WETLAND DELINEATION REPORT Bureau of Engraving and Printing Beltsville Agricultural Research Center Beltsville, Maryland



**Prepared for:** 

Bureau of Engraving and Printing Washington, DC

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## **1.0 INTRODUCTION**

### 1.1 STUDY PURPOSE

The U.S. Army Corps of Engineers (USACE), Baltimore District, Planning Division prepared this report at the request of the United States Department of the Treasury (USDT), Bureau of Engraving and Printing (BEP), to identify and delineate waters of the U.S. (i.e., wetlands and streams) found within the proposed site boundaries.

The BEP proposes to construct and operate a new currency production facility at the site, within the existing Beltsville Agricultural Center (BARC), in Prince George's County, Maryland. The new facility would replace BEP's current Currency Production Facility located in Washington, D.C. with a more modern facility that meets modern production needs. A smaller, strategically located, modern currency production facility would streamline work production and flow processes while increasing operational safety and security. Construction of such a facility would also reduce BEP's operational footprint within the national capital region by approximately 27 percent.

BARC, as a whole, is 6,850 acres of land northeast of Washington D.C. The new currency production facility would be an approximately 1 million square foot facility located on a 104-acre site in the Central Farm area of BARC, along Poultry Road.

The study purpose was achieved through (1) collection and synthesis of existing wetlands and waters of the U.S. information; (2) a site visit to conduct routine wetland delineation as prescribed in the 1987 *Corps of Engineers Wetland Delineation Manual* and the 2010 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual*: Atlantic and Gulf Coastal Plain Region; and (3) preparation of a report of findings, including a Preliminary Jurisdictional Determination Form to support a Jurisdictional Determination by the USACE, Baltimore District, Operations Division, Regulatory Branch.

### 1.2 STUDY AREA

The study area is a 104-acre parcel of land within the exiting BARC, in Beltsville, Maryland. It is bisected by Poultry Road, which runs north south. The property consists of cropland, forest, pasture, wetlands and paved and unpaved roads. In general, surface water appears to drain from the northeast to the southwest border of the Property.

Sixteen abandoned buildings, which were dedicated to poultry research, are located in the center of the site. The western portion of the site is comprised of cropland and pasture. The eastern area of the site is comprised of forest and pasture with two buildings and one small shed. One of the buildings was dedicated to poultry research and one currently serves as BARC's Wildlife Office. The shed is used by the Wildlife Office to store animal traps and related paraphernalia. 188 specimen trees are located throughout the property.

The geology at the proposed BEP site consists of Lower Cretaceous sediments of the Potomac Group, which consists of the Patuxent, the Arundel, and the Patapsco Formations, respectively

decreasing in age. The Patuxent and Patapsco Formations are composed primarily of sand and gravel and comprise the most prevalent water bearing aquifers in Prince George's County. The Arundel is mostly clay and creates artesian conditions in the underlying Patuxent Formation in some locations.

### 2.0 METHODS

### 2.1 DATA COLLECTION AND ANALYSIS

Existing wetland information and GIS data were collected from various sources for preliminary analysis and identification of potential wetland areas within the study area. Sources of data include: U.S. Geological Survey (USGS) topographic quadrangles (USGS, 1977), U.S. Department of Agriculture (USDA) web soil survey (USDA, 2011), and U.S. Fish and Wildlife Service's (USFWS) National Wetland Inventory (NWI) maps (including aerial photography) (USFWS, 2011). The results of the delineation are presented in Figures 4 through 7, Appendix A.

## 2.2 WETLAND DELINEATION

The wetland delineation was performed pursuant to the 1987 *Corps of Engineers Wetland Delineation Manual* and the 2010 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region*, as Federal and state agencies require use of these documents for jurisdictional investigations. The delineation field work was conducted in May and July 2019. All delineations were conducted by a team from USACE, Baltimore District, Planning Division. Data points were completed for each wetland. Wetland boundaries were marked with consecutively numbered pink survey flagging. Photographs of streams and wetlands are included in Appendix C.

### 2.3 GLOBAL POSITIONING SYSTEM (GPS) METHODOLOGY

The field survey was completed using the Trimble GeoXH handheld Global Positioning System (GPS). The objective of the GPS survey was to collect location data for each wetland delineation flag and soil sample point. This survey horizontally references the North American Datum of 1983 (NAD83). This data was then transferred into ArcGIS 11.2 for analysis and mapping.

### 3.0 RESULTS

### 3.1 GENERAL WETLAND FINDINGS

Wetlands are defined by the presence of three parameters: hydrophytic vegetation, hydric soils, and wetland hydrology. Methods for determining if each of the three parameters met are described in the 1987 *Corps of Engineers Wetland Delineation Manual* and the 2010 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region.* 

Preliminary analysis of topographic maps, soils and NWI wetland mapping indicated the presence of wetlands and streams within the study area. Elkton silt loam, listed as hydric on the hydric soils

list (USDA, 2011) is associated with coastal plains. The BEP site is not located within a 100-year floodplain, although sections of the larger BARC area are within the 100-year floodplain.

The USACE team placed numbered flags along the limits of 5 wetlands and 1 stream reach. The flags were located using GPS survey methods. The delineated areas amount to approximately 3.19 acres of wetlands and 1,196 linear feet of stream channel (Tables 3.2 and 3.3, Section 3.2). Stream reach WUS 4 continues downstream out of the study area, into Beaver Creek, flowing into Indian Creek, which is a tributary of the Anacostia River. The map of the streams and wetlands delineated at the proposed BEP site is shown in Figure 3, Appendix A.

#### 3.1.1 VEGETATION

For purposes of wetland identification, many plants are assigned an indicator status by the USFWS, which is useful for determining the probability of their occurrence in wetlands. Wetlands delineated within the study area were dominated by plants normally expected to occur within wetlands. No plant species observed on the site are listed as rare, threatened, or endangered at either a federal or state level.

### 3.1.2 GENERAL SOIL CHARACTERISTICS

The USDA web soil survey (USDA, 2011) identifies seven (7) soil series within the study area, which are shown in Table 3.1 (see Figure 2, Appendix A). The table lists the soil name, the drainage class, and hydric status.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). These soils, under natural conditions, are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

Drainage class refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized-excessively drained, somewhat excessively drained, well drained, moderately well drained, somewhat poorly drained, poorly drained, and very poorly drained.

Soil Name	Map Symbol	Drainage Class	Hydric
Christiana-Downer complex, 5 to 10 percent slopes	CcC	Moderately well drained	No
Christiana-Downer complex, 10 to 15 percent slopes	CcD	Moderately well drained	No
Christiana-Downer complex, 15 to 25 percent slopes	CcE	Moderately well drained	No
Elkton silk loam, 0 to 2 percent slopes	EkA	Poorly Drained	Yes
Russett-Christiana complex, 0 to 2 percent slopes	RcA	Moderately well drained	No
Russett-Christiana complex, 2 to 5 percent slopes	RcB	Moderately well drained	No
Russett-Christiana Urban land complex, 0 to 5 percent slopes	RuB	Moderately well drained	No

Table 3-1. Soils at BEP

### 3.1.3 HYDROLOGY

Evidence of wetland hydrology was observed in the areas identified as wetlands during the site investigation, and included surface water, iron deposits, saturation, and water-stained leaves.

### 3.2 STREAMS

The dominant hydrologic feature on the proposed site is an intermittent stream (WUS-4) near the southeast corner and the abutting emergent wetland. WUS-4 originates east of the proposed site, flows west southwest across the southern portion of the proposed site, crosses under Poultry Road, then turns south and flows parallel to the west side of Poultry Road. After leaving the site, WUS-4 flows into Beaver Dam Creek, which flows to Indian Creek, which is a tributary of the Northeast Branch of the Anacostia River. Ultimately, the Anacostia River empties into the Potomac River, which discharges in Chesapeake Bay. One other intermittent stream (WUS-5) was flagged, but is located south of the proposed sites southern boundary.

Descriptions are provided in Table 3.2. A classification key follows the table.

Stream Reach	Classification	Linear Feet (LF) within the site	Average Width (feet)	Connection to Navigable Waters
WUS-4	R4SB3/4	1,196	2-3	Flows to Beaver Creek, Indian Creek, Anacostia River, Potomac River to Chesapeake Bay
WUS-5*	R4SB3/4	0	2-3	Flows to WUS 4, Beaver Creek, Indian Creek, Anacostia River, Potomac River to Chesapeake Bay
	Total	1,196 LF		

Table 3-2.	Streams	at BEP

**Classification Key** 

R4SB3/4: Riverine intermittent with a streambed of cobble-gravel and sand

\*WUS 5 - Not within the proposed site boundaries, but within the area of potential effect of site development

# 3.3 WETLANDS

Five wetlands were delineated within the proposed site, amounting to approximately 3.19 acres. Wetland data forms are located in Appendix C.

**Wetland 1** is a seep within the mature forest in the northeast corner of the site. It is classified as palustrine forested with broad-leaved deciduous vegetation and a saturated water regime (PFO1B). The dominant species observed were red maple (*Acer rubrum*) FAC, willow oak (*Quercus phellos*) FACW, Japanese stilt grass (*Microstegium vimineum*) FAC, and Chinese privet (*Ligustrum vulgare*) NI. Indicators for wetland hydrology were surface water, saturation, water-stained leaves, and oxidized rhizospheres along living roots. The soil matrix was predominantly 10YR 4/2 with redoximorphic features of 10YR 4/6 which meets the hydric soil criteria for a depleted matrix.

**Wetland 2** is isolated and classified as palustrine emergent with non-persistent vegetation and a seasonally flooded/saturated water regime (PEM2E). Hydrology appears to be effected by a raised gravel road, constructed over 40 years ago, which is ponding water in Wetland 2. Dominant vegetation included reed-canary grass (*Phalaris arundinacea*) FACW, barn-yard grass (*Echinochloa cruz-gali*) FACW, and mild water-pepper (*Persicaria hydropiperoides*) OBL. Indicators for wetland hydrology were surface water, water-stained leaves, and oxidized rhizospheres along living roots. The soil matrix was predominantly 10YR 5/2 with redoximorphic features of 7.5YR 4/6 which meets the hydric soil criteria for a depleted matrix.

**Wetland 3** is located in the south central portion of the site, east of Poultry Road. It is classified as palustrine emergent with non-persistent vegetation and a saturated water regime (PEM2B). Hydrology is groundwater. Dominant vegetation included soft rush (*Juncus effusus*) OBL, and mild water-pepper. Indicators for wetland hydrology were water-stained leaves, and oxidized rhizospheres along living roots. The soil matrix was predominantly 7.5YR 4/3 with redoximorphic features of 7.5YR 2.5/1 which makes it a problematic soil due to its origins from red parent material.

**Wetland 4** is located in the southeastern portion of the site. It is classified as palustrine emergent with non-persistent vegetation and a seasonally flooded/saturated water regime (PEM2E). Wetland 4 considered jurisdictional and regulated by USACE due to direct connections to downstream receiving waters (e.g. Beaver Creek and/or its tributaries). Dominant vegetation included Japanese stilt grass (*Microstegium vimineum*) FAC, soft rush, and reed-canary grass. Indicators for wetland hydrology were surface water, saturation, water-stained leaves, and oxidized rhizospheres along living roots. The soil matrix was predominantly 10YR 4/2 with redoximorphic features of 10YR 4/6 which meets the hydric soil criteria for a depleted matrix.

**Wetland 6** is isolated and classified as palustrine emergent/scrub shrub with persistent vegetation and a seasonally flooded/saturated water regime (PEM/SS2E). It is located in the northern portion of the site, east of Poultry Road. The majority of Wetland 6 is within the existing reforestation easement, so only the southern boundary of the wetland was flagged and located. Dominant vegetation included reed-canary grass, New York ironweed (*Vernonia noveboracensis*) FACW, willow oak, red maple, poison ivy (*Toxicodendron radicans*) FAC, and pin oak (*Quercus palustris*) FACW. Indicators for wetland hydrology were surface water, water-stained leaves, and oxidized rhizospheres along living roots. The soil matrix was predominantly 10YR 5/2 with redoximorphic features of 7.5YR 4/6 which meets the hydric soil criteria for a depleted matrix.

