October 2014

Exhibit DD. Britco Site
Wetland Delineation Report

WETLAND DELINEATION REPORT
PROJECT ID. 213084 SC_04
68-ACRE BRITCO SITE
ASCENSION PARISH, LOUISIANA

Prepared for

Baton Rouge Area Chamber

Baton Rouge Area Chamber
Baton Rouge, Louisiana

Prepared by

GEC
Gulf Engineers & Consultants

Baton Rouge, Louisiana

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PROJECT ID. 213084 SC_04
68-ACRE BRITCO SITE
ASCENSION PARISH, LOUISIANA

GEC Project Number: 0013.2122014.007

Prepared by

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INTRODUCTION

G.E.C., Inc. (GEC) recently conducted a wetland delineation on a 68-acre site for Baton Rouge Area Chamber in Ascension Parish, Louisiana (Figure 1). The project area consists of maintained hay fields and a pond (Figure 2). The east side of the property fronts U.S. Highway 61 and the south side fronts LA Highway 30. The project site is divided into two parcels separated by Kansas City Southern Railroad. The purpose of this delineation was to determine the wetland boundaries within the approximately 68-acre site.

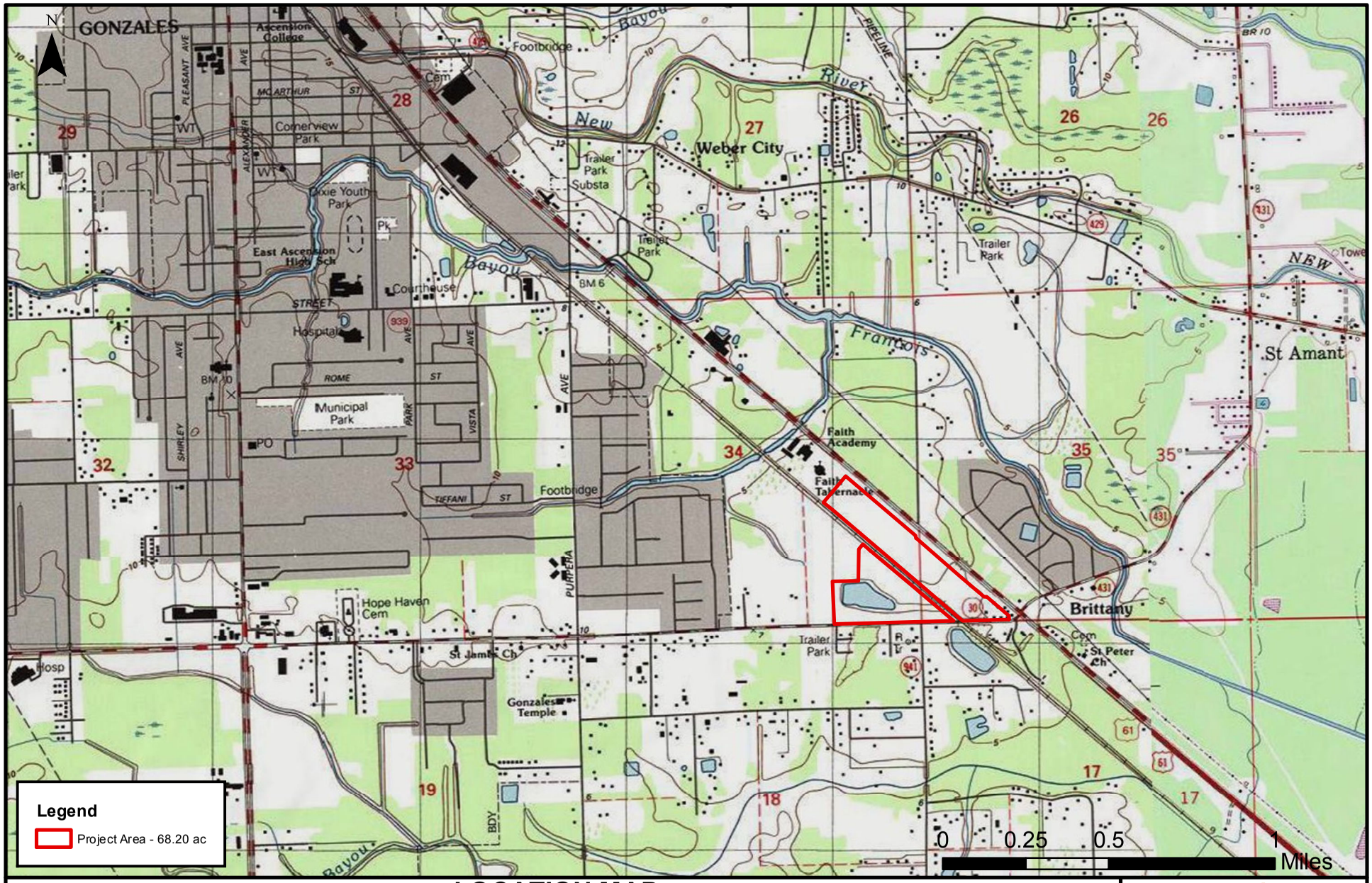
METHODOLOGY

GEC conducted the wetland delineation in accordance with Section D, Subsection 2 of Technical Report Y-87-1, Corps of Engineers Wetlands Delineation Manual as well as the Atlantic and Gulf Coastal Plains Regional Supplement. Aerial photography, Natural Resources Conservation Service (NRCS) Ascension Parish soil survey map, and U.S. Geological Survey (USGS) topographic quadrangle maps were reviewed prior to the initiation of field work to identify the potential extent of wetlands present on the subject property.

