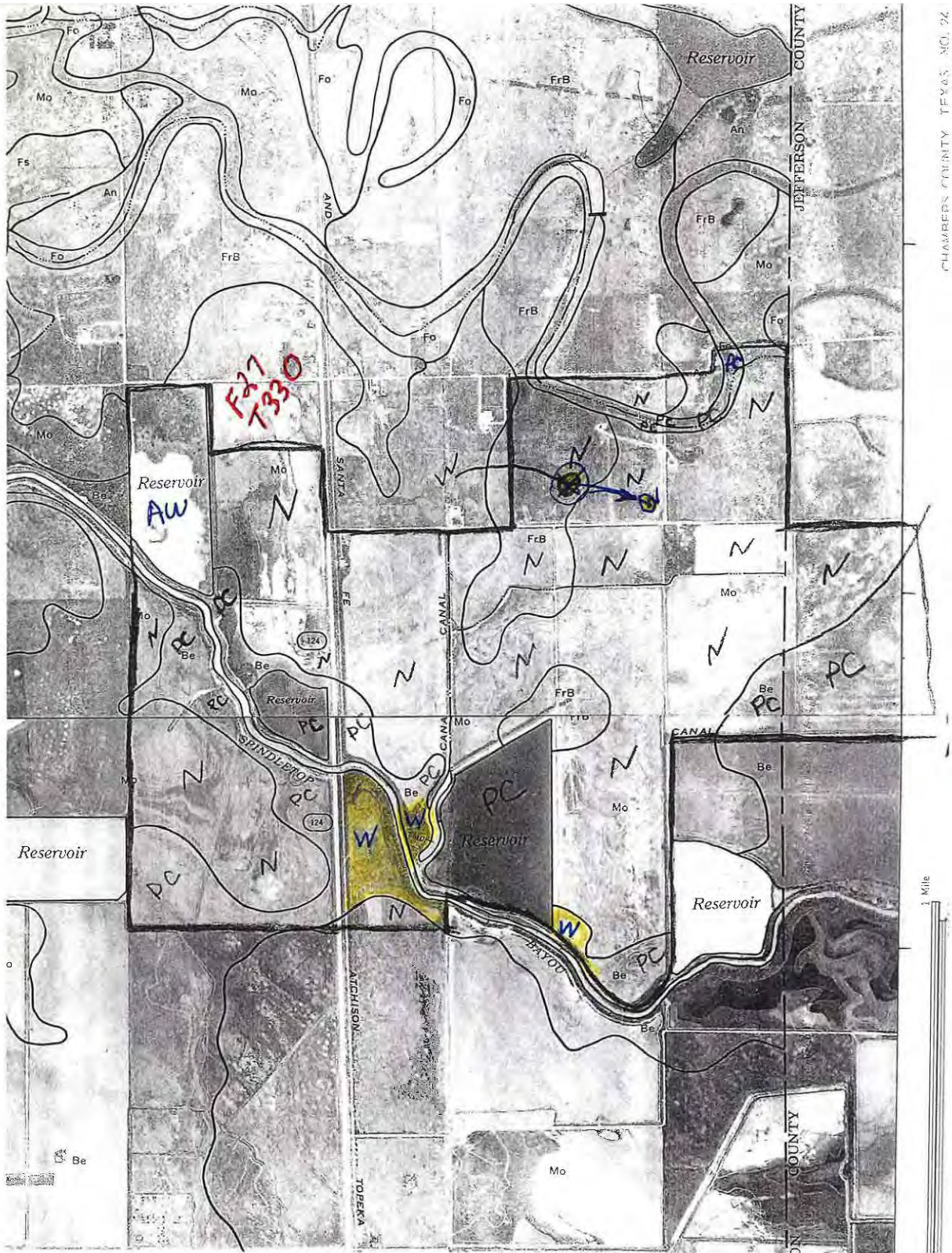
T-330
FSN 27 (61)





T-5 FSN27 (617)
T-330







Mr. Billy York
HJN 150158 WD
26 July 2016
Page 3

ATTACHMENT C
DATA SHEETS

Middleton Estate 241-ac AJD draft.doc

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Middleton Estate 241 ac City/County: Chambers County Sampling Date: April 6, 2016
 Applicant/Owner: Billy York State: Texas Sampling Point: 975
 Investigator(s): Lee Sherrod and Scott Flesher Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Farm Field Local relief (concave, convex, none): diked - farmed Slope (%): ~1
 Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29.751321° Long: -94.382328° Datum: _____
 Soil Map Unit Name: Meaton-Levac Complex, 0 to 1 percent slopes, rarely flooded NWI classification: None
 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 checked="" type="checkbox"/> No <input 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 checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: Sampling point is within a rice field that was farmed in 2015. Levees still remain. Vegetation is indicative of recent rice farming with numerous adventive wetland species. Soils have been repeatedly plowed and artificially flooded.		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" 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 along Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input checked="" 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 checked="" 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:		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____ (includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Area has been artificially flooded for rice farming		

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

Sampling Point: 975

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A) Total Number of Dominant Species Across All Strata: <u>7</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = _____
				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Sapling/Shrub Stratum (Plot size: _____) 1. <i>Sesbania drummondii</i> 5 Yes FACW 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover 50% of total cover: 0% 20% of total cover: 0%				
Herb Stratum (Plot size: _____) 1. <i>Oryza sativa</i> 15 Yes OBL 2. <i>Eleocharis parvula</i> 30 Yes OBL 3. <i>Eleocharis cellulosa</i> 10 Yes OBL 4. <i>Juncus brachycarpus</i> 15 Yes FACW 5. <i>Alopecurus carolinianus</i> 5 No FACW 6. <i>Panicum hydrophiloides</i> 10 Yes OBL 7. <i>Cyperus virens</i> 10 Yes FACW 8. <i>Briza minor</i> 5 No FAC 9. _____ 10. _____ 11. _____ 12. _____ _____ = Total Cover 50% of total cover: 50% 20% of total cover: 20%				
Woody Vine Stratum (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover 50% of total cover: 0% 20% of total cover: 0%				
Remarks: (If observed, list morphological adaptations below). Vegetation is adventive from recent rice farming.				

SOIL

Sampling Point: 975

[illegible]

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Middleton Estate 241 ac City/County: Chambers County Sampling Date: April 6, 2016
 Applicant/Owner: Billy York State: Texas Sampling Point: 976
 Investigator(s): Lee Sherrod and Scott Flesher Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Levee Local relief (concave, convex, none): slope Slope (%): 10
 Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29.759300° Long: -94.382715° Datum: _____
 Soil Map Unit Name: Beaumont clay, 0 to 1 percent slopes, rarely flooded NWI classification: None
 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 checked="" type="checkbox"/> No <input 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: Sampling point is on a man-made levee.		