- FAC: Facultative Hydrophyte Sometimes found in wetlands (34-66% frequency)
- FACW: Facultative Wet Hydrophyte Usually found in wetlands (66-99% frequency)
- OBL: Obligate Hydrophyte Almost always found in wetlands (99+% frequency)
- NI: No Indicator USDA has not assigned an indicator status for the species

Descriptions of each wetland are provided in Table 3.3. A classification key follows the table.

Wetland	Cowardin Classification	Acreage within the site	Data Point	Connection to Navigable Waters					
Wetland 1	PFO1B	0.05	DP-1	Forested seep in northeast corner of site (Isolated)					
Wetland 2	PEM2E	0.33	DP-3	In northwest corner of site (Isolated)					
Wetland 3	PEM2B	0.40	DP-5	East central portion of site (Isolated)					
Wetland 4	PEM2E	1.95	DP-3 & 7	Emergent wetland abutting WUS-4. Flows southwest off-site to Beaver Creek					
Wetland 6	PEM/SS2E	0.46		Emergent fringe to scrub/shrub wetland within existing Forest Conservation Easement in north central portion of site					
	Total	3.19 Acres							

Table 3-3. Wetlands at BEP

#### 4.0 CONCLUSIONS

Five wetlands and one stream reach were delineated by USACE, Baltimore District, Planning Division, within the proposed boundary of BEP, on Poultry Road in Greenbelt, Maryland. The delineation was performed in July and August 2019.

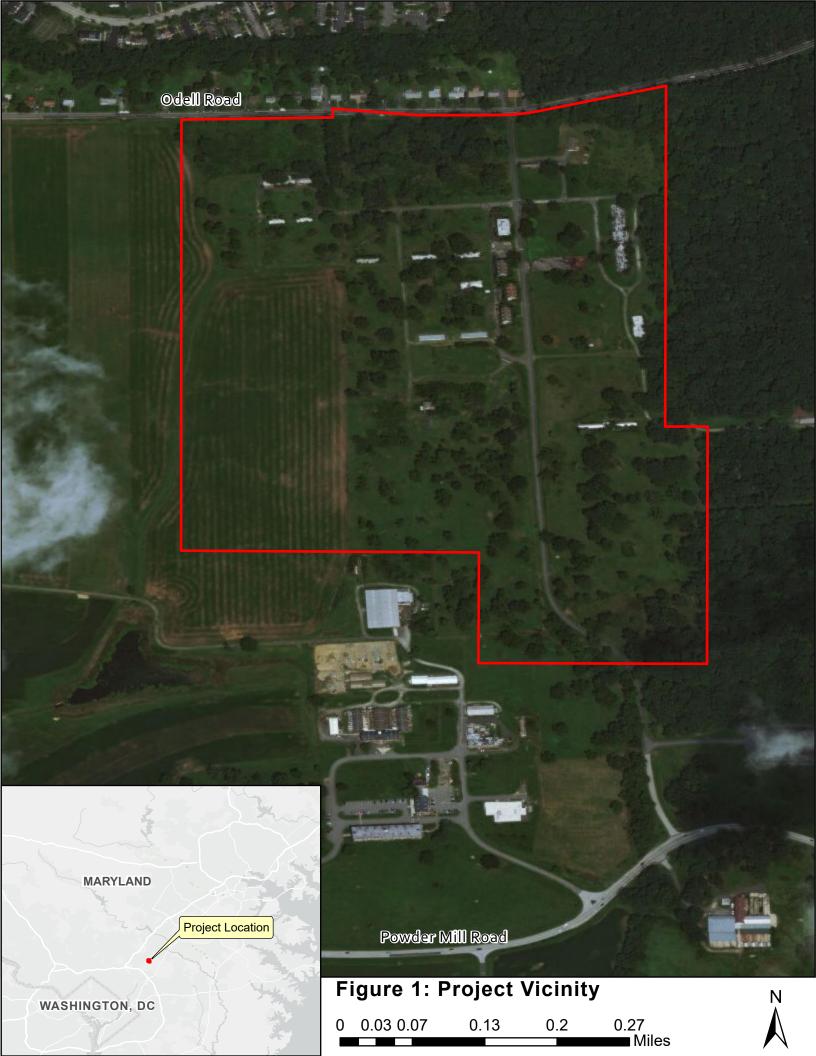
The jurisdiction of the wetlands included in this report have not been verified by U.S Army Corps of Engineers (USACE)-Regulatory Branch or Maryland Department of the Environment (MDE) Any future design or construction that may impact these wetlands or the wetland buffers will require coordination with the USACE and MDE, specifically in regard to potential permitting actions within Section 404, Section 10, and all other potential permitting actions.

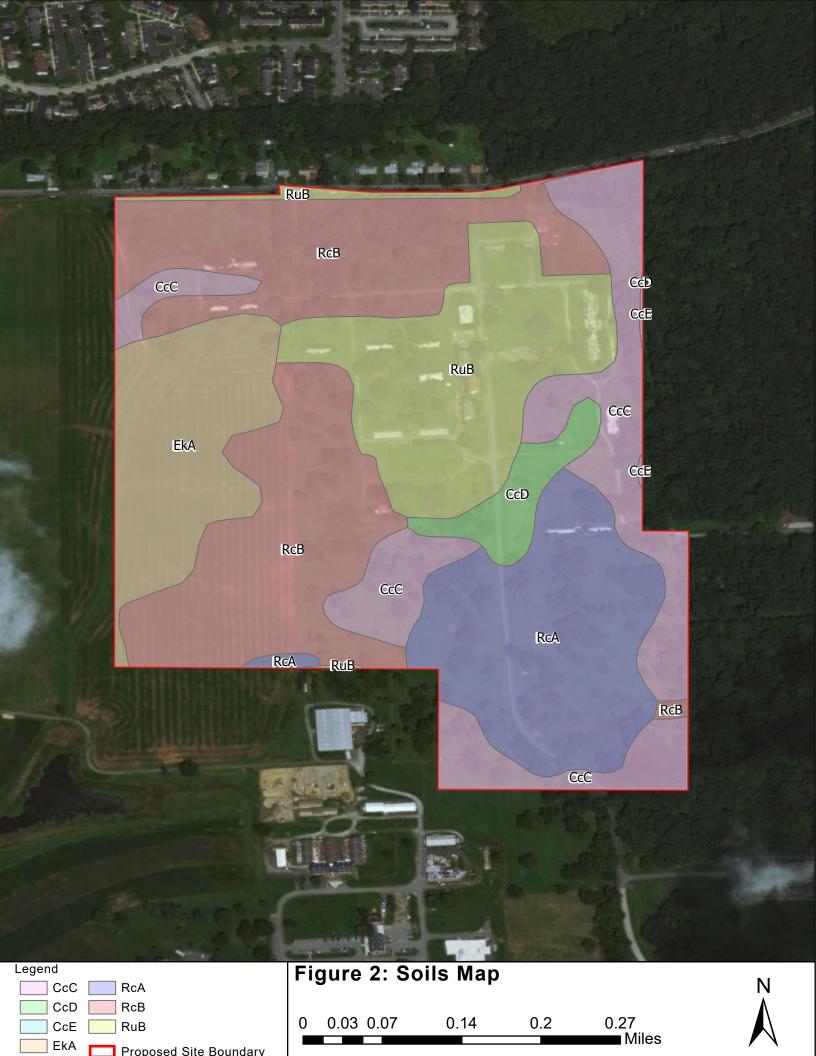
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#### **5.0 REFERENCES**

- Munsell Color. 1992. *Munsell Color Charts 1992 Revised Edition*. Kollmorgen Corporation. Baltimore, MD. Not paginated.
- Reed, Porter B., Jr. 1988. National List of Plant Species that Occur in Wetlands: Northeast (Region 1). U.S. Fish and Wildlife Service, National Ecology Research Center. Biological Report 88(26.1). Fort Collins, CO. 111p.
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- USDA Natural Resources Conservation Service. Updated frequently. National Plants Database, available at <u>http://plants.usda.gov/index.html</u>
- U.S. Department of the Army, Environmental Laboratory (USDOA-EL). 1987. Corps of Engineers Wetlands Delineation Manual. Final Report. Technical Report Y-87-1. U.S. Army Engineer Waterways Experiment Station. St. Petersburg, FL.
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- U.S. Fish and Wildlife Service. 2015. National Wetlands Inventory, Conterminous 48 States. Washington, D.C. Updated continuously.

APPENDIX A Figures







# APPENDIX B Routine Wetland Data Forms

Project/Site:	Bureau of I	Engra	ving and Printing on	BARC	(	City/Cou	inty:	Greenbe	elt/PG	Sa	ampling Date:	7-17-19	
Applicant/Owner:	Bureau	of En	graving and Printing	)		State:	MD		Sampling P	oint:	DP-1		
Investigator(s):	DRC/C	R				Section,	Township	p, Range	:				
Landform (hillslop	e, terrace, e	etc.):	Hillslope Steep	Local	relief (co	oncave, o	convex, n	one):	Concave	SI	ope (%): 5	-8%	
Subregion (LRR o	or MLRA):	LRR	S, MLRA 149A	Lat:	39° 02'	32.40"		Long:	76° 52' 50.30	"	Datum:	NAD83	
Soil Map Unit Nan	ne: <u>Chri</u>	istiana	-Downer Complex 1	10-15% sloj	pes				١	IWI cla	ssification:	PEM	
Are climatic/hydro	logic condit	ions o	n the site typical for	this time of	f year?		Yes	Х	No	(If	no, explain in F	Remarks)	
Are Vegetation	, Soil		, or Hydrology	significa	antly distu	urbed?	Are "N	ormal Ci	cumstances" pre	sent?	Yes X	No	
Are Vegetation	, Soil		, or Hydrology	naturally	y problen	natic?	(If nee	ded, exp	lain any answers	in Ren	narks.)		

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ Yes _ Yes _	X X X	No No No	Is the Sampled Area within a Wetland?	Yes _	x	No		
Remarks: Below and old dirt road, but lower end of the hillside drainage collecting into more discreet depression. Empties into the open area next to reforestation area. Near flag W1-5									

#### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required; ch	Surface Soil Cracks (B6)	
X Surface Water (A1)	Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Marl Deposits (B15) (LRR U)	Drainage Patterns (B10)
X Saturation (A3)	Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1)	Oxidized Rhizospheres along Living Roots (C3)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3)	Recent Iron Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Thin Muck Surface (C7)	Geomorphic Position (D2)
X Iron Deposits (B5)	Other (Explain in Remarks)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral Test (D5)
X Water-Stained Leaves (B9)		Sphagnum Moss (D8) (LRR T, U)

Field Observations:										
Surface Water Present?	Yes	Х	No	Depth (inches):	0					
Water Table Present?	Yes	Х	No	Depth (inches):						
Saturation Present?						Wetland Hydrology				
(includes capillary fringe)	Yes	Х	No	Depth (inches):		Present?	Yes	Х	No	_
Describe Recorded Data (s	stream g	gauge,	monitorir	ng well, aerial photos,	previous inspectio	ns), if available:				
Remarks:										
Interior relatively unvegetat	ed with	stand	ing water							

VEC	<b>ETATION (Five Strata)</b> - Use scientific names	s of plants.			Sampling Point:
Tree	e Stratum (Plot Size: 20-foot radius plot)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1.	Acer rubrum	25	Y	FAC	Number of Dominant Species That
2.					Are OBL, FACW, or FAC: 3 (A)
3.					(*)
4.					Total Number of Dominant Species
5.					Across All Strata: 5 (B)
6.					
0.		25	= Total Cover		Percent of Dominant Species That
	50% of total cover:		20% of total cover:		Are OBL, FACW, or FAC:60_ (A/B)
<u>Sap</u>	ling Stratum (Plot Size: 20-foot radius plot)				Prevalence Index worksheet:
1.			<u> </u>		Total % Cover of: Multiply by:
2.					OBL species x 1 =
3.					FACW species x 2 =
4.					FAC species x 3 =
5.					FACU species x 4 =
6.					UPL species x 5 =
			= Total Cover		Column Totals: (A) (B)
	50% of total cover:		20% of total cover:		
Shri	ub Stratum (Plot Size: <u>20-foot radius plot)</u>		•		Prevalence Index = B/A =
1.	Ligustrum vulgare	10	Yes	UPL	Hydrophytic Vegetation Indicators:
2.		10	Yes	FACW	1 - Rapid Test for Hydrophytic Vegetation
2. 3.	Quercus phellos	5	No	FACW	2 - Dominance Test is >50%
3. 4.	Quercus palustris	10	Yes	FAC	$3 - \text{Prevalence Index is } \le 3.0^{1}$
	llex opaca	10	165	TAC	Problematic Hydrophytic Vegetation <sup>1</sup>
5. c					
6.			Total Causer		
	500/ // / /	35	= Total Cover	7	(Explain)
	50% of total cover:	18	20% of total cover:	7	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be
					present, unless disturbed or problematic.
Herl	<u>o Stratum</u> (Plot Size: <u>10-foot radius plot)</u>				
1.	Parthenociccus quinquefolia	30	Yes	FACU	Definitions of Five Vegetation Strata:
2.	Microstegium vimineum	10	No	FAC	
3.	Nyssa sylvatica	10	No	FAC	<b>Tree -</b> Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
4.	Geum canadensis	5	No	FAC	(7.6 cm) or larger in diameter at breast height (DBH).
5.					Continer Maashanlasta sustaine uses haainee
6.					<b>Sapling -</b> Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
7.					than 3 in (7.6 cm) DBH.
8.					Oberation Managements and a standard strange
9.					<b>Shrub</b> – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
10.				·	
11.					Herb - All herbaceous (non-woody) plants, including
		55	= Total Cover		herbaceous vines, regardless of size, <u>and</u> woody plants, except woody vines, less than approximately
	50% of total cover:	28	20% of total cover:	11	3 ft (1 m) in height.
		20			
14/-					Woody vine - All woody vines, regardless of height.
	ody Vine Stratum (Plot Size: 20-foot radius plot)				
1.					
2.					
3.					Remarks: (if observed, list morphological adaptations below.)
			= Total Cover		
	50% of total cover:		20% of total cover:		Hydrophytic Yes X No
					Vegetation Present?