Routine Wetland Delineation Data Forms (Appendix A), as approved by Headquarters, U.S. Army Corps of Engineers (USACE) 10/08, were completed for various vegetative communities encountered within the project area. These data forms contain sufficient information regarding the presence or absence of hydric soils, hydrophytic vegetation, and wetland hydrology, to support the demarcation of a wetland boundary. The location of each sample plot along with mapped wetlands and other waters are shown in Figure 3. Figure 4 provides the same information but without the aerial background for a black and white reproducible figure.

Dominant vegetation was recorded on the data forms along with the indicator status as listed in the *National List of Plant Species Occurring in Wetlands (Region 2)* released by USACE in May 2012 (Release no. 12-005). Once dominant vegetation was recorded and evaluated, if more than 50 percent of the dominant vegetation had an indicator status of FAC, FACW, or OBL or the prevalence index was ≤3.0, the hydrophytic vegetation criterion was met.

A soil pit was excavated to a depth of approximately 18 inches at each sample plot. The pit remained open for at least 15 minutes to allow the pit to fill with water, if present. Soils were sampled along the exposed stratum. Information recorded on the data forms included soil colors (hue, value, and chroma as per the 1992 revised edition of the Munsell Color Chart), size, color, abundance, and depth of mottles, as well as soil texture. Soil texture was determined using the "texture by feel" analysis. Figure 5 depicts the soils mapped by the NRCS within the project area.



LOCATION MAP

68-Acre BRITCO Site
PROJECT ID. 213084 SC_04
Intersection of US HWY 61 & LA HWY 30
Ascension Parish, Louisiana

Service Layer Credits: Copyright:© 2013 National Geographic Society, i-cubed

GEC

Figure: 1
Date: September 2014
Scale:1:26,000
Source: ESRI/GEC
Map ID: 00132122014007-3143

VICINITY MAP

68-Acre BRITCO Site
PROJECT ID. 213084 SC_04
Intersection of US HWY 61 & LA HWY 30
Ascension Parish, Louisiana

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

GEC

Figure: 2
Date: September 2014
Scale:1:4,800
Source: ESRI/GEC
Map ID: 00132122014007-3143