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <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 along 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)		Secondary Indicators (minimum of two required) <input checked="" 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 checked="" 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): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (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:		
Remarks: Area has been artificially flooded for rice farming		

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

Sampling Point: 976

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <i>Celtis occidentalis</i>	20	Yes	FAC	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>7</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>57%</u> (A/B) Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = _____ Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. <i>Sapum sebiferum</i>	35	Yes	FACU	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
55% = Total Cover				
50% of total cover: <u>28%</u> 20% of total cover: <u>11%</u>				
Sapling/Shrub Stratum (Plot size: _____)				
1. <i>Ligustrum sinense</i>	20	Yes	FAC	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. <i>Ilex vomitoria</i>	35	Yes	FAC	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
65% = Total Cover				
50% of total cover: <u>33%</u> 20% of total cover: <u>13%</u>				
Herb Stratum (Plot size: _____)				
1. <i>Cynodon dactylon</i>	20	Yes	FACU	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. <i>Sorghum halapense</i>	5	Yes	FACU	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
25% = Total Cover				
50% of total cover: <u>13%</u> 20% of total cover: <u>5%</u>				
Woody Vine Stratum (Plot size: _____)				
1. <i>Smilax bonariensis</i>	15	Yes	FAC	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
15% = Total Cover				
50% of total cover: <u>8%</u> 20% of total cover: <u>3%</u>				
Remarks: (If observed, list morphological adaptations below)				

SOIL

Sampling Point: 976

[illegible]

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Middleton Estate 241 ac City/County: Chambers County Sampling Date: April 6, 2016
 Applicant/Owner: Billy York State: Texas Sampling Point: 977
 Investigator(s): Lee Sherrod and Scott Flesher Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Farm Field Local relief (concave, convex, none): diked - farmed Slope (%): ~1
 Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29.751321° Long: -94.380690° Datum: _____
 Soil Map Unit Name: Meaton-Levac Complex, 0 to 1 percent slopes, rarely flooded NWI classification: None
 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 checked="" type="checkbox"/> No <input 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 checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: Sampling point is within a rice field that was farmed in 2015. Levees still remain. Vegetation is indicative of recent rice farming with numerous adventive wetland species. Soils have been repeatedly plowed and artificially flooded.		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" 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 along 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 checked="" 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:		
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Area has been artificially flooded for rice farming		

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

Sampling Point: 977

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status																																																					
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SOIL

Sampling Point: 977

[illegible]

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Middleton Estate 241 ac City/County: Chambers County Sampling Date: April 6, 2016
 Applicant/Owner: Billy York State: Texas Sampling Point: 978
 Investigator(s): Lee Sherrod and Scott Flesher Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Farm Field Local relief (concave, convex, none): diked - farmed Slope (%): ~1
 Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29.751152° Long: -94.380948° Datum: _____
 Soil Map Unit Name: Meaton-Levac Complex, 0 to 1 percent slopes, rarely flooded NWI classification: None
 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 checked="" type="checkbox"/> No <input 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 checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: Sampling point is within a rice field that was farmed in 2015. Levees still remain. Vegetation is indicative of recent rice farming with numerous adventive wetland species. Soils have been repeatedly plowed and artificially flooded.		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" 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 along 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 checked="" 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:		
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Area has been artificially flooded for rice farming		

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

Sampling Point: 978

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SOIL

Sampling Point: 978

[illegible]

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Middleton Estate 241 ac City/County: Chambers County Sampling Date: April 6, 2016
 Applicant/Owner: Billy York State: Texas Sampling Point: 979
 Investigator(s): Lee Sherrod and Scott Flesher Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Farm Field Local relief (concave, convex, none): diked - farmed Slope (%): ~1
 Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29.749403° Long: -94.381471° Datum: _____
 Soil Map Unit Name: Meaton-Levac Complex, 0 to 1 percent slopes, rarely flooded NWI classification: None
 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 checked="" type="checkbox"/> No <input 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 checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: Sampling point is within a rice field that was farmed in 2015. Levees still remain. Vegetation is indicative of recent rice farming with numerous adventive wetland species. Soils have been repeatedly plowed and artificially flooded.		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
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Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Area has been artificially flooded for rice farming		

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

Sampling Point: 979

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
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8. _____	_____	_____	_____	
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				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Sapling/Shrub Stratum (Plot size: _____) 1. <i>Sesbania drummondii</i> <u>2</u> Yes FACW 2. _____ - - - 3. _____ - - - 4. _____ - - - 5. _____ - - - 6. _____ - - - 7. _____ - - - 8. _____ - - - _____ = Total Cover 50% of total cover: <u>0%</u> 20% of total cover: <u>0%</u>				
Herb Stratum (Plot size: _____) 1. <i>Eleocharis montevidensis</i> <u>60</u> Yes FACW 2. <i>Eleocharis parvula</i> <u>10</u> No OBL 3. <i>Juncus brachycarpus</i> <u>15</u> No FACW 4. <i>Hydrocotyle bonariensis</i> <u>5</u> No FACW 5. <i>Cyperus virens</i> <u>5</u> No FACW 6. <i>Alopecurus carolinensis</i> <u>5</u> No FACW 7. _____ - - - 8. _____ - - - 9. _____ - - - 10. _____ - - - 11. _____ - - - 12. _____ - - - _____ = Total Cover 50% of total cover: <u>50%</u> 20% of total cover: <u>20%</u>				
Woody Vine Stratum (Plot size: _____) 1. _____ - - - 2. _____ - - - 3. _____ - - - 4. _____ - - - 5. _____ - - - _____ = Total Cover 50% of total cover: <u>0%</u> 20% of total cover: <u>0%</u>				
Remarks: (If observed, list morphological adaptations below). Vegetation is adventive from recent rice farming.				

SOIL

Sampling Point: 979

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 6/2	100					Silty sandy loam	
3-9	10YR 3/1	90	7.5YR 4/6	20	RM	M	silty clay	
9-24	2.5YR 5/6	100					Clay	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.								
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)								
<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U) <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U) <input type="checkbox"/> Muck Presence (A8) (LRR U) <input type="checkbox"/> 1 cm Muck (A9) (LRR P, T) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A) <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U) </div> <div style="width: 33%;"> <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U) <input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U) <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Marl (F10) (LRR U) <input type="checkbox"/> Depleted Ochric (F11) (MLRA 151) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T) <input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U) <input type="checkbox"/> Delta Ochric (F17) (MLRA 151) <input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A) <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) </div> <div style="width: 33%;"> <input type="checkbox"/> 1 cm Muck (A9) (LRR O) <input type="checkbox"/> 2 cm Muck (A10) (LRR S) <input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A,B) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, S, T) <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 153B) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div>								
³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.								
Restrictive Layer (if observed): Type: _____ Depth (inches): _____								
Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>								
Remarks: Meaton-Levac Complex. Soil has been plowed and artificially flooded for rice farming.								

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Middleton Estate 241 ac City/County: Chambers County Sampling Date: April 6, 2016
Applicant/Owner: Billy York State: Texas Sampling Point: 980
Investigator(s): Lee Sherrod and Scott Flesher Section, Township, Range:
Landform (hillslope, terrace, etc.): Farm Field Local relief (concave, convex, none): diked - farmed Slope (%): ~1
Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29.747806° Long: -94.381774° Datum:
Soil Map Unit Name: Beaumont silty clay, 0 to 1 percent slopes, rarely flooded NWI classification: PF
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 checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: Sampling point is within a rice field that was farmed in 2015. Levees still remain. Vegetation is indicative of recent rice farming with numerous adventive wetland species. Soils have been repeatedly plowed and artificially flooded.		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" 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 checked="" 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 along 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 checked="" type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" 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:		
Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): 0-2	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches):	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): 6	
(includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Area has been artificially flooded for rice farming		

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

Sampling Point: 980

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
		0% = Total Cover		
50% of total cover: 0%		20% of total cover: 0%		
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
		0% = Total Cover		
50% of total cover: 0%		20% of total cover: 0%		
Herb Stratum (Plot size: _____)				
1. <i>Eleocharis montevidensis</i>	40	Yes	FACW	
2. <i>Eleocharis parvula</i>	10	No	OBL	
3. <i>Juncus brachycarpus</i>	15	Yes	FACW	
4. <i>Oryza sativa</i>	15	Yes	FACW	
5. <i>Cyperus virens</i>	5	No	FACW	
6. <i>Alopecurus carolinensis</i>	5	No	FACW	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
		90% = Total Cover		
50% of total cover: 45%		20% of total cover: 18%		
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		0% = Total Cover		
50% of total cover: 0%		20% of total cover: 0%		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of: _____ Multiply by: _____

OBL species _____ x 1 = _____

FACW species _____ x 2 = _____

FAC species _____ x 3 = _____

FACU species _____ x 4 = _____

UPL species _____ x 5 = _____

Column Totals: 0 (A) 0 (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

☒ 1 - Rapid Test for Hydrophytic Vegetation

☐ 2 - Dominance Test is >50%

☐ 3 - Prevalence Index is ≤3.0¹

☐ Problematic Hydrophytic Vegetation¹ (Explain)

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

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: (If observed, list morphological adaptations below).