2-8     1       8-12     1	Color (Moist) 0/YR 2/2 0 YR 4/2 0 YR 5/3 tration, D=D	% 100 80 60	Color (Moist) 10 YR 4/6 5 YR 4/6	% 20 40	C C	С М С	Texture Clay loam Clay loam Clay loam	Dark or Prominent rede	marks ganic layer ox concentrations ox concentrations
0-2         1           2-8         1           8-12         1	0/YR 2/2 0 YR 4/2 0 YR 5/3	100 80 60	10 YR 4/6	20	С	С М С	Clay loam Clay loam	Dark or Prominent rede	ganic layer ox concentrations
2-8         1           8-12         1	0 YR 4/2 0 YR 5/3	80 60				M C	Clay loam	Prominent red	ox concentrations
8-12 1	0 YR 5/3	60					-		
Type: C=Concent			5 YR 4/6	40	C	<u>M</u> C	Clay loam	Prominent red	ox concentrations
	tration, D=D								
Hydric Soil Indica		opiotion,	RM=Reduced	Matrix, N	MS=Masked \$	Sand Grains. <sup>2</sup> Locati	on: PL=Pore Linin	g, M=Matrix	
	ators:						Indicat	ors for Problemation	c Hydric Soils <sup>3</sup> :
Histosol (A1) Histic Epiped Black Histic Hydrogen Su Stratified Lay Organic Bod 5 cm Mucky Muck Preser 1 cm Muck ( Depleted Be Thick Dark S Coast Prairie Sandy Muck Sandy Gleye Sandy Redo Stripped Mat Dark Surface	don (A2) (A3) Ilfide (A4) yers (A5) ies (A6) <b>(LF</b> Mineral (A7 nce (A8) <b>(LR P</b> low Dark St Gurface (A12 e Redox (A1 y Mineral (S ed Matrix (S x (S5) trix (S6)	7) (LRR P RR U) , T) urface (A <sup>.</sup> 2) 6) (MLR 6) (LRR 4)	A 150A)	Thin Da Loamy Deplete Redox I Deplete Redox I Marl (F Deplete Iron-Ma Umbric Delta O Reduce Piedmo	ark Surface (S Mucky Miner: Gleyed Matrix ad Matrix (F3) Dark Surface ad Dark Surface ad Dark Surface (F13) ( <b>LRR U</b> ) ad Ochric (F1 anganese Mar Surface (F13) achric (F17) <b>(I</b> ) ad Vertic (F18) ant Floodplain	(F6) ce (F7) (F8) 1) <b>(MLRA 151)</b> sses (F12) <b>(LRR O, F</b> 3) <b>(LRR P, T, U)</b>	2 cm M Reduce Piedmo Anoma (MLF Red Pa Very SI Other ( Other ( <sup>3</sup> Indica wetlar disturt 3)	uck (A9) <b>(LRR O)</b> uck (A10) <b>(LRR S)</b> ed Vertic (F18) <b>(Outs</b> ont Floodplain Soils ( lous Bright Loamy S <b>RA 153B)</b> rrent Material (TF2) nallow Dark Surface Explain in Remarks) ators of hydrophytic o ad hydrology must be bed or problematic. <b>53D)</b>	F19) <b>(LRR P, S, T)</b> oils (F20) (TF12) vegetation and
Restrictive Layer Typ Depth (inches	e:	ed):			Hyd	ric Soil Present?	Yes	X No	

Project/Site:	Bureau of I	Engraving and	Printing on E	BARC	(	City/Cou	inty:	Greenbe	lt/PG		Sampling D	ate:	7/17/19
Applicant/Owner:	Bureau	of Engraving	and Printing			State:	MD		Sa	ampling Point:	DP-2		
Investigator(s):	DRC/C	R				Section,	Townshi	p, Range	:				
Landform (hillslop	e, terrace, e	etc.): Toe s	lope	Local	relief (co	oncave, c	convex, n	one):	none		Slope (%):	3-	5%
Subregion (LRR c	or MLRA):	LRR S, MLR	A 149A	Lat:	39° 02'	32.86"		Long:	76°	52' 52.60"	Da	tum:	NAD83
Soil Map Unit Nan	ne: <u>Chri</u>	istiana-Downe	er Complex 5-	10% slope	es					NWI	classificatior	1:	UPL
Are climatic/hydro	logic condit	ions on the si	te typical for the	his time of	f year?		Yes	Х	No	. <u> </u>	(If no, expla	in in R	emarks)
Are Vegetation	, Soil	, or Hy	drology	significa	intly distu	urbed?	Are "N	ormal Cir	cumsta	ances" presen	t? Yes	Х	No
Are Vegetation	, Soil	, or Hy	drology	naturally	y problen	natic?	(If nee	eded, exp	lain ang	/ answers in F	Remarks.)		

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	X	No No No	X X	Is the Sampled Area within a Wetland?	Yes	NoX
Remarks: Data point for upland adjacent to W Area relatively flat; driven on infrequ		nowed					

HYDROLOGY		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; ch	eck all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Marl Deposits (B15) (LRR U)	Drainage Patterns (B10)
Saturation (A3)	Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1)	Oxidized Rhizospheres along Living Roots (C3)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3)	Recent Iron Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5)	Other (Explain in Remarks)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral Test (D5)
Water-Stained Leaves (B9)		Sphagnum Moss (D8) (LRR T, U)

Field Observations:						
Surface Water Present?	Yes	No	Depth (inches):			
Water Table Present?	Yes	No	Depth (inches):			
Saturation Present?				Wetland Hydrolog	уу	
(includes capillary fringe)	Yes	No	Depth (inches):	Present?	Yes	No X
Describe Recorded Data (s	siream gau	ge, monitorin	ng well, aerial photos, previous i			
Remarks:						
No signs of wetland hydrol	ogy					

VEGET	TATION (Five Strata) - Use scientific name	s of plants.			Sampling Point: 2	
Tree S	tratum (Plot Size: <u>20-foot radius plot)</u>	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test workshee	t:
1 2 3.					Number of Dominant Species Are OBL, FACW, or FAC:	s That (A)
4 5 6.			· ·		Total Number of Dominant S Across All Strata:	pecies <u>1</u> (B)
o	50% of total cover:		= Total Cover 20% of total cover:		Percent of Dominant Species Are OBL, FACW, or FAC:	s That (A/B)
Sapling	<u>g Stratum</u> (Plot Size: <u>20-foot radius plot)</u>				Prevalence Index workshee	et:
1.					Total % Cover of:	Multiply by:
2.					OBL species	x 1 =
3.					FACW species	x 2 =
4.					FAC species	x 3 =
5.					FACU species	x 4 =
6.					UPL species	x 5 =
_	50% of total cover:		= Total Cover 20% of total cover:		Column Totals:	(A) (B)
Shrub	<u>Stratum</u> (Plot Size: <u>20-foot radius plot)</u>				Prevalence Index = B/A =	
1.	<u>erratam</u> (Field 6120: <u>20 100; 1000 1000 prote</u>				Hydrophytic Vegetation Inc	dicators:
2.					1 - Rapid Test for I	Hydrophytic Vegetation
3.					2 - Dominance Tes	st is >50%
4.					3 - Prevalence Inde	ex is ≤3.0 <sup>1</sup>
5.			· ·		Problematic Hydro	phytic Vegetation <sup>1</sup>
6.						
			= Total Cover			
	50% of total cover:		20% of total cover:		(Explain)	
					<sup>1</sup> Indicators of hydric soil and w present, unless disturbed or pr	
	tratum (Plot Size: <u>10-foot radius plot)</u>				Definitions of Five Vegetati	ion Strata
_	Microstegium vimineum	60	Yes	FAC		
~ _	Panicum virgatum	10	No	FAC	Tree - Woody plants, exclud	
. —	Juncus tenuis	<u> </u>	<u>No</u>	FAC FAC	(7.6 cm) or larger in diameter	
	Lonicera japonica					at breast height (DBH).
5. <u>/</u> 6 7	Potenilla simplex	5	<u>No</u>	FACU	Sapling - Woody plants, exc approximately 20 ft (6 m) or r than 3 in (7.6 cm) DBH.	
8 9			· ·		<b>Shrub</b> – Woody plants, exclu approximately 3 to 20 ft (1 to	
10. 11.			·		Herb - All herbaceous (non-wherbaceous vines, regardless	
		90	= Total Cover		plants, except woody vines, I	
	50% of total cover:	45	20% of total cover:	18	3 ft (1 m) in height.	
<u>Woody</u> 1.	Vine Stratum (Plot Size: 20-foot radius plot)	)			Woody vine - All woody vine	is, regardless of height.
2.						
3.			· ·		Remarks: (if observed, list m adaptations below.)	orphological
			= Total Cover			
	50% of total cover:		20% of total cover:		Hydrophytic Yes Vegetation Present?	X No