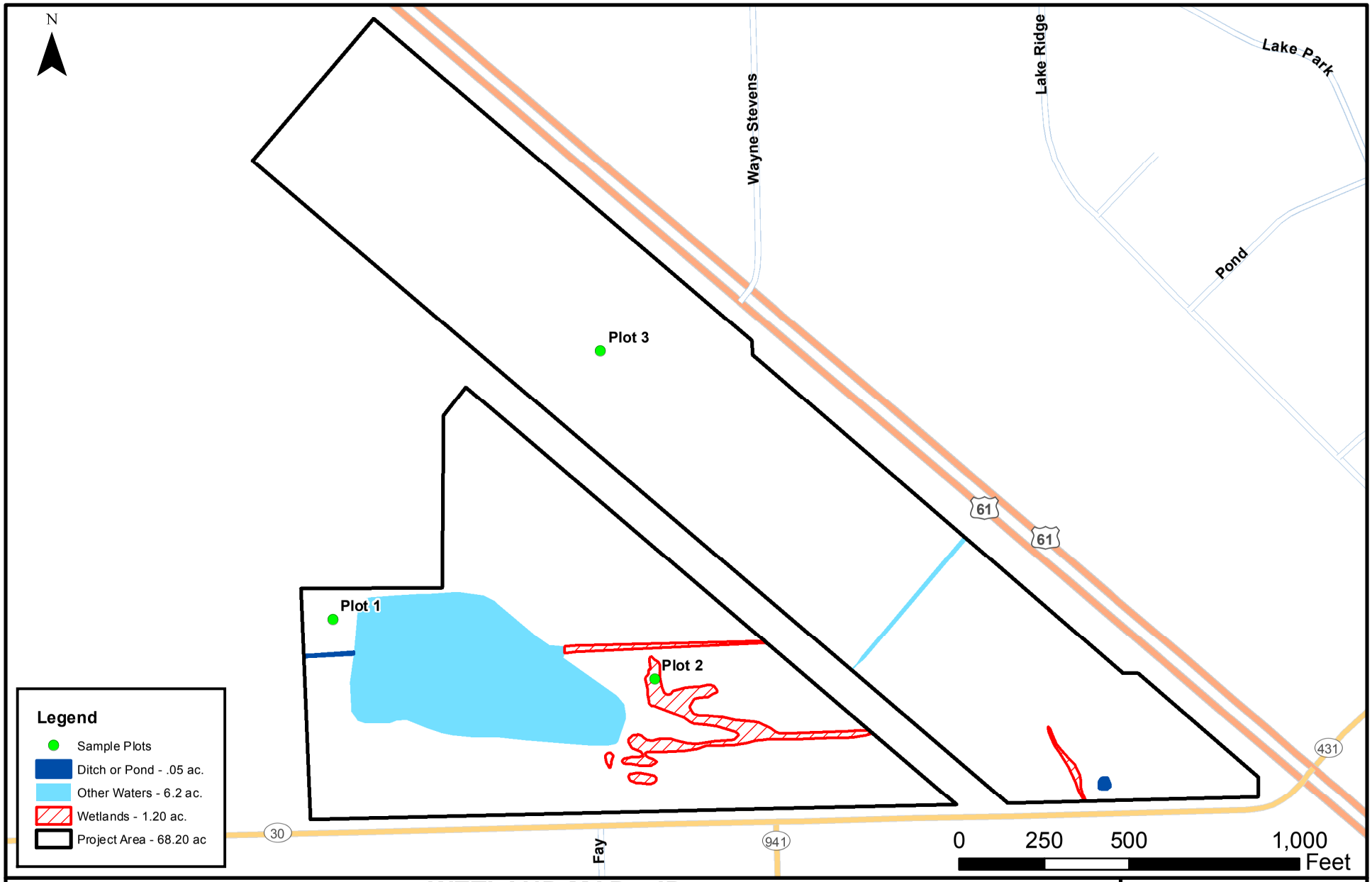
WETLAND MAP

68-Acre BRITCO Site
PROJECT ID. 213084 SC_04
Intersection of US HWY 61 & LA HWY 30
Ascension Parish, Louisiana

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

GEC

Figure: 3
Date: September 2014
Scale:1:4,800
Source: ESRI/GEC
Map ID: 00132122014007-3143