Vegetation is adventive from recent rice farming.

SOIL

Sampling Point: 980

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 6/2	100					Silt.	
2-7	10YR 3/1	90	10YR 4/6	20	RM	M	clay	
8-24	10YR 2/1	100					Clay	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.								
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)								
<div style="display: flex; flex-wrap: wrap;"> <div style="flex: 1; min-width: 200px;"> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U) <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U) <input type="checkbox"/> Muck Presence (A8) (LRR U) <input type="checkbox"/> 1 cm Muck (A9) (LRR P, T) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A) <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U) </div> <div style="flex: 1; min-width: 200px;"> <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U) <input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U) <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Marl (F10) (LRR U) <input type="checkbox"/> Depleted Ochric (F11) (MLRA 151) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T) <input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U) <input type="checkbox"/> Delta Ochric (F17) (MLRA 151) <input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A) <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) </div> <div style="flex: 1; min-width: 200px;"> <input type="checkbox"/> 1 cm Muck (A9) (LRR O) <input type="checkbox"/> 2 cm Muck (A10) (LRR S) <input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A,B) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, S, T) <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 153B) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div>								
³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.								
Restrictive Layer (if observed): Type: _____ Depth (inches): _____								
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>								
Remarks: Beaumont Silty Clay. Soil has been plowed and artificially flooded for rice farming.								

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Middleton Estate 241 ac City/County: Chambers County Sampling Date: April 6, 2016
Applicant/Owner: Billy York State: Texas Sampling Point: 981
Investigator(s): Lee Sherrod and Scott Flesher Section, Township, Range: _____
Landform (hillslope, terrace, etc.): Farm Field Local relief (concave, convex, none): diked - farmed Slope (%): ~1
Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29.747716° Long: -94.378822° Datum: _____
Soil Map Unit Name: Beaumont silty clay, 0 to 1 percent slopes, rarely flooded NWI classification: PF
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 checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: Sampling point is within a rice field that was farmed in 2015. Levees still remain. Vegetation is indicative of recent rice farming with numerous adventive wetland species. Soils have been repeatedly plowed and artificially flooded.		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" 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 along 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 checked="" type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" 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:		
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Area has been artificially flooded for rice farming		

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

Sampling Point: 981

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = _____
				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Sapling/Shrub Stratum (Plot size: _____) 1. <i>Sesbania drummondii</i> 5 Yes FACW 2. _____ - - - 3. _____ - - - 4. _____ - - - 5. _____ - - - 6. _____ - - - 7. _____ - - - 8. _____ - - - _____ = Total Cover 50% of total cover: <u>0%</u> 20% of total cover: <u>0%</u>				
Herb Stratum (Plot size: _____) 1. <i>Eleocharis montevidensis</i> 50 Yes FACW 2. <i>Eleocharis parvula</i> 10 No OBL 3. <i>Juncus brachycarpus</i> 20 Yes FACW 4. <i>Oryza sativa</i> 15 No FACW 5. <i>Cyperus viridis</i> 5 No FACW 6. _____ - - - 7. _____ - - - 8. _____ - - - 9. _____ - - - 10. _____ - - - 11. _____ - - - 12. _____ - - - _____ = Total Cover 50% of total cover: <u>50%</u> 20% of total cover: <u>20%</u>				
Woody Vine Stratum (Plot size: _____) 1. _____ - - - 2. _____ - - - 3. _____ - - - 4. _____ - - - 5. _____ - - - _____ = Total Cover 50% of total cover: <u>0%</u> 20% of total cover: <u>0%</u>				
Remarks: (If observed, list morphological adaptations below). Vegetation is adventive from recent rice farming.				

SOIL

Sampling Point: 981

[illegible]

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Middleton Estate 241 ac City/County: Chambers County Sampling Date: April 6, 2016
 Applicant/Owner: Billy York State: Texas Sampling Point: 982
 Investigator(s): Lee Sherrod and Scott Flesher Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Farm Field Local relief (concave, convex, none): diked - farmed Slope (%): ~1
 Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29.748758° Long: -94.378275° Datum: _____
 Soil Map Unit Name: Meaton-Levac Complex, 0 to 1 percent slopes, rarely flooded NWI classification: None
 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 checked="" type="checkbox"/> No <input 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: Sampling point is within a rice field that was farmed in 2015. Levees still remain. Vegetation is indicative of recent rice farming with numerous adventive wetland species. Soils have been repeatedly plowed and artificially flooded.		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" 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 along 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:		
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Area has been artificially flooded for rice farming		

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

Sampling Point: 982

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status																																																																																																
1. _____	_____	_____	_____																																																																																																
2. _____	_____	_____	_____																																																																																																
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SOIL

Sampling Point: 982

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		
0-2	10YR 6/2	100				Silt.	
2-8	10YR 4/2	90	10YR 4/6	10	RM	clay	
8-24	10YR 7/2	80	10 YR 8/6	40	RM	Sandy Clay	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.						² Location: PL=Pore Lining, M=Matrix.	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)							
<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U) <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U) <input type="checkbox"/> Muck Presence (A8) (LRR U) <input type="checkbox"/> 1 cm Muck (A9) (LRR P, T) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A) <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U) </div> <div style="width: 33%;"> <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U) <input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U) <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Marl (F10) (LRR U) <input type="checkbox"/> Depleted Ochric (F11) (MLRA 151) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T) <input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U) <input type="checkbox"/> Delta Ochric (F17) (MLRA 151) <input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A) <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) </div> <div style="width: 33%;"> <input type="checkbox"/> 1 cm Muck (A9) (LRR O) <input type="checkbox"/> 2 cm Muck (A10) (LRR S) <input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A,B) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, S, T) <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 153B) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> </div>							
Restrictive Layer (if observed): Type: _____ Depth (inches): _____						Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks: Meaton-Levac Complex. Soil has been plowed and artificially flooded for rice farming.							