Matrix         Redox Features           Depth (Inches)         Color (Moist)         %         Type1         Loc <sup>2</sup> Texture         Remarks           0-1         10YR 2/2         100	Deph         Color         Color           (Inches)         (Moist)         %         Type <sup>1</sup> Loc <sup>2</sup> Texture         Remarks           0-1         10YR 2/2         100	(Inches)						uicator or c	onfirm the abse	ence of indicate	515.)	
(Inches)       (Moist)       %       Type1       Loc <sup>2</sup> Texture       Remarks         0-1       10YR 2/2       100	(Inches)         (Moist)         %         (Moist)         %         Type1         Loc2         Texture         Remarks           0-1         10 YR4/3         95         7.5YR 3/4         5         C         M         Clay loam         Organic           4-12         10 YR4/4         70         10YR 2/1         30         C         M         Clay loam         Distinct redox concentrations           4-12         10 YR 4/4         70         10YR 2/1         30         C         M         Clay loam         Distinct redox concentrations	(Inches)		(		Redox	Features					
O-1       10YR 2/2       100       7.5YR 3/4       5       C       M       Clay loam       Organic         1-4       10 YR4/3       95       7.5YR 3/4       5       C       M       Clay loam       Faint redox concentrations         4-12       10YR 4/4       70       10YR 2/1       30       C       M       Clay loam       Distinct redox concentrations         4-12       10YR 4/4       70       10YR 2/1       30       C       M       Clay loam       Distinct redox concentrations         4-12       10YR 4/4       70       10YR 2/1       30       C       M       Clay loam       Distinct redox concentrations         4       10YR 4/4       70       10YR 2/1       30       C       M       Clay loam       Distinct redox concentrations         4       10YR 4/4       70       10YR 2/1       30       C       M       Clay loam       Distinct redox concentrations         4       10YR 4/4       70       10YR 4/4       10       Piedmont Float       Maintix       Mission 20       10       Muck (A9) (LRR 0)       2       m Muck (A9) (LRR 0)       2       m Muck (A10 (URR 5)       Endword 4/4       Loamy Micky Mineral (F1) (LRR 0)       Piedmont Float       Piedmot Float <td>0-1         10YR 2/2         100         7.5YR 3/4         5         C         M         Clay loam         Organic           4-12         10YR 4/4         70         10YR 2/1         30         C         M         Clay loam         Distinct redox concentrations           4-12         10YR 4/4         70         10YR 2/1         30         C         M         Clay loam         Distinct redox concentrations          </td> <td></td> <td></td> <td></td> <td></td> <td>0/</td> <td><b>-</b> 1</td> <td>. 2</td> <td><b>-</b> ,</td> <td></td> <td>5</td> <td></td>	0-1         10YR 2/2         100         7.5YR 3/4         5         C         M         Clay loam         Organic           4-12         10YR 4/4         70         10YR 2/1         30         C         M         Clay loam         Distinct redox concentrations           4-12         10YR 4/4         70         10YR 2/1         30         C         M         Clay loam         Distinct redox concentrations					0/	<b>-</b> 1	. 2	<b>-</b> ,		5	
1-4       10 YR4/3       95       7.5YR 3/4       5       C       M       Clay loam       Faint redox concentrations         4-12       10YR 4/4       70       10YR 2/1       30       C       M       Clay loam       Distinct redox concentrations	1-4       10 YR4/3       95       7.5YR 3/4       5       C       M       Clay loam       Faint redox concentrations         4-12       10YR 4/4       70       10YR 2/1       30       C       M       Clay loam       Distinct redox concentrations         **       10YR 2/1       30       C       M       Clay loam       Distinct redox concentrations         **       10YR 2/1       30       C       M       Clay loam       Distinct redox concentrations         **       10YR 2/1       30       C       M       Clay loam       Distinct redox concentrations         **       **       **       **       **       **       **       **         **       **       **       **       **       **       **       **         **       **       **       **       **       **       **       **       **         ** <td></td> <td></td> <td></td> <td>(Moist)</td> <td>%</td> <td>Туре</td> <td>LOC<sup>2</sup></td> <td></td> <td></td> <td></td> <td></td>				(Moist)	%	Туре	LOC <sup>2</sup>				
4-12       10YR 4/4       70       10YR 2/1       30       C       M       Clay loam       Distinct redox concentrations         ************************************	4-12       10YR 4/4       70       10YR 2/1       30       C       M       Clay loam       Distinct redox concentrations         **       Mail Clay loam       Distinct redox concentrations       Mail Clay loam       Distinct redox concentrations         **       Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. *Location: PL=Pore Lining, M=Matrix       Indicators:       Indicators:         Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       2 on Muck (A10) (LRR O)         Histosol (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 on Muck (A10) (LRR S)         Black Histis (A3)       Loamy Mucky Mineral (F1) (LRR O)       Peldmont Floodplain Soils (F19) (Darked MLRA 150A, E         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         Organic Bodies (A6) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TF2)         Muck Mineral (A7) (LRR P, T, U)       Depleted Orkin (F11) (MLRA 151)       Other (Explain in Remarks)         Depleted Orkin (F11)       Depleted Orkin (F11)       Other (Explain in Remarks)         Depleted Orkin (F11)       Depleted Orkin (F11)       Other (Explain in Remarks)         Depleted Orkin (F11)       Depleted Orkin (F11)       Other (Explain in Remarks)         Sandy Muck Mineral (S1)       Depleted Orkin (F11)			100						·	Orgar	lic
*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix         Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :         Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histic Epipedon (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A10) (LRR S)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (Outside MLRA 150A, B         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         Stratified Layers (A5)       Depleted Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         S or Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F6)       (MLRA 153B)         S or Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TF2)         Muck Presence (A8) (LRR U)       Redox Depressions (F8)       Very Shallow Dark Surface (TF12)         1 or Muck (A9) (LRR P, T)       Mart (F10) (LRR U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       *Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Reyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)       Piedmont Floodplains Soils (F12) (MLRA 149A), 153C, 153D)	"Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix         Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>2</sup> :         Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       2 cm Muck (A10) (LRR O)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F16) (Outside MLRA 150A, E         Hydrogen Suffide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         Strattified Layers (A6)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F7)       Red Parent Material (TF2)         Muck Presence (A8) (LRR U)       Redox Depressions (F8)       Very Shallow Dark Surface (TF12)         Muck Presence (A8) (LRR U)       Mart (F10) (LRR U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       Iron-Manganese Masses (F12) (LRR O, P, T)       and ref10 (LRR 0, S)         Sandy Mucky Mineral (S1) (LRR O, S)       Delta Ochric (F13) (LRR P, T, U)       aldisturbed or problematic.         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)       Sandy Gleyed Matrix (S4)         Sandy Gleyed Matrix (S6)       Pied	1-4	10 YR4/3	95	7.5YR 3/4	5	С	М	Clay loan	n	Faint redox con	centrations
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>2</sup> :         Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histic Epipedon (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A10) (LRR S)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (Outside MLRA 150A, B         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       (MLRA 153B)         5 cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TF2)         Muck Presence (A8) (LRR P, T)       Marl (F10) (LRR U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       andicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Seduced Vertic (F18) (MLRA 150A, 150B)       Sandy Gleyed Matrix (S4)         Sandy Gleyed Matrix (S6)       Piedmont Floodplains Soils (F20) (MLRA 149A)       Anomalous Bright Loamy Soils (F20) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A)       Back F10 (LRR P, S, T, U) <td>Hydric Soil Indicators:       Indicators for Problematic Hydric Soils<sup>2</sup>:         Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histic Epipedon (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A10) (LRR S)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (Outside MLRA 150A, E         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       (MLRA 153B)         5 cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TF2)         Muck (A9) (LR P, T)       Marl (F10) (LR R U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Cohric (F11) (MLRA 151)       Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Deltor (F13) (LRR A 150A, 150B)       Sandy Redox (S5)         Sandy Mucky Mineral (S1) (LRR O, S)       Delted Cohric (F13) (MLRA 150A, 150B)       Sandy Mucky Mineral (S1) (LRR O, S)         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)       Barlotchir (F17) (MLRA 150A, 150B)         Sand</td> <td>4-12</td> <td>10YR 4/4</td> <td>70</td> <td>10YR 2/1</td> <td>30</td> <td>С</td> <td>M</td> <td>Clay loan</td> <td>n</td> <td>Distinct redox co</td> <td>ncentrations</td>	Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>2</sup> :         Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histic Epipedon (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A10) (LRR S)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (Outside MLRA 150A, E         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       (MLRA 153B)         5 cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TF2)         Muck (A9) (LR P, T)       Marl (F10) (LR R U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Cohric (F11) (MLRA 151)       Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Deltor (F13) (LRR A 150A, 150B)       Sandy Redox (S5)         Sandy Mucky Mineral (S1) (LRR O, S)       Delted Cohric (F13) (MLRA 150A, 150B)       Sandy Mucky Mineral (S1) (LRR O, S)         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)       Barlotchir (F17) (MLRA 150A, 150B)         Sand	4-12	10YR 4/4	70	10YR 2/1	30	С	M	Clay loan	n	Distinct redox co	ncentrations
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>2</sup> :         Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histic Epipedon (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A10) (LRR S)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (Outside MLRA 150A, B         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       (MLRA 153B)         5 cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TF2)         Muck Presence (A8) (LRR P, T)       Marl (F10) (LRR U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       andicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Seduced Vertic (F18) (MLRA 150A, 150B)       Sandy Gleyed Matrix (S4)         Sandy Gleyed Matrix (S6)       Piedmont Floodplains Soils (F20) (MLRA 149A)       Anomalous Bright Loamy Soils (F20) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A)       Back F10 (LRR P, S, T, U) <td>Hydric Soil Indicators:       Indicators for Problematic Hydric Soils<sup>2</sup>:         Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histic Epipedon (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A10) (LRR S)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (Outside MLRA 150A, E         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       (MLRA 153B)         5 cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TF2)         Muck (A9) (LR P, T)       Marl (F10) (LR R U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Cohric (F11) (MLRA 151)       Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Deltor (F13) (LRR A 150A, 150B)       Sandy Redox (S5)         Sandy Mucky Mineral (S1) (LRR O, S)       Delted Cohric (F13) (MLRA 150A, 150B)       Sandy Mucky Mineral (S1) (LRR O, S)         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)       Barlotchir (F17) (MLRA 150A, 150B)         Sand</td> <td></td>	Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>2</sup> :         Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histic Epipedon (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A10) (LRR S)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (Outside MLRA 150A, E         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       (MLRA 153B)         5 cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TF2)         Muck (A9) (LR P, T)       Marl (F10) (LR R U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Cohric (F11) (MLRA 151)       Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Deltor (F13) (LRR A 150A, 150B)       Sandy Redox (S5)         Sandy Mucky Mineral (S1) (LRR O, S)       Delted Cohric (F13) (MLRA 150A, 150B)       Sandy Mucky Mineral (S1) (LRR O, S)         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)       Barlotchir (F17) (MLRA 150A, 150B)         Sand											
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>2</sup> :         Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histic Epipedon (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A10) (LRR S)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (Outside MLRA 150A, B         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       (MLRA 153B)         5 cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TF2)         Muck Presence (A8) (LRR P, T)       Marl (F10) (LRR U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       andicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Seduced Vertic (F18) (MLRA 150A, 150B)       Sandy Gleyed Matrix (S4)         Sandy Gleyed Matrix (S6)       Piedmont Floodplains Soils (F20) (MLRA 149A)       Anomalous Bright Loamy Soils (F20) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A)       Back F10 (LRR P, S, T, U) <td>Hydric Soil Indicators:       Indicators for Problematic Hydric Soils<sup>2</sup>:         Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histic Epipedon (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A10) (LRR S)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (Outside MLRA 150A, E         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       (MLRA 153B)         5 cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TF2)         Muck (A9) (LR P, T)       Marl (F10) (LR R U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Cohric (F11) (MLRA 151)       Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Deltor (F13) (LRR A 150A, 150B)       Sandy Redox (S5)         Sandy Mucky Mineral (S1) (LRR O, S)       Delted Cohric (F13) (MLRA 150A, 150B)       Sandy Mucky Mineral (S1) (LRR O, S)         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)       Barlotchir (F17) (MLRA 150A, 150B)         Sand</td> <td></td>	Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>2</sup> :         Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histic Epipedon (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A10) (LRR S)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (Outside MLRA 150A, E         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       (MLRA 153B)         5 cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TF2)         Muck (A9) (LR P, T)       Marl (F10) (LR R U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Cohric (F11) (MLRA 151)       Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Deltor (F13) (LRR A 150A, 150B)       Sandy Redox (S5)         Sandy Mucky Mineral (S1) (LRR O, S)       Delted Cohric (F13) (MLRA 150A, 150B)       Sandy Mucky Mineral (S1) (LRR O, S)         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)       Barlotchir (F17) (MLRA 150A, 150B)         Sand											
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>2</sup> :         Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histic Epipedon (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A10) (LRR S)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (Outside MLRA 150A, B         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       (MLRA 153B)         5 cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TF2)         Muck Presence (A8) (LRR P, T)       Marl (F10) (LRR U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       andicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Seduced Vertic (F18) (MLRA 150A, 150B)       Sandy Gleyed Matrix (S4)         Sandy Gleyed Matrix (S6)       Piedmont Floodplains Soils (F20) (MLRA 149A)       Anomalous Bright Loamy Soils (F20) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A)       Back F10 (LRR P, S, T, U) <td>Hydric Soil Indicators:       Indicators for Problematic Hydric Soils<sup>2</sup>:         Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histic Epipedon (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A10) (LRR S)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (Outside MLRA 150A, E         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       (MLRA 153B)         5 cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TF2)         Muck (A9) (LR P, T)       Marl (F10) (LR R U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Cohric (F11) (MLRA 151)       Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Deltor (F13) (LRR A 150A, 150B)       Sandy Redox (S5)         Sandy Mucky Mineral (S1) (LRR O, S)       Delted Cohric (F13) (MLRA 150A, 150B)       Sandy Mucky Mineral (S1) (LRR O, S)         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)       Barlotchir (F17) (MLRA 150A, 150B)         Sand</td> <td></td>	Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>2</sup> :         Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histic Epipedon (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A10) (LRR S)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (Outside MLRA 150A, E         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       (MLRA 153B)         5 cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TF2)         Muck (A9) (LR P, T)       Marl (F10) (LR R U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Cohric (F11) (MLRA 151)       Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Deltor (F13) (LRR A 150A, 150B)       Sandy Redox (S5)         Sandy Mucky Mineral (S1) (LRR O, S)       Delted Cohric (F13) (MLRA 150A, 150B)       Sandy Mucky Mineral (S1) (LRR O, S)         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)       Barlotchir (F17) (MLRA 150A, 150B)         Sand											
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>2</sup> :         Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histic Epipedon (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A10) (LRR S)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (Outside MLRA 150A, B         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       (MLRA 153B)         5 cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TF2)         Muck Presence (A8) (LRR P, T)       Marl (F10) (LRR U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       andicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Seduced Vertic (F18) (MLRA 150A, 150B)       Sandy Gleyed Matrix (S4)         Sandy Gleyed Matrix (S6)       Piedmont Floodplains Soils (F20) (MLRA 149A)       Anomalous Bright Loamy Soils (F20) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A)       Back F10 (LRR P, S, T, U) <td>Hydric Soil Indicators:       Indicators for Problematic Hydric Soils<sup>2</sup>:         Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histic Epipedon (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A10) (LRR S)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (Outside MLRA 150A, E         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       (MLRA 153B)         5 cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TF2)         Muck (A9) (LR P, T)       Marl (F10) (LR R U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Cohric (F11) (MLRA 151)       Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Delta Cohric (F17) (MLRA 150A, 150B)       Sandy Redox (S5)       Piedmont Floodplains Soils (F19) (MLRA 149A)         Sandy Redox (S5)       Piedmont Floodplains Soils (F20) (MLRA 149A, 153C, 153D)       Dark Surface (S7) (LRR P, S, T, U)         Restrictive Layer (if observed):       Type:       Hydric Soil Present?       <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<></td>	Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>2</sup> :         Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histic Epipedon (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A10) (LRR S)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (Outside MLRA 150A, E         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       (MLRA 153B)         5 cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TF2)         Muck (A9) (LR P, T)       Marl (F10) (LR R U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Cohric (F11) (MLRA 151)       Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Delta Cohric (F17) (MLRA 150A, 150B)       Sandy Redox (S5)       Piedmont Floodplains Soils (F19) (MLRA 149A)         Sandy Redox (S5)       Piedmont Floodplains Soils (F20) (MLRA 149A, 153C, 153D)       Dark Surface (S7) (LRR P, S, T, U)         Restrictive Layer (if observed):       Type:       Hydric Soil Present? <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>											
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>2</sup> :         Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histic Epipedon (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A10) (LRR S)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (Outside MLRA 150A, B         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       (MLRA 153B)         5 cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TF2)         Muck Presence (A8) (LRR P, T)       Marl (F10) (LRR U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       andicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Seduced Vertic (F18) (MLRA 150A, 150B)       Sandy Gleyed Matrix (S4)         Sandy Gleyed Matrix (S6)       Piedmont Floodplains Soils (F20) (MLRA 149A)       Anomalous Bright Loamy Soils (F20) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A)       Back F10 (LRR P, S, T, U) <td>Hydric Soil Indicators:       Indicators for Problematic Hydric Soils<sup>2</sup>:         Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histic Epipedon (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A10) (LRR S)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (Outside MLRA 150A, E         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       (MLRA 153B)         5 cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TF2)         Muck (A9) (LR P, T)       Marl (F10) (LR R U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Cohric (F11) (MLRA 151)       Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Delta Cohric (F17) (MLRA 150A, 150B)       Sandy Redox (S5)       Piedmont Floodplains Soils (F19) (MLRA 149A)         Sandy Redox (S5)       Piedmont Floodplains Soils (F20) (MLRA 149A, 153C, 153D)       Dark Surface (S7) (LRR P, S, T, U)         Restrictive Layer (if observed):       Type:       Hydric Soil Present?       <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<></td>	Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>2</sup> :         Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histic Epipedon (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A10) (LRR S)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (Outside MLRA 150A, E         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       (MLRA 153B)         5 cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TF2)         Muck (A9) (LR P, T)       Marl (F10) (LR R U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Cohric (F11) (MLRA 151)       Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Delta Cohric (F17) (MLRA 150A, 150B)       Sandy Redox (S5)       Piedmont Floodplains Soils (F19) (MLRA 149A)         Sandy Redox (S5)       Piedmont Floodplains Soils (F20) (MLRA 149A, 153C, 153D)       Dark Surface (S7) (LRR P, S, T, U)         Restrictive Layer (if observed):       Type:       Hydric Soil Present? <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>											
Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histic Epipedon (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A10) (LRR S)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (Outside MLRA 150A, B         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       (MLRA 153B)         5 cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TF2)         Muck Presence (A8) (LRR U)       Redox Depressions (F8)       Very Shallow Dark Surface (TF12)         1 cm Muck (A9) (LRR P, T)       Marl (F10) (LRR U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       Inon-Manganese Masses (F12) (LRR O, P, T)         9 Sandy Mucky Mineral (S1) (LRR O, S)       Delta Ochric (F13) (LRR P, T, U)       alndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)       Anomalous Bright Loamy Soils (F20) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A), 153C, 153D)       Dark Surface (S7) (LRR P, S, T, U)	Histosol (A1)       Polyvalue Below Surface (S8) (LRR S, T, U)       1 cm Muck (A9) (LRR O)         Histic Epipedon (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A10) (LRR S)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (Outside MLRA 150A, E         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       (MLRA 153B)         5 cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TF2)         Muck Presence (A8) (LRR U)       Redox Depressions (F8)       Very Shallow Dark Surface (TF12)         1 cm Muck (A9) (LRR P, T)       Marl (F10) (LR U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Delta Ochric (F17) (MLRA 150A, 150B)       Sandy Redox (S5)       Piedmont Floodplains Soils (F20) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A)       Anomalous Bright Loamy Soils (F20) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A), 153C, 153D)       Dark Surface (S7) (LRR P, S, T, U)         Restrictive Layer (if o	<sup>1</sup> Type: C=Con	ncentration, D=I	Depletion,	, RM=Reduced	Matrix, N	/IS=Masked \$	Sand Grains	. <sup>2</sup> Location: PL=	Pore Lining, M=	Matrix	
Histic Epipedon (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A10) (LRR S)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (Outside MLRA 150A, B         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       (MLRA 153B)         5 cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TF2)         Muck Presence (A8) (LRR U)       Redox Depressions (F8)       Very Shallow Dark Surface (TF12)         1 cm Muck (A9) (LRR P, T)       Marl (F10) (LRR U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       Iron-Manganese Masses (F12) (LRR O, P, T)       ³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Delta Ochric (F17) (MLRA 150A, 150B)       Piedmont Floodplains Soils (F20) (MLRA 149A)         Stripped Matrix (S6)       Piedmont Floodplains Soils (F20) (MLRA 149A), 153C, 153D)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Hydric Soil Present?       Yes       No       X <td>Histic Epipedon (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A10) (LRR S)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (Outside MLRA 150A, E         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       (MLRA 153B)         5 cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TF2)         Muck Presence (A8) (LRR U)       Redox Depressions (F8)       Very Shallow Dark Surface (TF12)         1 cm Muck (A9) (LRR P, T)       Marl (F10) (LRR U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       other (Explain in Remarks)         Coast Prairie Redox (A16) (MLRA 150A)       Umbric Surface (F13) (LRR P, T, U)       alrudicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)       Anomalous Bright Loamy Soils (F20) (MLRA 149A)         Stripped Matrix (S6)       Piedmont Floodplains Soils (F19) (MLRA 149A)       153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Hydric Soil Present?       Yes       No</td> <td>Hydric Soil Ir</td> <td>ndicators:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Indicators f</td> <td>or Problematic H</td> <td>ydric Soils<sup>3</sup>:</td>	Histic Epipedon (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A10) (LRR S)         Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (Outside MLRA 150A, E         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       (MLRA 153B)         5 cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TF2)         Muck Presence (A8) (LRR U)       Redox Depressions (F8)       Very Shallow Dark Surface (TF12)         1 cm Muck (A9) (LRR P, T)       Marl (F10) (LRR U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       other (Explain in Remarks)         Coast Prairie Redox (A16) (MLRA 150A)       Umbric Surface (F13) (LRR P, T, U)       alrudicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)       Anomalous Bright Loamy Soils (F20) (MLRA 149A)         Stripped Matrix (S6)       Piedmont Floodplains Soils (F19) (MLRA 149A)       153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Hydric Soil Present?       Yes       No	Hydric Soil Ir	ndicators:							Indicators f	or Problematic H	ydric Soils <sup>3</sup> :
Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (Outside MLRA 150A, B         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       (MLRA 153B)         5 cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TF2)         Muck Presence (A8) (LRR U)       Redox Depressions (F8)       Very Shallow Dark Surface (TF12)         1 cm Muck (A9) (LRR P, T)       Marl (F10) (LRR U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       Iron-Manganese Masses (F12) (LRR O, P, T)         Goast Prairie Redox (A16) (MLRA 150A)       Umbric Surface (F13) (LRR P, T, U) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Delted Ochric (F13) (MLRA 150A, 150B)       Anomalous Bright Loamy Soils (F20) (MLRA 149A), 153C, 153D)         Stripped Matrix (S6)       Piedmont Floodplains Soils (F20) (MLRA 149A, 153C, 153D)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Hydric Soil Present?       Yes       No       X	Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR 0)       Reduced Vertic (F18) (Outside MLRA 150A, E         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       (MLRA 153B)         5 cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TF2)         Muck Presence (A8) (LRR P, T, U)       Redox Dark Surface (F7)       Red Parent Material (TF2)         1 cm Muck (A9) (LRR P, T, U)       Redox Depressions (F8)       Very Shallow Dark Surface (TF12)         1 cm Muck (A9) (LRR P, T)       Mad (F10) (LRR U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       alndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Delta Ochric (F18) (MLRA 150A, 150B)       alnomalous Bright Loamy Soils (F20) (MLRA 149A)         Stripped Matrix (S6)       Piedmont Floodplains Soils (F19) (MLRA 149A)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Piedmont Floodplains Soils (F20) (MLRA 149A, 153C, 153D)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Depth (	Histosol	(A1)			Polyval	ue Below Sur	face (S8) <b>(L</b>	RR S, T, U)	1 cm Muck (	A9) <b>(LRR O)</b>	
Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR O)       Reduced Vertic (F18) (Outside MLRA 150A, B         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       (MLRA 153B)         5 cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TF2)         Muck Presence (A8) (LRR U)       Redox Depressions (F8)       Very Shallow Dark Surface (TF12)         1 cm Muck (A9) (LRR P, T)       Marl (F10) (LRR U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       Throic Sardy Mucky Mineral (S1) (LRR O, S)         Sandy Mucky Mineral (S1) (LRR O, S)       Delta Ochric (F13) (LRR P, T, U)       Ident of thoodplains Soils (F20) (MLRA 149A)         Sandy Redox (S5)       Piedmont Floodplains Soils (F20) (MLRA 149A)       disturbed or problematic.         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Piedmont Floodplains Soils (F20) (MLRA 149A, 153C, 153D)	Black Histic (A3)       Loamy Mucky Mineral (F1) (LRR 0)       Reduced Vertic (F18) (Outside MLRA 150A, E         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       (MLRA 153B)         5 cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TF2)         Muck Presence (A8) (LRR P, T, U)       Redox Depressions (F8)       Very Shallow Dark Surface (TF12)         1 cm Muck (A9) (LRR P, T)       Mari (F10) (LRR U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       "Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Delta Ochric (F17) (MLRA 150A, 150B)       Sindy Redox (S5)       Piedmont Floodplains Soils (F19) (MLRA 149A)         Stripped Matrix (S6)       Piedmont Floodplains Soils (F20) (MLRA 149A)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Hydric Soil Present?       Yes       No       X         Restrictive Layer (if observed):       Type:       Hydric Soil Present?       Yes       No       X <t< td=""><td>Histic Er</td><td>pipedon (A2)</td><td></td><td></td><td>Thin Da</td><td>irk Surface (S</td><td>69) <b>(LRR S</b>,</td><td>T, U)</td><td>2 cm Muck (</td><td>A10) (LRR S)</td><td></td></t<>	Histic Er	pipedon (A2)			Thin Da	irk Surface (S	69) <b>(LRR S</b> ,	T, U)	2 cm Muck (	A10) (LRR S)	
Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       (MLRA 153B)         5 cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TF2)         Muck Presence (A8) (LRR U)       Redox Depressions (F8)       Very Shallow Dark Surface (TF12)         1 cm Muck (A9) (LRR P, T)       Marl (F10) (LRR U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       other (Explain in Remarks)         Coast Prairie Redox (A16) (MLRA 150A)       Umbric Surface (F13) (LRR P, T, U) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Delta Ochric (F17) (MLRA 150A, 150B)       Sandy Redox (S5)       Piedmont Floodplains Soils (F20) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)       Dark Surface (S7) (LRR P, S, T, U)         Restrictive Layer (if observed):       Type:       Hydric Soil Present?       Yes       No       X	Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19) (LRR P, S, T)         Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       (MLRA 153B)         5 cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TF2)         Muck Presence (A8) (LRR U)       Redox Depressions (F8)       Very Shallow Dark Surface (TF12)         1 cm Muck (A9) (LRR P, T)       Marl (F10) (LRR U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       other (Explain in Remarks)         Coast Prairie Redox (A16) (MLRA 150A)       Umbric Surface (F13) (LRR P, T, U)       alndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Delta Ochric (F17) (MLRA 150A, 150B)       alnomalous Bright Loamy Soils (F20) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)       Dark Surface (S7) (LRR P, S, T, U)         Restrictive Layer (if observed):       Type:       Hydric Soil Present?       Yes       No       X         Depth (inches):       Ememarks:       Hydric Soil Present?       Yes       No       X								· · ·			MLRA 150A, B)
Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       (MLRA 153B)         5 cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TF2)         Muck Presence (A8) (LRR U)       Redox Depressions (F8)       Very Shallow Dark Surface (TF12)         1 cm Muck (A9) (LRR P, T)       Marl (F10) (LRR U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       other (Explain in Remarks)         Depleted Below Dark Surface (A12)       Iron-Manganese Masses (F12) (LRR O, P, T)       andicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Delta Ochric (F17) (MLRA 150A)       Umbric Surface (F13) (LRR P, T, U)       anomalous Bright Loamy Soils (F20) (MLRA 149A)         Sandy Redox (S5)       Piedmont Floodplains Soils (F19) (MLRA 149A)       disturbed or problematic.         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Piedmont Floodplains Soils (F20) (MLRA 149A, 153C, 153D)         Mark Surface (S7) (LRR P, S, T, U)       Hydric Soil Present?       Yes       No       X	Stratified Layers (A5)       Depleted Matrix (F3)       Anomalous Bright Loamy Soils (F20)         Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       (MLRA 153B)         5 cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TF2)         Muck Presence (A8) (LRR U)       Redox Depressions (F8)       Very Shallow Dark Surface (TF12)         1 cm Muck (A9) (LRR P, T, T)       Marl (F10) (LRR U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Delta Ochric (F13) (MLRA 150A, 150B)       Piedmont Floodplains Soils (F20) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Piedmont Floodplains Soils (F20) (MLRA 149A, 153C, 153D)       X         Restrictive Layer (if observed):       Type:       No       X         Depth (inches):       Type:       No       X         Remarks:       Hydric Soil Present?       Yes       No       X		. ,			-	-		,			
Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       (MLRA 153B)         5 cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TF2)         Muck Presence (A8) (LRR U)       Redox Depressions (F8)       Very Shallow Dark Surface (TF12)         1 cm Muck (A9) (LRR P, T)       Marl (F10) (LRR U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       Other (Explain in Remarks)         Thick Dark Surface (A12)       Iron-Manganese Masses (F12) (LRR O, P, T) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Delta Ochric (F17) (MLRA 150A, 150B)       Stripped Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)         Stripped Matrix (S6)       Piedmont Floodplains Soils (F20) (MLRA 149A)       153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Momalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Restrictive Layer (if observed):       Type:       Hydric Soil Present?       Yes       No       X	Organic Bodies (A6) (LRR P, T, U)       Redox Dark Surface (F6)       (MLRA 153B)         5 cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TF2)         Muck Presence (A8) (LRR U)       Redox Depressions (F8)       Very Shallow Dark Surface (TF12)         1 cm Muck (A9) (LRR P, T)       Marl (F10) (LRR U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       Other (Explain in Remarks)         Coast Prairie Redox (A16) (MLRA 150A)       Umbric Surface (F13) (LRR P, T, U)       ³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Delta Ochric (F17) (MLRA 151)       isturbed or problematic.         Sandy Redox (S5)       Piedmont Floodplains Soils (F19) (MLRA 149A)       stripped Matrix (S6)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)       Dark Surface (S7) (LRR P, S, T, U)         Restrictive Layer (if observed):       Type:       Mydric Soil Present?       Yes       No       X         Type:       Remarks:       Kermarks:       Kermarks:       Kermarks       Kermarks       Kermarks	· ·	. ,			-	-					
5 cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TF2)         Muck Presence (A8) (LRR U)       Redox Depressions (F8)       Very Shallow Dark Surface (TF12)         1 cm Muck (A9) (LRR P, T)       Marl (F10) (LRR U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       Other (Explain in Remarks)         Thick Dark Surface (A12)       Iron-Manganese Masses (F12) (LRR O, P, T)       ³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Delta Ochric (F17) (MLRA 151)       isturbed or problematic.         Sandy Redox (S5)       Piedmont Floodplains Soils (F19) (MLRA 149A)       stripped Matrix (S6)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)       Dark Surface (S7) (LRR P, S, T, U)         Mydric Soil Present?	5 cm Mucky Mineral (A7) (LRR P, T, U)       Depleted Dark Surface (F7)       Red Parent Material (TF2)         Muck Presence (A8) (LRR U)       Redox Depressions (F8)       Very Shallow Dark Surface (TF12)         1 cm Muck (A9) (LRR P, T)       Marl (F10) (LRR U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       Thick Dark Surface (A12)         Thick Dark Surface (A12)       Iron-Manganese Masses (F12) (LRR O, P, T)       3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Delta Ochric (F17) (MLRA 150A, 150B)       wetland hydrology must be present, unless disturbed or problematic.         Sandy Redox (S5)       Piedmont Floodplains Soils (F19) (MLRA 149A)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Hydric Soil Present?       Yes       No       X         Remarks:       Remarks:       Kemarks:       Yes       No       X		• • • •	RR P. T.	U)	•	. ,				• •	()
Muck Presence (A8) (LRR U)       Redox Depressions (F8)       Very Shallow Dark Surface (TF12)         1 cm Muck (A9) (LRR P, T)       Marl (F10) (LRR U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       Thick Dark Surface (A12)       Iron-Manganese Masses (F12) (LRR O, P, T)       ³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Delta Ochric (F17) (MLRA 150A, 150B)       Sandy Redox (S5)       Piedmont Floodplains Soils (F19) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)       Dark Surface (S7) (LRR P, S, T, U)         Restrictive Layer (if observed):         Type:       Hydric Soil Present?       Yes       No       X	Muck Presence (A8) (LRR U)       Redox Depressions (F8)       Very Shallow Dark Surface (TF12)         1 cm Muck (A9) (LRR P, T)       Marl (F10) (LRR U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Coast Prairie Redox (A16) (MLRA 150A)       Umbric Surface (F13) (LRR P, T, U)       "Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Delta Ochric (F17) (MLRA 151)       disturbed or problematic.         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 149A)       disturbed or problematic.         Sandy Redox (S5)       Piedmont Floodplains Soils (F19) (MLRA 149A)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Hydric Soil Present?       Yes       No       X         Depth (inches):									-	-	
1 cm Muck (A9) (LRR P, T)       Marl (F10) (LRR U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       Iron-Manganese Masses (F12) (LRR O, P, T)       3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Coast Prairie Redox (A16) (MLRA 150A)       Umbric Surface (F13) (LRR P, T, U)       3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Delta Ochric (F17) (MLRA 150A, 150B)       sturbed or problematic.         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)       sturbed or problematic.         Sandy Redox (S5)       Piedmont Floodplains Soils (F19) (MLRA 149A)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Hydric Soil Present?       Yes       No       X	1 cm Muck (A9) (LRR P, T)       Marl (F10) (LRR U)       Other (Explain in Remarks)         Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)       Iron-Manganese Masses (F12) (LRR O, P, T)       Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Coast Prairie Redox (A16) (MLRA 150A)       Umbric Surface (F13) (LRR P, T, U)       Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Delta Ochric (F17) (MLRA 151)       disturbed or problematic.         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)       disturbed or problematic.         Stripped Matrix (S6)       Piedmont Floodplains Soils (F19) (MLRA 149A)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Hydric Soil Present?       Yes       No       X         Remarks:       Emarks:       No       X       X				, , -,			. ,				12)
Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)         Thick Dark Surface (A12)       Iron-Manganese Masses (F12) (LRR O, P, T)         Coast Prairie Redox (A16) (MLRA 150A)       Umbric Surface (F13) (LRR P, T, U)         Sandy Mucky Mineral (S1) (LRR O, S)       Delta Ochric (F17) (MLRA 151)         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)         Sandy Redox (S5)       Piedmont Floodplains Soils (F19) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Hydric Soil Present?       Yes       No       X	Depleted Below Dark Surface (A11)       Depleted Ochric (F11) (MLRA 151)         Thick Dark Surface (A12)       Iron-Manganese Masses (F12) (LRR O, P, T)         Coast Prairie Redox (A16) (MLRA 150A)       Umbric Surface (F13) (LRR P, T, U)         Sandy Mucky Mineral (S1) (LRR O, S)       Delta Ochric (F17) (MLRA 151)         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)         Sandy Redox (S5)       Piedmont Floodplains Soils (F19) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Hydric Soil Present?       Yes       No       X         Remarks:       Kemarks:       Kemarks:       Kestrictive Layer (if observed):       Yes       No       X							()				)
Thick Dark Surface (A12)       Iron-Manganese Masses (F12) (LRR O, P, T)       3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Delta Ochric (F17) (MLRA 151)       disturbed or problematic.         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)       etamotic Surface (S7)         Sandy Redox (S5)       Piedmont Floodplains Soils (F19) (MLRA 149A)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Hydric Soil Present?       Yes       No       X	Thick Dark Surface (A12)       Iron-Manganese Masses (F12) (LRR O, P, T)       Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Delta Ochric (F17) (MLRA 151)       isturbed or problematic.         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)       Piedmont Floodplains Soils (F19) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)       No         Metric Soil Present?       Yes       No       X         Remarks:       Remarks:       Yes       No       X			-	11)			1) (MLRA 15	51)			
Coast Prairie Redox (A16) (MLRA 150A)       Umbric Surface (F13) (LRR P, T, U)       wetland hydrology must be present, unless disturbed or problematic.         Sandy Mucky Mineral (S1) (LRR O, S)       Delta Ochric (F17) (MLRA 151)       disturbed or problematic.         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)         Sandy Redox (S5)       Piedmont Floodplains Soils (F19) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Hydric Soil Present?       Yes       No       X	Coast Prairie Redox (A16) (MLRA 150A)       Umbric Surface (F13) (LRR P, T, U)       wetland hydrology must be present, unless         Sandy Mucky Mineral (S1) (LRR O, S)       Delta Ochric (F17) (MLRA 151)       disturbed or problematic.         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)         Sandy Redox (S5)       Piedmont Floodplains Soils (F19) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Hydric Soil Present?       Yes         No       X         Remarks:       Remarks:								-	3		
Sandy Mucky Mineral (S1) (LRR O, S)       Delta Ochric (F17) (MLRA 151)       disturbed or problematic.         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)         Sandy Redox (S5)       Piedmont Floodplains Soils (F19) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Hydric Soil Present?       Yes       No       X	Sandy Mucky Mineral (S1) (LRR O, S)       Delta Ochric (F17) (MLRA 151)       disturbed or problematic.         Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)         Sandy Redox (S5)       Piedmont Floodplains Soils (F19) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Hydric Soil Present?       Yes       No       X         Restrictive Layer (if observed):       Type:       No       X       X         Depth (inches):       More and an operation of the second			,	A 150A)		-		-			
Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)         Sandy Redox (S5)       Piedmont Floodplains Soils (F19) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Hydric Soil Present? Yes       No       X	Sandy Gleyed Matrix (S4)       Reduced Vertic (F18) (MLRA 150A, 150B)         Sandy Redox (S5)       Piedmont Floodplains Soils (F19) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Hydric Soil Present?         Yes       No         X       Remarks:								, 0)			esent, unless
Sandy Redox (S5)       Piedmont Floodplains Soils (F19) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Hydric Soil Present? Yes         No       X	Sandy Redox (S5)       Piedmont Floodplains Soils (F19) (MLRA 149A)         Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Hydric Soil Present?         Yes       No         X       Depth (inches):         Remarks:       Kenter Soil Present				<u> </u>			-	0A 150B)		r problematio.	
Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Hydric Soil Present?         Yes       No	Stripped Matrix (S6)       Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)         Dark Surface (S7) (LRR P, S, T, U)       Hydric Soil Present?         Yes       No         X       Depth (inches):         Remarks:       Kenter Soil Present		-	)					-			
Dark Surface (S7) (LRR P, S, T, U)         Restrictive Layer (if observed):         Type:	Dark Surface (S7) (LRR P, S, T, U)         Restrictive Layer (if observed):         Type:         Depth (inches):         Remarks:									A 153C 153D)		
Restrictive Layer (if observed):       Type:       No       X	Restrictive Layer (if observed):     Hydric Soil Present?     Yes     No     X       Depth (inches):			рет		Anoma		Jailly Solis (I	20) (IVIERA 149)	A, 1330, 133D)		
Type: Hydric Soil Present? Yes NoX	Type:         Mo         X           Depth (inches):	Dark Su	mace (57) (LR	х г, э, ι,	0)							
	Depth (inches):	Restrictive La	ayer (if observ	ved):								
Depth (inches):	Remarks:		Туре:				Hyd	ric Soil Pres	sent? Y	′es	No	X
		Depth (in	nches):									
Possible area of historic past tilling/farming because top layer seems like fill (homogenized)												
Possible area of historic past tilling/rarming because top layer seems like fill (nomogenized)												
Possible area of historic past tilling/farming because top layer seems like hil (nomogenized)												
Possible area of historic past tilling/farming because top layer seems like hil (nomogenized)												
Possible area of historic past tilling/rarming because top layer seems like hil (nomogenized)												
Possible area of historic past tilling/rarming because top layer seems like hil (nomogenized)												
Possible area of historic past tilling/rarming because top layer seems like hil (nomogenized)												
Possible area of historic past tilling/raming because top layer seems like hil (nomogenized)												
Possible area of historic past tilling/raming because top layer seems like hil (nomogenized)												
Possible area of historic past tilling/raming because top layer seems like hil (nomogenized)												
Possible area of historic past tilling/raming because top layer seems like hil (nomogenized)												
Possible area of historic past tilling/farming because top layer seems like fill (nomogenized)												