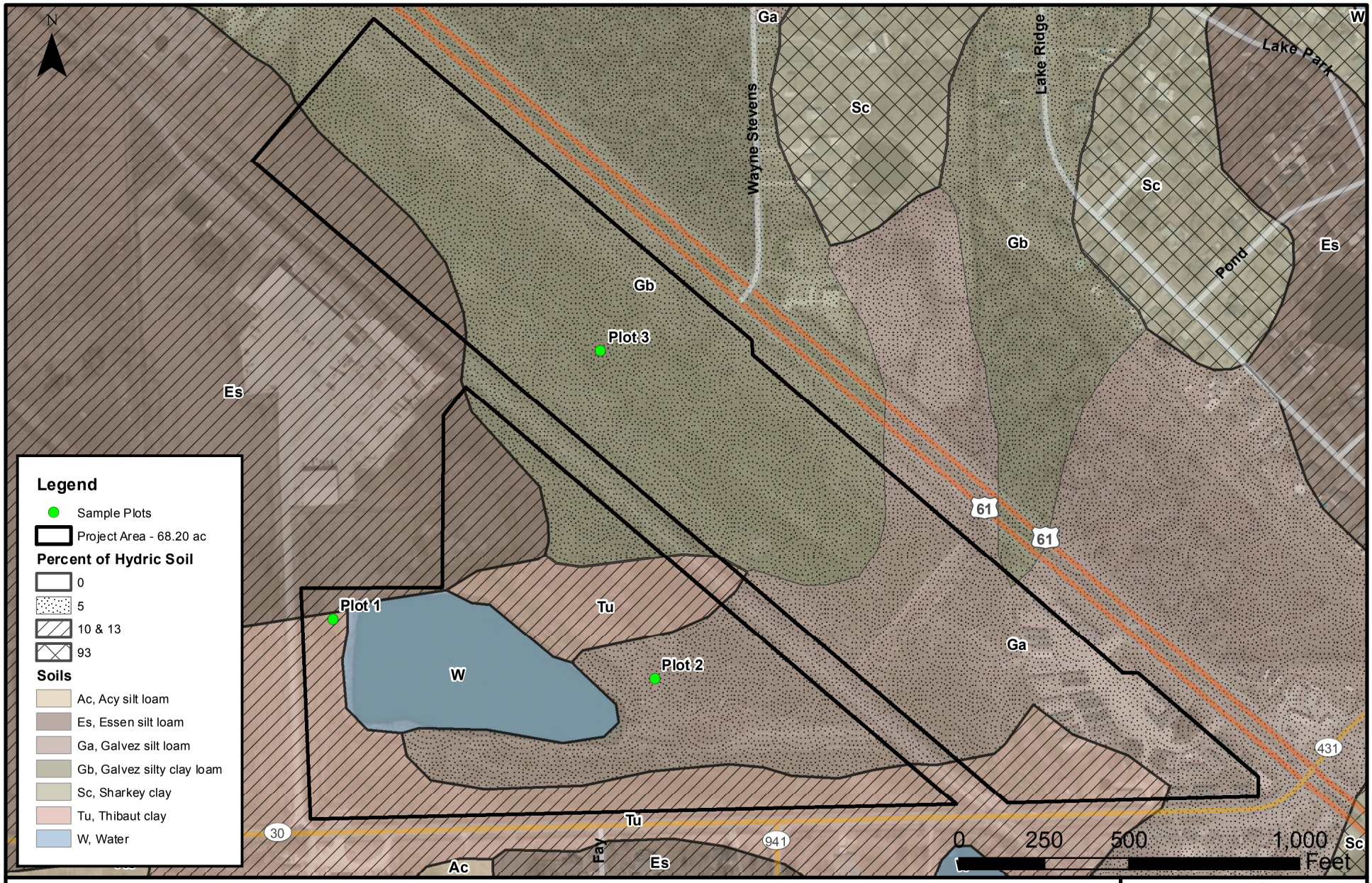


WETLAND MAP - JD

68-Acre BRITCO Site
PROJECT ID. 213084 SC_04
Intersection of US HWY 61 & LA HWY 30
Ascension Parish, Louisiana

GEC

Figure: 4
Date: September 2014
Scale:1:4,800
Source:GEC
Map ID: 00132122014007-3143



SOIL MAP

68-Acre BRITCO Site
PROJECT ID. 213084 SC_04
Intersection of US HWY 61 & LA HWY 30
Ascension Parish, Louisiana

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

GEC

Figure: 5
Date: September 2014
Scale:1:4,800
Source: NRCS/GEC
Map ID: 00132122014007-3143

Wetland hydrology indicators were also recorded at each sample plot as per the USACE requirements. If at least one primary or two secondary hydrology indicators were present, the sample plot was classified as having wetland hydrology.

Photographs were taken at each sample plot where a data form was completed. These photographs show a representative soil profile, as well as overviews of the sample plots (Appendix B).

RESULTS

The following subsections provide descriptions of each of the sites identified during the field survey. Descriptions of vegetation, soil characteristics, and hydrology indicators at each sample plot recorded are provided.