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Middleton Estate 241 ac City/County: Chambers County Sampling Date: April 6, 2016
Applicant/Owner: Billy York State: Texas Sampling Point: 983
Investigator(s): Lee Sherrod and Scott Flesher Section, Township, Range: _____
Landform (hillslope, terrace, etc.): Farm Field Local relief (concave, convex, none): diked - farmed Slope (%): ~1
Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29.747716° Long: -94.378822° Datum: _____
Soil Map Unit Name: Beaumont silty clay, 0 to 1 percent slopes, rarely flooded NWI classification: PF
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 checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: Sampling point is within a rice field that was farmed in 2015. Levees still remain. Vegetation is indicative of recent rice farming with numerous adventive wetland species. Soils have been repeatedly plowed and artificially flooded.		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" 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 along 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 checked="" type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" 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:		
Surface Water Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-2</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Area has been artificially flooded for rice farming		

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

Sampling Point: 983

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
0% = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = _____
50% of total cover: <u>0%</u> 20% of total cover: <u>0%</u>				
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_____ = Total Cover				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
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_____ = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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SOIL

Sampling Point: 983

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 6/2	100					Silt.	
3-7	10YR 4/1	90	10YR 4/5	10	RM	M	clay	
7-10	10YR 3/1	95	10YR 4/5	5	RM	M	clay	
10-24	10YR 4/1	95	10YR 4/5	5	RM	M	clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils ³ :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U)	<input type="checkbox"/> 1 cm Muck (A9) (LRR O)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)	<input type="checkbox"/> 2 cm Muck (A10) (LRR S)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)	<input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A,B)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, S, T)			
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 153B)			
<input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Red Parent Material (TF2)			
<input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input type="checkbox"/> Muck Presence (A8) (LRR U)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)	<input type="checkbox"/> Marl (F10) (LRR U)				
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)				
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)				
<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A)	<input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)				
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)	<input type="checkbox"/> Delta Ochric (F17) (MLRA 151)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)				
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)				
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)				
<input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)					

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 <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:
Beaumont Silty Clay. Soil has been plowed and artificially flooded for rice farming.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Middleton Estate 241 ac City/County: Chambers County Sampling Date: April 6, 2016
Applicant/Owner: Billy York State: Texas Sampling Point: 984
Investigator(s): Lee Sherrod and Scott Flesher Section, Township, Range: _____
Landform (hillslope, terrace, etc.): Farm Field Local relief (concave, convex, none): diked - farmed Slope (%): ~1
Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29.752081° Long: -94.377132° Datum: _____
Soil Map Unit Name: Beaumont silty clay, 0 to 1 percent slopes, rarely flooded NWI classification: PF
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 checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: Sampling point is within a rice field that was farmed in 2015. Levees still remain. Vegetation is indicative of recent rice farming with numerous adventive wetland species. Soils have been repeatedly plowed and artificially flooded.		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" 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 along 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 checked="" type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" 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:		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____ (includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Area has been artificially flooded for rice farming		

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

Sampling Point: 984

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = _____
				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Sapling/Shrub Stratum (Plot size: _____) 1. <i>Sesbania drummondii</i> 5 Yes FACW 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover 50% of total cover: 0% 20% of total cover: 0%				
Herb Stratum (Plot size: _____) 1. <i>Oryza sativa</i> 15 Yes OBL 2. <i>Eleocharis parvula</i> 10 No OBL 3. <i>Juncus brachycarpus</i> 30 Yes FACW 4. <i>Eleocharis cellulosa</i> 15 Yes OBL 5. <i>Panicum pensylvanicum</i> 2 No FACW 6. <i>Juncus acuminata</i> 10 No OBL 7. <i>Alopecurus carolinianus</i> 10 No FACW 8. <i>Cyperus virens</i> 15 Yes FACW 9. <i>Briza minor</i> 2 No FAC 10. _____ 11. _____ 12. _____ _____ = Total Cover 50% of total cover: 55% 20% of total cover: 22%				
Woody Vine Stratum (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover 50% of total cover: 0% 20% of total cover: 0%				
Remarks: (If observed, list morphological adaptations below). Vegetation is adventive from recent rice farming.				

SOIL

Sampling Point: 984

[illegible]

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Middleton Estate 241 ac City/County: Chambers County Sampling Date: April 6, 2016
 Applicant/Owner: Billy York State: Texas Sampling Point: 985
 Investigator(s): Lee Sherrod and Scott Flesher Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): oxbow Local relief (concave, convex, none): concave Slope (%): ~1
 Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29.753286° Long: -94.378231° Datum: _____
 Soil Map Unit Name: Beaumont silty clay, 0 to 1 percent slopes, rarely flooded NWI classification: PFO1
 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 checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" 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 checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Oxidized Rhizospheres along 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 checked="" 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 checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-2</u> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>3</u> (includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

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

Sampling Point: 985

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <i>Celtis laevigata</i>	10	No	FACW	Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A) Total Number of Dominant Species Across All Strata: <u>8</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. <i>Taxodium distichum</i>	15	Yes	OBL	
3. <i>Fraxinus pensylvanica</i>	30	Yes	FACW	
4. <i>Salix nigra</i>	5	No	OBL	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
60% = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = _____
50% of total cover: <u>30%</u> 20% of total cover: <u>12%</u>				
Sapling/Shrub Stratum (Plot size: _____) 1. <i>Fraxinus pensylvanica</i> 10 Yes FACW 2. _____ - - 3. _____ - - 4. _____ - - 5. _____ - - 6. _____ - - 7. _____ - - 8. _____ - -				
10% = Total Cover				
50% of total cover: <u>5%</u> 20% of total cover: <u>2%</u>				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
Herb Stratum (Plot size: _____) 1. <i>Alternanthera philoxeroides</i> 20 Yes OBL 2. <i>Eleocharis cellulosa</i> 30 Yes OBL 3. <i>Juncus effusus</i> 15 Yes OBL 4. <i>Iva annua</i> 5 No FAC 5. <i>Rumex crispus</i> 10 No FAC 6. <i>Cyperus virens</i> 10 No FACW 7. <i>Cynodon dactylon</i> 10 No FACU 8. _____ - - 9. _____ - - 10. _____ - - 11. _____ - - 12. _____ - -				
100% = Total Cover				
50% of total cover: <u>50%</u> 20% of total cover: <u>20%</u>				
Woody Vine Stratum (Plot size: _____) 1. _____ - - 2. _____ - - 3. _____ - - 4. _____ - - 5. _____ - -				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
0% = Total Cover				
50% of total cover: <u>0%</u> 20% of total cover: <u>0%</u>				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
Remarks: (If observed, list morphological adaptations below). 				

SOIL

Sampling Point: 985

[illegible]

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Middleton Estate 241 ac City/County: Chambers County Sampling Date: April 6, 2016
Applicant/Owner: Billy York State: Texas Sampling Point: DP-2
Investigator(s): Lee Sherrod and Scott Flesher Section, Township, Range: _____
Landform (hillslope, terrace, etc.): Farm Field Local relief (concave, convex, none): diked - farmed Slope (%): ~1
Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29.759355° Long: -94.383287° Datum: _____
Soil Map Unit Name: Beaumont silty clay, 0 to 1 percent slopes, rarely flooded NWI classification: Pf
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 checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: Sampling point is within a rice field that was farmed in 2015. Levees still remain. Vegetation is indicative of recent rice farming with numerous adventive wetland species. Soils have been repeatedly plowed and artificially flooded.		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" 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 checked="" 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 along 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 checked="" type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" 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:		
Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>0-3</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>6</u>	
(includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Area has been artificially flooded for rice farming		

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

Sampling Point: DP-2

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</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>100%</u> (A/B)
				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = _____
				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Sapling/Shrub Stratum (Plot size: _____) 1. _____ Absolute % Cover: _____ Dominant Species? _____ Indicator Status _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover 50% of total cover: <u>0%</u> 20% of total cover: <u>0%</u>				
Herb Stratum (Plot size: _____) 1. <i>Eleocharis cellulosa</i> 50 Yes OBL 2. <i>Alternanthera philoxeroides</i> 15 No OBL 3. <i>Alopecurus carolinensis</i> 15 No FACW 4. <i>Ludwigia peploides</i> 20 Yes OBL 5. <i>Cyperus viridis</i> 5 No FACW 6. <i>Laersia oryzoides</i> 5 No OBL 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ 12. _____ _____ = Total Cover 50% of total cover: <u>55%</u> 20% of total cover: <u>22%</u>				
Woody Vine Stratum (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover 50% of total cover: <u>0%</u> 20% of total cover: <u>0%</u>				
Remarks: (If observed, list morphological adaptations below). Vegetation is adventive from recent rice farming.				