Project/Site:	Bureau of E	Engra	ving and Printing or	n BARC	(	City/Cou	inty:	Greenbe	lt/PG		Sampling Date	):	7/17/19	
Applicant/Owner:	Bureau	of En	graving and Printing	g		State:	MD		Samp	ling Point:	DP-3			
Investigator(s):	DRC/C	R				Section,	Townshi	p, Range	: _					
Landform (hillslop	e, terrace, e	etc.):	Flat pasture	Local	relief (co	ncave, c	convex, n	one):	None		Slope (%):	<19	%	
Subregion (LRR o	or MLRA):	LRR	S, MLRA 149A	Lat:	39° 02'	16.16"		Long:	76° 52'	53.50"	Datur	n:	NAD83	
Soil Map Unit Nan	ne: Rus	sett-C	hristiana Complex,	0-2% slope	S					NWI	classification:		PEM	
Are climatic/hydro	logic condit	ions o	n the site typical for	r this time of	f year?		Yes	Х	No		(If no, explain	in Re	emarks)	
Are Vegetation	, Soil		, or Hydrology	significa	antly distu	urbed?	Are "N	lormal Cir	cumstance	s" presen	t? Yes )	<	No	
Are Vegetation	, Soil		, or Hydrology	naturally	y problem	natic?	(If nee	eded, exp	lain any an	swers in F	Remarks.)			