Sample Plot - 1: Sample Plot 1 is located in the parcel west of KCS Railroad within a maintained field in the northwest corner just west of the pond (Figure 3). The dominant herbaceous species observed within this sample plot are bahia grass (*Paspalum notatum*) and Johnson grass (*Sorghum halapense*). Other less dominant species included jungle rice (*Echinochloa colona*), and Virginia button-weed (*Diodia virginiana*). The hydrophytic vegetation criterion is not met within this sample plot.

The soils within this sample plot are mapped as Thibaut clay. This series is not listed on the National or the Louisiana Hydric Soils lists. Field observations of the soil profile did not identify any hydric soil indicators; therefore, these soils are considered non-hydric soils. There were no primary or secondary indicators of wetland hydrology recorded at this sample plot. The wetland hydrology criterion is not met at this plot. It is GEC's opinion that this sample plot is not within a wetland, based on the lack of hydrophytic vegetation, hydric soils, and wetland hydrology (see Data Form Plot - 1).

Sample Plot - 2: Sample Plot 2 is located in the western parcel just east of the pond within a herbaceous depression. Dominant herbaceous species within this depression include blunt spikerush (*Eleocharis obtusa*), Bermuda grass (*Cynodon dactylon*), Virginia button-weed, and jungle rice. There were also less abundant occurrences of alligator weed (*Alternanthera philoxeroides*) within the sample plot. The hydrophytic vegetation criterion is met within this sample plot.

The soils within this sample plot are mapped as Galvez silt loam. This series is listed on the National and the Louisiana Hydric Soils lists. Field observations concluded that the hydric soils criterion is met within this plot based on the presence of hydric soil indicators for a depleted matrix. Primary indicators of hydrology recorded at this sample plot include water-stained leaves (B9) and oxidized rhizospheres on living roots (C3). Secondary indicators included surface soil cracks (B6), crayfish burrows (C8), and a positive FAC-Neutral test (D5). It is GEC's opinion that this sample plot is within a wetland, based on the presence of all three wetland parameters (see Data Form Plot - 2).

Sample Plot - 3: Sample Plot 3 is located in the center portion of the parcel adjacent to US Highway 61. This parcel is an overgrown field dominated by Johnson grass, vasey grass (*Paspalum urvillei*), and Bermuda grass. Other less abundant species observed include bush

aster (*Aster dumosus*), Virginia button-weed, rusty sedge (*Cyperus odoratus*), and saltmarsh loosestrife (*Lythrum lineare*). The hydrophytic vegetation criterion is not met within this sample plot.

The soils within this sample plot are mapped as Galvez silty clay loam. This series is listed on the National and the Louisiana Hydric Soils lists. Field observations of the soil profile did not identify any hydric soil indicators; therefore the hydric soils criterion is not met within this sample plot. There were no primary or secondary hydrology indicators recorded within this sample plot. It is GEC's opinion that this sample plot is not within a wetland, based on the lack of indicators for hydrophytic vegetation, hydric soils and wetland hydrology within the plot (see Data Form Plot - 3).

CONCLUSIONS

Field investigations on the 68 acres were conducted on August 28, 2014. The 68-acre site is divided into two parcels separated by the KCS Railroad. Both parcels are open fields somewhat maintained for hay crops. At the time of the survey, the eastern parcel was overgrown with Johnson grass and vasey grass over the majority of the parcel. The very southeast corner of this parcel is developed and utilized as a mobile home resale business. A narrow herbaceous wetland drain encompassing approximately 0.06 acre was mapped at the south end of this parcel along the back side of the mobile home lot. This drain connects to the roadside ditch along LA Highway 30. Another large ditch encompassing 0.16 acre traverses across the property connecting the roadside ditch along US Highway 61 to the ditch within the KCS Railroad Right-of-way (ROW). A small waste water/retention pond approximately 0.03 acre in size, was mapped along the back side of the mobile home lot but was not characterized as other waters.