SOIL

Sampling Point: DP-2

[illegible]

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Middleton Estate 241 ac City/County: Chambers County Sampling Date: April 6, 2016
Applicant/Owner: Billy York State: Texas Sampling Point: DP-3
Investigator(s): Lee Sherrod and Scott Flesher Section, Township, Range: _____
Landform (hillslope, terrace, etc.): Farm Field Local relief (concave, convex, none): diked - farmed Slope (%): ~1
Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29.758919° Long: -94.383209° Datum: _____
Soil Map Unit Name: Beaumont silty clay, 0 to 1 percent slopes, rarely flooded NWI classification: Pf
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 checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: Sampling point is within a rice field that was farmed in 2015. Levees still remain. Vegetation is indicative of recent rice farming with numerous adventive wetland species. Soils have been repeatedly plowed and artificially flooded.		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" 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 checked="" 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 along 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 checked="" type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" 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:		
Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>0-3</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>6</u>	
(includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Area has been artificially flooded for rice farming		

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

Sampling Point: DP-3

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</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>100%</u> (A/B)
				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = _____
				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Sapling/Shrub Stratum (Plot size: _____) 1. <i>Sesbania vesicaria</i> 1 Yes FAC 2. _____ - - - 3. _____ - - - 4. _____ - - - 5. _____ - - - 6. _____ - - - 7. _____ - - - 8. _____ - - - _____ = Total Cover 50% of total cover: <u>0%</u> 20% of total cover: <u>0%</u>				
Herb Stratum (Plot size: _____) 1. <i>Eleocharis quadrangulata</i> 90 Yes OBL 2. <i>Alternanthera philoxeroides</i> 25 No OBL 3. <i>Juncus brachycarpus</i> 2 No FACW 4. <i>Ludwigia peploides</i> 10 No OBL 5. <i>Cyperus viridis</i> 10 No FACW 6. <i>Proserpinaca palustris</i> 2 No OBL 7. <i>Panicum hydropiperoides</i> 2 - OBL 8. _____ - - - 9. _____ - - - 10. _____ - - - 11. _____ - - - 12. _____ - - - _____ = Total Cover 50% of total cover: <u>71%</u> 20% of total cover: <u>28%</u>				
Woody Vine Stratum (Plot size: _____) 1. _____ - - - 2. _____ - - - 3. _____ - - - 4. _____ - - - 5. _____ - - - _____ = Total Cover 50% of total cover: <u>0%</u> 20% of total cover: <u>0%</u>				
Remarks: (If observed, list morphological adaptations below). Vegetation is adventive from recent rice farming.				

SOIL

Sampling Point: DP-3

[illegible]

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Middleton Estate 241 ac City/County: Chambers County Sampling Date: April 6, 2016
 Applicant/Owner: Billy York State: Texas Sampling Point: DP-4
 Investigator(s): Lee Sherrod and Scott Flesher Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Farm Field Local relief (concave, convex, none): diked - farmed Slope (%): ~1
 Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29.758194° Long: -94.384272° Datum: _____
 Soil Map Unit Name: Meaton-Levac Complex, 0 to 1 percent slopes, rarely flooded NWI classification: none
 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 checked="" type="checkbox"/> No <input 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: Sampling point is within a rice field that was farmed in 2015. Levees still remain. Vegetation is indicative of recent rice farming with numerous adventive wetland species. Soils have been repeatedly plowed and artificially flooded.		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<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 along 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:		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Area has been artificially flooded for rice farming		

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

Sampling Point: DP-4

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = _____
				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Tree Stratum (Plot size: _____) 1. _____ Absolute % Cover: _____ Dominant Species? _____ Indicator Status _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover 50% of total cover: <u>0%</u> 20% of total cover: <u>0%</u>				
Sapling/Shrub Stratum (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover 50% of total cover: <u>0%</u> 20% of total cover: <u>0%</u>				
Herb Stratum (Plot size: _____) 1. <i>Eleocharis cellulosa</i> 15 No OBL 2. <i>Alternanthera philoxeroides</i> 30 Yes OBL 3. <i>Juncus brachycarpus</i> 10 No FACW 4. <i>Eleocharis montevidensis</i> 25 Yes FACW 5. <i>Cyperus virens</i> 20 Yes FACW 6. <i>Oryza sativa</i> 20 Yes OBL 7. <i>Taraxacum officinale</i> 10 No FACU 8. _____ 9. _____ 10. _____ 11. _____ 12. _____ _____ = Total Cover 50% of total cover: <u>85%</u> 20% of total cover: <u>26%</u>				
Woody Vine Stratum (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover 50% of total cover: <u>0%</u> 20% of total cover: <u>0%</u>				
Remarks: (If observed, list morphological adaptations below). Vegetation is adventive from recent rice farming.				

SOIL

Sampling Point: DP-4

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 ^a	Loc ^c		
0-8	10YR 4/2	100	-	-	-	-	silty sandy loam	
8-24	10YR 2/1	100	-	-	-	-	clay	
^a Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.							^b Location: PL=Pore Lining, M=Matrix.	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)								
<div style="display: flex; justify-content: space-between;"> <div style="width: 65%;"> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U) <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U) <input type="checkbox"/> Muck Presence (A8) (LRR U) <input type="checkbox"/> 1 cm Muck (A9) (LRR P, T) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A) <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U) </div> <div style="width: 30%; font-size: small;"> <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U) <input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U) <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Marl (F10) (LRR U) <input type="checkbox"/> Depleted Ochric (F11) (MLRA 151) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T) <input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U) <input type="checkbox"/> Delta Ochric (F17) (MLRA 151) <input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A) <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) </div> </div>								
<div style="display: flex; justify-content: space-between;"> <div style="width: 65%;"> Indicators for Problematic Hydric Soils^a: <input type="checkbox"/> 1 cm Muck (A9) (LRR O) <input type="checkbox"/> 2 cm Muck (A10) (LRR S) <input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A,B) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, S, T) <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 153B) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) </div> <div style="width: 30%; font-size: x-small;"> ^aIndicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic. </div> </div>								
Restrictive Layer (If observed):								
Type: _____								
Depth (inches): _____							Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks: Meaton-Levac Complex. Soil has been plowed and artificially flooded for rice farming.								