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ Yes _ Yes _	X X X	No No No	Is the Sampled Area within a Wetland? Yes X No
Remarks: Data point for Wetland 4. Sample point located within the ope portion of the project site.	n, grassy	pasture ea	ast of Poult	near the western edge of the large, forested area that comprises the eastern

#### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; che	ck all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Marl Deposits (B15) (LRR U)	Drainage Patterns (B10)
Saturation (A3)	Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1)	X Oxidized Rhizospheres along Living Roots (C3)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3)	Recent Iron Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5)	Other (Explain in Remarks)	X Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)		X FAC-Neutral Test (D5)
Water-Stained Leaves (B9)		Sphagnum Moss (D8) (LRR T, U)

Field Observations:								
Surface Water Present?	Yes	No	Х	Depth (inches):				
Water Table Present?	Yes	No	Х	Depth (inches):				
Saturation Present?					Wetland Hydrology			
(includes capillary fringe)	Yes	No	Х	Depth (inches):	Present?	Yes	Х	No
Describe Recorded Data (s	stream gau	ge, monite	oring	well, aerial photos, previous	inspections), if available:			
Remarks:								
	surface w	as a verv	dense	e clay that appears to act as	an aquitard.			
		,						

VEGETATION (Five Strata) - Use scientific names	s of plants.			Sampling Point:
Tree Stratum (Plot Size: 20-foot radius plot)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1.		<u> </u>		Number of Dominant Species That
2.		· ·		Are OBL, FACW, or FAC: 3 (A)
3.		· ·		( )
4.		· ·		Total Number of Dominant Species
5.		· ·		Across All Strata: 3 (B)
6.		·		(-)
		= Total Cover		Percent of Dominant Species That
50% of total cover:		20% of total cover:		Are OBL, FACW, or FAC: (A/B)
Sapling Stratum (Plot Size: 20-foot radius plot)				Prevalence Index worksheet:
1.				Total % Cover of: Multiply by:
2.				OBL species x 1 =
3.				FACW species x 2 =
4.				FAC species x 3 =
5.				FACU species x 4 =
6.				UPL species x 5 =
		= Total Cover		Column Totals: (A) (B)
50% of total cover:		20% of total cover:		
				Prevalence Index = B/A =
Shrub Stratum (Plot Size: 20-foot radius plot) 1.				Hydrophytic Vegetation Indicators:
		·		1 - Rapid Test for Hydrophytic Vegetation
2		·		2 - Dominance Test is >50%
4.		·		$3 - Prevalence Index is \leq 3.0^{1}$
		·		Problematic Hydrophytic Vegetation <sup>1</sup>
5 6		·	<u> </u>	
0.		= Total Cover		
E0% of total action		20% of total cover:		(Explain)
50% of total cover:				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be
				present, unless disturbed or problematic.
Herb Stratum (Plot Size: 10-foot radius plot)				
1. Microstegium vimineum	30	Yes	FAC	Definitions of Five Vegetation Strata:
2. Juncus effusus	15	Yes	OBL	<b>Tree</b> - Woody plants, excluding woody vines,
3. Agrostis gigantea	10	No	FACW	approximately 20 ft (6 m) or more in height and 3 in.
4. Persicaria hydropiperoides	5	No	OBL	(7.6 cm) or larger in diameter at breast height (DBH).
5. Scirpus atrovirens	10	No	OBL	Sapling - Woody plants, excluding woody vines,
6. <u>Salix nigra</u>	5	No	FACW	approximately 20 ft (6 m) or more in height and less
7. Carex vulpinoidea	5	No	OBL	than 3 in (7.6 cm) DBH.
8. Phalaris arundinacea	15	Yes	FACW	Shrub – Woody plants, excluding woody vines,
9. <u>Boehmeria cylindrica</u>	10	No	FACW	approximately 3 to 20 ft (1 to 6 m) in height.
10.				Herb - All herbaceous (non-woody) plants, including
11.				herbaceous vines, regardless of size, and woody
	105	= Total Cover		plants, except woody vines, less than approximately
50% of total cover:	53	20% of total cover:	21	3 ft (1 m) in height.
				Woody vine - All woody vines, regardless of height.
Woody Vine Stratum (Plot Size: 20-foot radius plot)				
1.				
2.				
3.				Remarks: (if observed, list morphological
		·		adaptations below.)
		= Total Cover		
50% of total cover:		20% of total cover:		Hydrophytic Yes X No
				Vegetation Present?

Profile Descrip	otion: (Descri Matrix		e depth needec		ument the in Features	dicator or o	onfirm the abso	ence of ind	dicators.)				
Depth	Color		Color										
(Inches)	(Moist)	%	(Moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Texture		Remarks			
0-2	10 YR 4/3	90	10 YR 4/6	10	С	М	Clay loa	m	Many organi				
2-10	10YR 4/2	95	10YR 4/6	5	С	М	Clay loa	m	Distinct redox concentrations				
10-14	10YR 7/6	60	10YR 5/8	40	С	М	Clay loa	Clay loam Distinct redox concentratio					
·								<u> </u>					
<sup>1</sup> Type: C=Conc	entration, D=	Depletion	, RM=Reduced	Matrix, N	//S=Masked \$	Sand Grains	. <sup>2</sup> Location: PL=	Pore Linin	g, M=Matri	x			
Hydric Soil Ind	licators:							Indicat	tors for Pr	oblematic Hydric Soi	s <sup>3</sup> :		
Histosol (/	Δ1)			Polyval	ue Below Sur	face (S8) <b>(I</b>	RRSTII)	1 cm M	luck (A9) <b>(l</b>	RR O)			
	pedon (A2)			-	irk Surface (S				luck (A10)	•			
Black Hist					Mucky Miner					(118) (Outside MLRA 1	50A. B)		
	Sulfide (A4)				Gleyed Matri					ain Soils (F19) (LRR P	-		
	Layers (A5)		X	-	d Matrix (F3)					Loamy Soils (F20)			
	Bodies (A6) (L	RR P, T,	U)		Dark Surface				MLRA 153B)				
5 cm Muc	ky Mineral (A	7) (LRR I	P, T, U)	Deplete	d Dark Surfa	ce (F7)		Red Parent Material (TF2)					
Muck Pres	sence (A8) <b>(L</b>	RR U)		Redox	Depressions	(F8)		Very Shallow Dark Surface (TF12)					
1 cm Muc	k (A9) <b>(LRR F</b>	P, T)		Marl (F	(F10) (LRR U) Other (Explain in Remarks)								
Depleted	Below Dark S	urface (A	.11)	Deplete	ted Ochric (F11) <b>(MLRA 151)</b>								
Thick Dar	k Surface (A1	2)		Iron-Ma	nganese Ma	sses (F12) <b>(</b>	LRR O, P, T)	<sup>3</sup> Indicators of hydrophytic vegetation and					
Coast Pra	airie Redox (A	16) <b>(MLR</b>	A 150A)	Umbric	Surface (F13	8) <b>(LRR P, T</b>	, U)	wetland hydrology must be present, unless					
Sandy Mu	ucky Mineral (	S1) <b>(LRR</b>	O, S)	Delta O	chric (F17) <b>(I</b>	MLRA 151)		disturk	ped or prob	olematic.			
Sandy Gle	eyed Matrix (S	64)		Reduce	d Vertic (F18	6) <b>(MLRA 15</b>	0A, 150B)						
Sandy Re							) <b>(MLRA 149A)</b>						
	Matrix (S6)			Anoma	ous Bright Lo	oamy Soils (	F20) <b>(MLRA 149</b>	A, 153C, 1	53D)				
Dark Surfa	ace (S7) <b>(LRF</b>	R P, S, T,	U)										
Destriction I as		11											
Restrictive Lay	-	ed):			المعال	ria Cail Dra	aant?	100	v	No			
	Гуре:				нуа	ric Soil Pre	sent?	res	X	No			
Depth (incl	nes):												
Remarks:													
	cretions within	4-12 inc	hes of surface (	color 10	YR 2/1). Lowe	er layer (10-	14 inches) has b	right red de	epletions (*	10R 4/8, 20%).			
						•		•					

Project/Site:	Bureau of Engraving and Printing on BARC						City/County:		Greenbelt/PG			e:	8/07/19
Applicant/Owner:	Bureau	of Engravin	g and Printing			State:	MD		Samplir	ng Point:	DP-4		
Investigator(s):	DRC/M	IW				Section,	Townsh	ip, Range	:				
Landform (hillslop	e, terrace, e	etc.): Flat	pasture	Local	relief (co	ncave, c	convex, r	none):	concave		Slope (%):	1%	5
Subregion (LRR o	or MLRA):	LRR S, ML	RA 149A	Lat:	39° 02'	28.37"		Long:	76° 53' 1	1.80"	Datu	m:	NAD 83
Soil Map Unit Nan	ne: <u>Elkt</u>	on silt loam,	0-2% slopes							NWI	classification:		PEM
Are climatic/hydro	logic condit	ions on the s	site typical for	this time o	f year?		Yes	X	No		(If no, explain	in Re	emarks)
Are Vegetation	, Soil	, or H	ydrology	significa	antly distu	urbed?	Are "N	Normal Cir	cumstances	" present	t? Yes	X	No
Are Vegetation	, Soil	, or H	ydrology	naturall	y problem	natic?	(If ne	eded, exp	ain any ansv	wers in R	Remarks.)		