The western parcel is maintained and was being cut for hay at the time of the field investigation. This parcel contains a 6.04-acre pond along the western side of the property, approximately 0.96 acre of herbaceous wetland depressions within the southeastern portion of the parcel, and a 0.18-acre wetland drain traversing from the pond to the drainage ditch within the KCS ROW. Field investigators also mapped a ditch, encompassing 0.02 acre along the west side of the pond, which connected to a ditch along a driveway off site and west of the subject property. This ditch was not characterized as an other waters because it was man-made through an upland area and appeared to only provide relief for the driveway ditch to the west during storm events.

Although GEC uses the same criteria and methodology as that of the USACE, due to the degree of subjectivity associated with studies of this type, there may be some degree of variance in the demarcation of the wetland boundary. Consequently, GEC's opinion may not necessarily reflect that of the USACE, nor does it relieve our client of any legal obligations to verify the wetland findings, consult with the USACE, and possibly obtain a Department of the Army permit prior to performing any dredging, filling and/or construction operations in Waters of the United States, including wetlands.

Appendix A

DATA FORMS

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: 68-Acre BRITCO Site City/County: Ascension Sampling Date: Aug 28, 2014

Applicant/Owner: BRAC State: Louisiana Sampling Point: 1

Investigator(s): B. McCoy Section, Township, Range: Sec. 34 & 35, T-9-S, R-3-E

Landform (hillslope, terrace, etc.) Hay Field Local relief (concave, convex, none): none Slope (%): 0

Subregion (LRR or MLRA): LRR O Lat: 30°12'47.2" N Long: 90°53'26.2" W Datum: NAD 83

Soil Map Unit Name: Thibaut clay NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15) **(LRR U)**
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Sphagnum moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) - Use scientific names of plants. Sampling Point 1

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: 30' radius)			
1. Paspalum notatum (Grass,bahia)	60	Y	FACU
2. Sorghum halepense (Grass,johnson)	50	Y	FACU
3. Echinochloa colona (Jungle-rice)	10		FACW
4. Diodia virginiana (Button-weed,virginia)	5		FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	125	= Total Cover	

50 % of total cover: 62.5 20 % of total cover: 25

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: 0 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	X 2 =	30
FAC species	0	X 3 =	0
FACU species	110	X 4 =	440
UPL species	0	X 5 =	0
Column Totals:	125 (A)		470 (B)

Prevalence Index = B/A = 3.76

Hydrophytic Vegetation Indicators:

___ 1 – Rapid Test for Hydrophytic Vegetation

___ 2 – Dominance Test is > 50%

___ 3 – Prevalence Test is ≤ 3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or probl matic.

Definitions of Vegetation Strata:

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

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

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

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

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

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

SOIL

Sampling Point: 1

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 3/2	99	10YR 5/6	1	C	M	Silty Clay	
3-6	10YR 3/1	100			N/A	N/A	Silty Clay	
6-18+	10YR 5/4	97	10YR 5/8	2	C	M	Clay	
			10YR 7/1	1	D	M	Clay	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

[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** _____ **No** **X**

Remarks:

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: 68-Acre BRITCO Site City/County: Ascension Sampling Date: Aug 28, 2014

Applicant/Owner: BRAC State: Louisiana Sampling Point: 2

Investigator(s): B. McCoy Section, Township, Range: Sec. 34 & 35, T-9-S, R-3-E

Landform (hillslope, terrace, etc.) Hay Field Local relief (concave, convex, none): none Slope (%): 0

Subregion (LRR or MLRA): LRR O Lat: 30°12'45.3" N Long: 90°53'15.4" W Datum: NAD 83

Soil Map Unit Name: Galvez silt loam NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X No ____	**Is the Sampled Area within a Wetland?**	Yes X No ____
Hydric Soil Present?	Yes X No ____		
Wetland Hydrology Present?	Yes X No ____		

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15) **(LRR U)**
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- X Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- X Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- ___ Sphagnum moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) - Use scientific names of plants. Sampling Point 2

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: 30' radius)			
1. Eleocharis obtusa (Spikerush,blunt)	60	Y	OBL
2. Cynodon dactylon (Grass,bermuda)	40	Y	FACU
3. Diodia virginiana (Button-weed,virginia)	40	Y	FACW
4. Echinochloa colona (Jungle-rice)	40	Y	FACW
5. Alternanthera philoxeroides (Weed,alligator)	20		OBL
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	200	= Total Cover	

50 % of total cover: 100 20 % of total cover: 40

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: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (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:		(A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ 1 – Rapid Test for Hydrophytic Vegetation