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Middleton Estate 241 ac City/County: Chambers County Sampling Date: April 6, 2016
Applicant/Owner: Billy York State: Texas Sampling Point: DP-5
Investigator(s): Lee Sherrod and Scott Flesher Section, Township, Range: _____
Landform (hillslope, terrace, etc.): Farm Field Local relief (concave, convex, none): diked - farmed Slope (%): ~1
Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29.758562° Long: -94.385260° Datum: _____
Soil Map Unit Name: Meaton-Levac Complex, 0 to 1 percent slopes, rarely flooded NWI classification: none
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 checked="" type="checkbox"/> No <input 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: Sampling point is within a rice field that was farmed in 2015. Levees still remain. Vegetation is indicative of recent rice farming with numerous adventive wetland species. Soils have been repeatedly plowed and artificially flooded.		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<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 along 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:		
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Area has been artificially flooded for rice farming		

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

Sampling Point: DP-5

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
0% = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = _____
50% of total cover: <u>0%</u> 20% of total cover: <u>0%</u>				
Sapling/Shrub Stratum (Plot size: _____)				
1. <i>Sesbania drummondii</i>	2	Yes	FACW	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
2% = Total Cover				
50% of total cover: <u>1%</u> 20% of total cover: <u>0%</u>				
Herb Stratum (Plot size: _____)				
1. <i>Eleocharis parvula</i>	10	No	OBL	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <i>Alternanthera philoxeroides</i>	10	No	OBL	
3. <i>Juncus brachycarpus</i>	30	Yes	FACW	
4. <i>Alpecurus carolinianus</i>	20	Yes	FACW	
5. <i>Onyza setiva</i>	40	Yes	OBL	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
110% = Total Cover				
50% of total cover: <u>55%</u> 20% of total cover: <u>22%</u>				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
0% = Total Cover				
50% of total cover: <u>0%</u> 20% of total cover: <u>0%</u>				
Remarks: (If observed, list morphological adaptations below).				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Vegetation is adventive from recent rice farming.				

SOIL

Sampling Point: DP-5

[illegible]

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Middleton Estate 241 ac City/County: Chambers County Sampling Date: April 6, 2016
Applicant/Owner: Billy York State: Texas Sampling Point: DP-6
Investigator(s): Lee Sherrod and Scott Flesher Section, Township, Range: _____
Landform (hillslope, terrace, etc.): Farm Field Local relief (concave, convex, none): diked - farmed Slope (%): ~1
Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29.747903° Long: -94.384344° Datum: _____
Soil Map Unit Name: League clay, 0 to 1 percent slopes, rarely flooded NWI classification: Pf
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 checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: Sampling point is within a rice field that was farmed in 2015. Levees still remain. Vegetation is indicative of recent rice farming with numerous adventive wetland species. Soils have been repeatedly plowed and artificially flooded.		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Aquatic Fauna (B13)	<input checked="" 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 along Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input checked="" 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 checked="" type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" 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:		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (includes capillary fringe)	Depth (inches): _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Area has been artificially flooded for rice farming		

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

Sampling Point: DP-6

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
				0% = Total Cover
50% of total cover: 0%				20% of total cover: 0%
Sapling/Shrub Stratum (Plot size: _____)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
				0% = Total Cover
50% of total cover: 0%				20% of total cover: 0%
Herb Stratum (Plot size: _____)				
1. <i>Eleocharis parvula</i>	5	No	OBL	
2. <i>Eleocharis cellulosa</i>	2	No	OBL	
3. <i>Juncus brachycarpus</i>	2	No	FACW	
4. <i>Cyperus virens</i>	10	No	FACW	
5. <i>Leersia oryzoides</i>	70	Yes	OBL	
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
				88% = Total Cover
50% of total cover: 45%				20% of total cover: 18%
Woody Vine Stratum (Plot size: _____)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
				0% = Total Cover
50% of total cover: 0%				20% of total cover: 0%
Remarks: (If observed, list morphological adaptations below).				
Vegetation is adventive from recent rice farming.				

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of: _____ Multiply by: _____

OBL species _____ x 1 = _____

FACW species _____ x 2 = _____

FAC species _____ x 3 = _____

FACU species _____ x 4 = _____

UPL species _____ x 5 = _____

Column Totals: 0 (A) 0 (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

☒ 1 - Rapid Test for Hydrophytic Vegetation

☐ 2 - Dominance Test is >50%

☐ 3 - Prevalence Index is ≤3.0¹

☐ Problematic Hydrophytic Vegetation¹ (Explain)

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

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

SOIL

Sampling Point: DP-6

[illegible]

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Middleton Estate 241 ac City/County: Chambers County Sampling Date: April 6, 2016
Applicant/Owner: Billy York State: Texas Sampling Point: DP-7
Investigator(s): Lee Sherrod and Scott Flesher Section, Township, Range: _____
Landform (hillslope, terrace, etc.): Farm Field Local relief (concave, convex, none): diked - farmed Slope (%): ~1
Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29.749131° Long: -94.384405° Datum: _____
Soil Map Unit Name: League clay, 0 to 1 percent slopes, rarely flooded NWI classification: Pf
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 checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: Sampling point is within a rice field that was farmed in 2015. Levees still remain. Vegetation is indicative of recent rice farming with numerous adventive wetland species. Soils have been repeatedly plowed and artificially flooded.		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Aquatic Fauna (B13)	<input checked="" 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 along Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input checked="" 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 checked="" type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" 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:		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (includes capillary fringe)	Depth (inches): _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Area has been artificially flooded for rice farming		

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

Sampling Point: DP-7

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</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>100%</u> (A/B)
				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = _____
				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Sapling/Shrub Stratum (Plot size: _____) 1. _____ Absolute % Cover: _____ Dominant Species? _____ Indicator Status _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover 50% of total cover: <u>0%</u> 20% of total cover: <u>0%</u>				
Herb Stratum (Plot size: _____) 1. <i>Eleocharis parvula</i> 10 No OBL 2. <i>Eleocharis cellulosa</i> 5 No OBL 3. <i>Juncus brachycarpus</i> 2 No FACW 4. <i>Cyperus virens</i> 20 Yes FACW 5. <i>Leersia oryzoides</i> 50 Yes OBL 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ 12. _____ _____ = Total Cover 50% of total cover: <u>44%</u> 20% of total cover: <u>17%</u>				
Woody Vine Stratum (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover 50% of total cover: <u>0%</u> 20% of total cover: <u>0%</u>				
Remarks: (If observed, list morphological adaptations below). Vegetation is adventive from recent rice farming.				

SOIL

Sampling Point: DP-7

[illegible]

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Middleton Estate 241 ac City/County: Chambers County Sampling Date: April 6, 2016
Applicant/Owner: Billy York State: Texas Sampling Point: DP-8
Investigator(s): Lee Sherrod and Scott Flesher Section, Township, Range: _____
Landform (hillslope, terrace, etc.): Farm Field Local relief (concave, convex, none): diked - farmed Slope (%): ~1
Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29.752408° Long: -94.385071° Datum: _____
Soil Map Unit Name: Meaton-Levac Complex, 0 to 1 percent slopes, rarely flooded NWI classification: none
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 checked="" type="checkbox"/> No <input 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 checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: Sampling point is within a rice field that was farmed in 2015. Levees still remain. Vegetation is indicative of recent rice farming with numerous adventive wetland species. Soils have been repeatedly plowed and artificially flooded.		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input checked="" 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 along 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:		
Surface Water Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-2 in ruts</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Area has been artificially flooded for rice farming		

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

Sampling Point: DP-8

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status																																																					
1. _____	_____	_____	_____																																																					
2. _____	_____	_____	_____																																																					
3. _____	_____	_____	_____																																																					
4. _____	_____	_____	_____																																																					
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				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																																																				
Herb Stratum (Plot size: _____) <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Absolute % Cover</th> <th>Dominant Species?</th> <th>Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. <i>Eleocharis cellulosa</i></td><td>5</td><td>No</td><td>NL</td></tr> <tr><td>2. <i>Oryza sativa</i></td><td>30</td><td>Yes</td><td>OBL</td></tr> <tr><td>3. <i>Juncus brachycarpus</i></td><td>5</td><td>No</td><td>FACW</td></tr> <tr><td>4. <i>Eleocharis parvula</i></td><td>50</td><td>Yes</td><td>OBL</td></tr> <tr><td>5. <i>Cyperus virens</i></td><td>2</td><td>No</td><td>FACW</td></tr> <tr><td>6. <i>Taraxacum officinale</i></td><td>5</td><td>No</td><td>FACU</td></tr> <tr><td>7. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>8. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>9. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>10. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>11. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>12. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> </tbody> </table> <p style="text-align: right;">0% = Total Cover 50% of total cover: 0% 20% of total cover: 0%</p>						Absolute % Cover	Dominant Species?	Indicator Status	1. <i>Eleocharis cellulosa</i>	5	No	NL	2. <i>Oryza sativa</i>	30	Yes	OBL	3. <i>Juncus brachycarpus</i>	5	No	FACW	4. <i>Eleocharis parvula</i>	50	Yes	OBL	5. <i>Cyperus virens</i>	2	No	FACW	6. <i>Taraxacum officinale</i>	5	No	FACU	7. _____	_____	_____	_____	8. _____	_____	_____	_____	9. _____	_____	_____	_____	10. _____	_____	_____	_____	11. _____	_____	_____	_____	12. _____	_____	_____	_____
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2. _____	_____	_____	_____																																																					
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4. _____	_____	_____	_____																																																					
5. _____	_____	_____	_____																																																					
Remarks: (If observed, list morphological adaptations below). Vegetation is adventive from recent rice farming.																																																								

SOIL

Sampling Point: DP-8

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 5/2	90	7.5YR 5/8	10	RM	M	silty loamy clay	
3-8	10YR 4/1	90	7.5YR 5/8	20	RM	M	clay	
8-24	10YR 4/1	90	7.5YR 5/8	10	RM	M	clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U) <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U) <input type="checkbox"/> Muck Presence (A8) (LRR U) <input type="checkbox"/> 1 cm Muck (A9) (LRR P, T) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A) <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U) <input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U) <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Marl (F10) (LRR U) <input type="checkbox"/> Depleted Ochric (F11) (MLRA 151) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T) <input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U) <input type="checkbox"/> Delta Ochric (F17) (MLRA 151) <input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A) <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)	<input type="checkbox"/> 1 cm Muck (A9) (LRR O) <input type="checkbox"/> 2 cm Muck (A10) (LRR S) <input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A,B) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, S, T) <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 153B) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> 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 ☒

Remarks:

Meaton-Levac Complex. Soil has been plowed and artificially flooded for rice farming.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Middleton Estate 241 ac JD Reference Site City/County: Chambers County Sampling Date: May 13, 2016
Applicant/Owner: Billy York State: Texas Sampling Point: 410
Investigator(s): Lee Sherrod Section, Township, Range: _____
Landform (hillslope, terrace, etc.): pasture Local relief (concave, convex, none): flat Slope (%): ~1
Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29.759738° Long: -94.377372° Datum: _____
Soil Map Unit Name: Labelle-Levac Complex, 0 to 1 percent slopes NWI classification: none
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:		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<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 along 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:		
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

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

Sampling Point: 410

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____		-	-	
2. _____		-	-	
3. _____		-	-	
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
7. _____		-	-	
8. _____		-	-	
				0% = Total Cover
50% of total cover: 0%				20% of total cover: 0%
Sapling/Shrub Stratum (Plot size: _____)				
1. _____		-	-	
2. _____		-	-	
3. _____		-	-	
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
7. _____		-	-	
8. _____		-	-	
				0% = Total Cover
50% of total cover: 0%				20% of total cover: 0%
Herb Stratum (Plot size: _____)				
1. <i>Cynodon dactylon</i>	20	Yes	FACU	
2. <i>Stenotaphrum secundatum</i>	50	Yes	FAC	
3. <i>Sporobolus indicus</i>	20	Yes	FACU	
4. <i>Eleocharis parvula</i>	2	No	OBL	
5. <i>Lespedeza angustifolia</i>	2	No	FAC	
6. _____		-	-	
7. _____		-	-	
8. _____		-	-	
9. _____		-	-	
10. _____		-	-	
11. _____		-	-	
12. _____		-	-	
				94% = Total Cover
50% of total cover: 47%				20% of total cover: 19%
Woody Vine Stratum (Plot size: _____)				
1. _____		-	-	
2. _____		-	-	
3. _____		-	-	
4. _____		-	-	
5. _____		-	-	
				0% = Total Cover
50% of total cover: 0%				20% of total cover: 0%
Remarks: (If observed, list morphological adaptations below).				

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33% (A/B)

Prevalence Index worksheet:

Total % Cover of: _____ Multiply by: _____

OBL species _____ x 1 = _____

FACW species _____ x 2 = _____

FAC species _____ x 3 = _____

FACU species _____ x 4 = _____

UPL species _____ x 5 = _____

Column Totals: 0 (A) 0 (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

☐ 1 - Rapid Test for Hydrophytic Vegetation

☐ 2 - Dominance Test is >50%

☐ 3 - Prevalence Index is ≤3.0¹

☐ Problematic Hydrophytic Vegetation¹ (Explain)

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

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☒

SOIL

Sampling Point: 410

[illegible]

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Middleton Estate 241 ac JD Reference Site City/County: Chambers County Sampling Date: May 13, 2016
Applicant/Owner: Billy York State: Texas Sampling Point: 410
Investigator(s): Lee Sherrod Section, Township, Range: _____
Landform (hillslope, terrace, etc.): pasture Local relief (concave, convex, none): flat Slope (%): ~1
Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29.759738° Long: -94.377372° Datum: _____
Soil Map Unit Name: Labelle-Levac Complex, 0 to 1 percent slopes NWI classification: none
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:		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<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 along 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:		
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

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

Sampling Point: 410

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____		-	-	
2. _____		-	-	
3. _____		-	-	
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
7. _____		-	-	
8. _____		-	-	
				0% = Total Cover
50% of total cover: 0%				20% of total cover: 0%
Sapling/Shrub Stratum (Plot size: _____)				
1. _____		-	-	
2. _____		-	-	
3. _____		-	-	
4. _____		-	-	
5. _____		-	-	
6. _____		-	-	
7. _____		-	-	
8. _____		-	-	
				0% = Total Cover
50% of total cover: 0%				20% of total cover: 0%
Herb Stratum (Plot size: _____)				
1. <i>Cynodon dactylon</i>	20	Yes	FACU	
2. <i>Stenotaphrum secundatum</i>	50	Yes	FAC	
3. <i>Sporobolus indicus</i>	20	Yes	FACU	
4. <i>Eleocharis parvula</i>	2	No	OBL	
5. <i>Lespedeza angustifolia</i>	2	No	FAC	
6. _____		-	-	
7. _____		-	-	
8. _____		-	-	
9. _____		-	-	
10. _____		-	-	
11. _____		-	-	
12. _____		-	-	
				94% = Total Cover
50% of total cover: 47%				20% of total cover: 19%
Woody Vine Stratum (Plot size: _____)				
1. _____		-	-	
2. _____		-	-	
3. _____		-	-	
4. _____		-	-	
5. _____		-	-	
				0% = Total Cover
50% of total cover: 0%				20% of total cover: 0%
Remarks: (If observed, list morphological adaptations below).				