X 2 – Dominance Test is > 50%

___ 3 – Prevalence Test is ≤ 3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or probl matic.

Definitions of Vegetation Strata:

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

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

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

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

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

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

SOIL

Sampling Point: 2

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 4/2	98	10YR 5/6	2	C	M	Clay	
2-8	2.5Y 6/4	94	10YR 7/1	2	D	M	Clay	
			10YR 6/2	2	D	M	Clay	
			10YR 6/8	2	C	M	Clay	
8-17	10YR 6/2	95	10YR 5/8	3	C	M	Clay	
			10YR 6/8	2	C	M	Clay	
17-18+	10YR 2/1	100			N/A	N/A	Clay	

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

Hydric Soil Indicators:

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

Indicators for Problematic Hydric Soils[3]:

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

[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** X **No** _____

Remarks:

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: 68-Acre BRITCO Site City/County: Ascension Sampling Date: Aug 28, 2014

Applicant/Owner: BRAC State: Louisiana Sampling Point: 3

Investigator(s): B. McCoy Section, Township, Range: Sec. 34 & 35, T-9-S, R-3-E

Landform (hillslope, terrace, etc.) Fallow Field Local relief (concave, convex, none): none Slope (%): 0

Subregion (LRR or MLRA): LRR O Lat: 30°12'54.9" N Long: 90°53'17" W Datum: NAD 83

Soil Map Unit Name: Galvez silty clay loam NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15) **(LRR U)**
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Sphagnum moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) - Use scientific names of plants. Sampling Point 3

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: 30' radius)			
1. Sorghum halepense (Grass,johnson)	85	Y	FACU
2. Cynodon dactylon (Grass,bermuda)	30	Y	FACU
3. Paspalum urvillei (Grass,vasey)	30	Y	FAC
4. Aster dumosus (Aster,bush)	15		FAC
5. Diodia virginiana (Button-weed,virginia)	15		FACW
6. Cyperus odoratus (Flatsedge,rusty)	5		FACW
7. Lythrum lineare (Loosestrife,saltmarsh)	5		OBL
8.			
9.			
10.			
11.			
12.			
	185	= Total Cover	
50 % of total cover: 92.5	20 % of total cover: 37		

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: 1 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	20	X 2 =	40
FAC species	45	X 3 =	135
FACU species	115	X 4 =	460
UPL species	0	X 5 =	0
Column Totals:	185 (A)		640 (B)

Prevalence Index = B/A = 3.46

Hydrophytic Vegetation Indicators:

___ 1 – Rapid Test for Hydrophytic Vegetation

___ 2 – Dominance Test is > 50%

___ 3 – Prevalence Test is ≤ 3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or probl matic.

Definitions of Vegetation Strata:

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

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

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

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

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

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

SOIL

Sampling Point: 3

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 2/1	99	7.5YR 4/6	1	C	PL	Silty Clay	
5-18+	10YR 5/4	97	10YR 6/8	2	C	M	Clay	
			10YR 7/1	1	D	M	Clay	

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

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- ___ 1 cm Muck (A9) **(LRR P, T)**
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- ___ Sandy Mucky Mineral (S1) **(LRR O, S)**
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- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR P, S, T, U)**
- ___ Polyvalue Below Surface (S8) **(LRR S, T, U)**
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- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR U)**
- ___ Depleted Ochric (F11) **(MLRA 151)**
- ___ Iron Manganese Masses (F12) **(LRR O, P, T)**
- ___ Umbric Surface (F13) **(LRR P, T, U)**
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- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[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** _____ **No** **X**

Remarks:

Appendix B

PHOTOGRAPHS

Photograph 1. Soil Profile Observed at Plot 1

Photograph 2. Overview of Habitat Observed at Plot 1, Facing Northeast

Photograph 3. Overview of Habitat Observed at Plot 1, Facing South

Photograph 4. Soil Profile Observed at Plot 2

Photograph 5. Overview of Habitat Observed at Plot 2, Facing West

Photograph 6. Overview of Habitat Observed at Plot 2, Facing Southeast

Photograph 7. Soil Profile Observed at Plot 3

Photograph 8. Overview of Habitat Observed at Plot 3, Facing South

Photograph 9. Overview of Habitat Observed at Plot 3, Facing North