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33% (A/B)

Prevalence Index worksheet:

Total % Cover of: _____ Multiply by: _____

OBL species _____ x 1 = _____

FACW species _____ x 2 = _____

FAC species _____ x 3 = _____

FACU species _____ x 4 = _____

UPL species _____ x 5 = _____

Column Totals: 0 (A) 0 (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

☐ 1 - Rapid Test for Hydrophytic Vegetation

☐ 2 - Dominance Test is >50%

☐ 3 - Prevalence Index is ≤3.0¹

☐ Problematic Hydrophytic Vegetation¹ (Explain)

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

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☒

SOIL

Sampling Point: 410

[illegible]

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Middleton Estate 241 ac JD Reference Site City/County: Chambers County Sampling Date: May 13, 2016
Applicant/Owner: Billy York State: Texas Sampling Point: 411
Investigator(s): Lee Sherrod Section, Township, Range: _____
Landform (hillslope, terrace, etc.): pasture Local relief (concave, convex, none): flat Slope (%): ~1
Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29.758839° Long: -94.377311° Datum: _____
Soil Map Unit Name: Labelle-Levac Complex, 0 to 1 percent slopes NWI classification: none
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 checked="" type="checkbox"/> No <input 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:		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<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 along 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 checked="" 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:		
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

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

Sampling Point: 411

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = _____
				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Sapling/Shrub Stratum (Plot size: _____) 1. <i>Baccharis halimifolia</i> 5 Yes FAC 2. _____ - - - 3. _____ - - - 4. _____ - - - 5. _____ - - - 6. _____ - - - 7. _____ - - - 8. _____ - - - _____ = Total Cover 50% of total cover: 0% 20% of total cover: 0%				
Herb Stratum (Plot size: _____) 1. <i>Schizanthium scoparium divergens</i> 20 No NL 2. <i>Stenotaphrum secundatum</i> 40 Yes FAC 3. <i>Sporobolus indicus</i> 10 No FACU 4. <i>Eleocharis parvula</i> 30 Yes OBL 5. <i>Juncus brachycarpus</i> 10 No FACW 6. _____ - - - 7. _____ - - - 8. _____ - - - 9. _____ - - - 10. _____ - - - 11. _____ - - - 12. _____ - - - _____ = Total Cover 50% of total cover: 55% 20% of total cover: 22%				
Woody Vine Stratum (Plot size: _____) 1. <i>Rubus suus</i> 5 Yes FAC 2. _____ - - - 3. _____ - - - 4. _____ - - - 5. _____ - - - _____ = Total Cover 50% of total cover: 3% 20% of total cover: 1%				
Remarks: (If observed, list morphological adaptations below). 				

SOIL

Sampling Point: 411

[illegible]

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Middleton Estate 241 ac JD Reference Site City/County: Chambers County Sampling Date: May 13, 2016
Applicant/Owner: Billy York State: Texas Sampling Point: 412
Investigator(s): Lee Sherrod Section, Township, Range: _____
Landform (hillslope, terrace, etc.): pasture Local relief (concave, convex, none): flat Slope (%): ~1
Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29.757214° Long: -94.377424° Datum: _____
Soil Map Unit Name: Beaumont clay, 0 to 1 percent slopes, rarely flooded NWI classification: Pf
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 checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" 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 along Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input checked="" 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 checked="" 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:		
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

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

Sampling Point: 412

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)
				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = _____
				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Sapling/Shrub Stratum (Plot size: _____) 1. <i>Sesbania drummondii</i> 5 Yes FACW 2. _____ - - - 3. _____ - - - 4. _____ - - - 5. _____ - - - 6. _____ - - - 7. _____ - - - 8. _____ - - - _____ = Total Cover 50% of total cover: 0% 20% of total cover: 0%				
Herb Stratum (Plot size: _____) 1. <i>Schizanthium scoparium divergens</i> 20 Yes NL 2. <i>Eleocharis cellulosa</i> 60 Yes OBL 3. <i>Juncus acuminatus</i> 20 Yes OBL 4. <i>Iva annua</i> 2 No FAC 5. <i>Paspalum dilatatum</i> 3 No FAC 6. _____ - - - 7. _____ - - - 8. _____ - - - 9. _____ - - - 10. _____ - - - 11. _____ - - - 12. _____ - - - _____ = Total Cover 50% of total cover: 53% 20% of total cover: 21%				
Woody Vine Stratum (Plot size: _____) 1. <i>Rubus suus</i> 5 Yes FAC 2. _____ - - - 3. _____ - - - 4. _____ - - - 5. _____ - - - _____ = Total Cover 50% of total cover: 3% 20% of total cover: 1%				
Remarks: (If observed, list morphological adaptations below). 				

SOIL

Sampling Point: 412

[illegible]

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Middleton Estate 241 ac JD Reference Site City/County: Chambers County Sampling Date: May 13, 2016
Applicant/Owner: Billy York State: Texas Sampling Point: 413
Investigator(s): Lee Sherrod Section, Township, Range: _____
Landform (hillslope, terrace, etc.): pasture Local relief (concave, convex, none): flat Slope (%): ~1
Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29.756058° Long: -94.377126° Datum: _____
Soil Map Unit Name: Beaumont clay, 0 to 1 percent slopes, rarely flooded NWI classification: none
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 checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input checked="" 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 checked="" 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 along Living Roots (C3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input checked="" 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 checked="" 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:		
Surface Water Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0-1</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>2</u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

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

Sampling Point: 413

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = _____
				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Sapling/Shrub Stratum (Plot size: _____) 1. <i>Baccharis halimifolia</i> 25 Yes FAC 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover 50% of total cover: <u>0%</u> 20% of total cover: <u>0%</u>				
Herb Stratum (Plot size: _____) 1. <i>Schizanthium scoparium divergens</i> 5 No NL 2. <i>Eleocharis cellulosa</i> 60 Yes OBL 3. <i>Juncus effusus</i> 20 Yes OBL 4. <i>Juncus acuminatus</i> 20 Yes OBL 5. <i>Paspalum dilatatum</i> 5 No FAC 6. <i>Saccharum strictum</i> 15 No OBL 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ 12. _____ _____ = Total Cover 50% of total cover: <u>83%</u> 20% of total cover: <u>25%</u>				
Woody Vine Stratum (Plot size: _____) 1. <i>Rubus suus</i> 5 Yes FAC 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover 50% of total cover: <u>3%</u> 20% of total cover: <u>1%</u>				
Remarks: (If observed, list morphological adaptations below). 				

SOIL

Sampling Point: 413

[illegible]

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Middleton Estate 241 ac JD Reference Site City/County: Chambers County Sampling Date: May 13, 2016
 Applicant/Owner: Billy York State: Texas Sampling Point: 4 14
 Investigator(s): Lee Sherrod Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): pasture Local relief (concave, convex, none): flat Slope (%): ~1
 Subregion (LRR or MLRA): LRR T, MLRA 150A Lat: 29.754606° Long: -94.377181° Datum: _____
 Soil Map Unit Name: Beaumont clay, 0 to 1 percent slopes, rarely flooded NWI classification: none
 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 checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <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 along Living Roots (C3) <input checked="" 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 checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input checked="" type="checkbox"/> Water-Stained Leaves (B9)		Secondary Indicators (minimum of two required) <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 checked="" 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): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		