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ Yes _ Yes _	X X X	No No No	 the Sampled Area thin a Wetland?	Yes _	<u>x</u>	No
Remarks: Wetland 2 Data point – isolated dep	ressional	wetland					

#### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)			
Primary Indicators (minimum of one is required; ch	eck all that apply)	Surface Soil Cracks (B6)		
X Surface Water (A1)	Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)		
High Water Table (A2)	Marl Deposits (B15) (LRR U)	Drainage Patterns (B10)		
Saturation (A3)	Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)		
Water Marks (B1)	X Oxidized Rhizospheres along Living Roots (C3)	Dry-Season Water Table (C2)		
Sediment Deposits (B2)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)		
Drift Deposits (B3)	Recent Iron Reduction in Tilled Soils (C6)	X Saturation Visible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)	Thin Muck Surface (C7)	Geomorphic Position (D2)		
Iron Deposits (B5)	Other (Explain in Remarks)	X Shallow Aquitard (D3)		
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral Test (D5)		
Water-Stained Leaves (B9)		Sphagnum Moss (D8) (LRR T, U)		

Field Observations:											
Surface Water Present?	Yes	Х	No		Depth (inches):	3"					
Water Table Present?	Yes		No	Х	Depth (inches):		-				
Saturation Present?			-		_		Wetland Hydrology				
(includes capillary fringe)	Yes	Х	No		Depth (inches):	0"	Present?	Yes	Х	No	
Describe Recorded Data (s	stream (	gauge,	monit	oring	well, aerial photos,	previous inspec	tions), if available:				
Descelar											
Remarks:											
Inundation appears to have been created by raised gravel road which prevents drainage											
inunuation appears to have	been	Jeale	лрута	iseu g	lavel load which p	revents urainage	5				

VEGETATION (F	<b>ive Strata)</b> - Use scientific names	of plants.			Sampling Point:	
Tree Stratum (Plo	t Size: 20-foot radius plot)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. 2. 3.					Number of Dominant Species That Are OBL, FACW, or FAC:	(A)
4 5 6					Total Number of Dominant Species Across All Strata:	(B)
	50% of total cover:		= Total Cover 20% of total cover:		Percent of Dominant Species That Are OBL, FACW, or FAC:	(A/B)
Sapling Stratum (	Plot Size: 20-foot radius plot)				Prevalence Index worksheet:	
1.					Total % Cover of:	Multiply by:
2.					OBL species x 1 =	=
3.					FACW species x 2 =	=
4.					FAC species x 3 =	=
5.					FACU species x 4 =	=
6.					UPL species x 5 =	=
	50% of total cover:		= Total Cover 20% of total cover:		Column Totals: (A)	(B)
Shrub Stratum (P	ot Size: <u>20-foot radius plot)</u>				Prevalence Index = B/A =	
1.	0120. <u>20100(10003 plot)</u>				Hydrophytic Vegetation Indicators:	
2.					1 - Rapid Test for Hydrophy	
3.			<u> </u>		2 - Dominance Test is >50%	-
4					3 - Prevalence Index is ≤3.0	
5.					Problematic Hydrophytic Ve	
6			<u> </u>			gotation
0			= Total Cover			
	50% of total cover:		20% of total cover:		(Explain)	
					<sup>1</sup> Indicators of hydric soil and wetland hydric soil and wetland hydric present, unless disturbed or problematic	
Herb Stratum (Plo	ot Size: <u>10-foot radius plot)</u>					
1. Phalaris art	undinacea	60	Y	FACW	Definitions of Five Vegetation Strat	a:
2. Echinochlo	a cruz-gali	10	<u>N</u>	FACW	Tree - Woody plants, excluding wood	dy vines,
<ol> <li><u>Persicaria I</u></li> <li>4.</li> </ol>	nydropiperoides	25	Y	OBL	approximately 20 ft (6 m) or more in h (7.6 cm) or larger in diameter at breas	height and 3 in.
6					<b>Sapling -</b> Woody plants, excluding we approximately 20 ft (6 m) or more in h than 3 in (7.6 cm) DBH.	
8.						
9.					Shrub – Woody plants, excluding woo approximately 3 to 20 ft (1 to 6 m) in h	
10						loight.
11.			<u> </u>		Herb - All herbaceous (non-woody) p	
····		95	= Total Cover		herbaceous vines, regardless of size, plants, except woody vines, less than	
	50% of total cover:	47.5	20% of total cover:	19	3 ft (1 m) in height.	approximatory
	50% of total cover.	47.3			Woody vine - All woody vines, regard	dless of height.
1	um (Plot Size: 20-foot radius plot)					
2						
3.					Remarks: (if observed, list morpholog	ical
-			<u> </u>		adaptations below.)	
			= Total Cover			
	50% of total cover:		20% of total cover:		Vegetation	lo
					Present?	

SOIL

Profile Des	cription: (Descri Matrix		e depth needeo		ument the ir Features	ndicator or o	confirm the abs	sence of	indicators.)	
Dooth	Color	<u> </u>	Color	Redux	realures					
Depth (Inches)	(Moist)	%	Color (Moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Textur	·Ω		Remarks
0-10	10 YR 5/2	80	7.5YR 4/6	20	<u> </u>	 PL	Clay loa			Romano
0.10	10 11( 0/2		7.011( 4/0	20						
	· · · · · · · · · · · · · · · · · · ·									
	·									
	·									
	·									
<sup>1</sup> Type: C=Co	oncentration, D=I	Depletion,	RM=Reduced	Matrix,	MS=Masked	Sand Grains	. <sup>2</sup> Location: PL	=Pore Li	ning, M=Matri	x
Hydric Soil	Indicators:							Indi	icators for Pr	oblematic Hydric Soils <sup>3</sup> :
Histos	ol (A1)			Polvva	lue Below Su	rface (S8) <b>(L</b>	.RR S. T. U)	1 cm	n Muck (A9) <b>(I</b>	LRR O)
	Epipedon (A2)			-	ark Surface (				n Muck (A10)	,
	Histic (A3)				Mucky Miner					-18) (Outside MLRA 150A, B
	gen Sulfide (A4)				Gleyed Matr				,	ain Soils (F19) (LRR P, S, T)
	ed Layers (A5)		X	-	ed Matrix (F3		—			Loamy Soils (F20)
	ic Bodies (A6) (L	RR P, T, I	U)		Dark Surface		—		MLRA 153B)	<b>,</b> ( )
	Aucky Mineral (A				ed Dark Surfa	. ,			Parent Mater	ial (TF2)
	Presence (A8) (L				Depressions		_			k Surface (TF12)
	Muck (A9) (LRR F	-		Marl (F	10) <b>(LRR U)</b>	· ·	-		er (Explain in I	
	ed Below Dark S	-	11)		ed Ochric (F1	1) (MLRA 1	51) —		、 ·	,
	Dark Surface (A1		, <u> </u>				LRR O, P, T)	310	diactors of by	drophytic vegetation and
	Prairie Redox (A		A 150A)		Surface (F1		-			gy must be present, unless
	Mucky Mineral (				Dchric (F17) (				turbed or prob	
	Gleyed Matrix (S		· /		ed Vertic (F18	-	0A, 150B)		·	
	Redox (S5)	,					) (MLRA 149A)	)		
	ed Matrix (S6)						F20) <b>(MLRA 14</b>		C, 153D)	
	Surface (S7) (LRF	R P, S, T,	U)		-		, .		•	
Restrictive	Layer (if observ	ed).								
	Type:	ou).			Hvd	Iric Soil Pre	sent?	Yes	х	No
Depth (	(inches):				,					
200411										
Remarks:										

#### WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site:	Bureau of	Engraving and Printing	on BARC	City/Cou	unty:	Greenbelt/	PG	Sampling Date:	8/07/19
Applicant/Owner:	Bureau	of Engraving and Prin	ting	State:	MD		Sampling Point:	DP-5	
Investigator(s):	DRC/M	IW		Section,	Townsh	ip, Range:			
Landform (hillslop	e, terrace, e	etc.): Flat pasture	Local re	lief (concave, o	convex, i	none):		Slope (%):	1%
Subregion (LRR o	or MLRA):	MLRA S 149A	Lat:	39° 02' 28.86"		Long:	76° 53' 09.79"	Datum:	NAD 83
Soil Map Unit Nan	ne: <u>Elkt</u>	on silt loam, 0-2% slop	es				NWI	classification:	UPL
Are climatic/hydro	logic condit	ions on the site typical	for this time of y	/ear?	Yes	s <u>X</u>	No	(If no, explain in	Remarks)
Are Vegetation	, Soil	, or Hydrology	significant	tly disturbed?	Are "N	Normal Circu	imstances" present	? Yes X	No
Are Vegetation	, Soil	, or Hydrology	naturally p	problematic?	(If ne	eded, explai	n any answers in R	emarks.)	

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No _ No _ No _	X X X	Is the Sampled Area within a Wetland?	Yes	No <u>X</u>
Remarks: Upland point adjacent to Wetland 2						

#### HYDROLOGY Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) Aquatic Fauna (B13) Sparsely Vegetated Concave Surface (B8) High Water Table (A2) Marl Deposits (B15) (LRR U) Drainage Patterns (B10) Hydrogen Sulfide Odor (C1) Moss Trim Lines (B16) Saturation (A3) Water Marks (B1) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Sediment Deposits (B2) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Drift Deposits (B3) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Thin Muck Surface (C7) Geomorphic Position (D2) Iron Deposits (B5) Other (Explain in Remarks) Shallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) FAC-Neutral Test (D5) Sphagnum Moss (D8) (LRR T, U) Water-Stained Leaves (B9)

Field Observations:							
Surface Water Present?	Yes	No	Х	Depth (inches):			
Water Table Present?	Yes	No	Х	Depth (inches):			
Saturation Present?					Wetland Hydrolog	у	
(includes capillary fringe)	Yes	No	Х	Depth (inches):	Present?	Yes	No X
,	siream gau	ge, monito	onng	well, aerial photos, previous	inspections), il available.		
Remarks:							
No signs of wetland hydrol	ogy						

Absolute     Absolute     Dominant     Inclustor       1.     Crays torrentsus     20     Y     FACU       3.     20     Y     FACU       3.     20     Y     FACU       3.     20     Y     FACU       3.     20     Y       4.     20     Y       5.     20     FTell Cover       5.     20     FTell Cover       20     FTell Cover     20% of total cover:       20% of total cover:     20% of total cover:       5.     20% of total cover:       20% of total cover:     20% of total cover:       5.     20% of total cover:       20% of total cover:	VEGETATION (F	ive Strata) - Use scientific nan	nes of plants.			Sampling Point:	
2	Tree Stratum (Plot	t Size: 20-foot radius plot)				Dominance Test worksheet:	
2.	1. Carya tome	ntosa	20	Y	FACU	Number of Dominant Species Th	nat
3.	2.						0
5.	3.						、,
5.	4.					Total Number of Dominant Speci	ies
6.	5.			· ·			
S0% of total cover:         20% of total cover:         Are OBL, FACW, or FAC::         0         (AB)           Stapling Stratum (Plot Size: 20-foot radius plot)         1.         Total S Cover of Cover         CBL, FACW, or FAC::         0         (AB)           3.	6.		-	· · · · · · · · ·			、
50% of total cover:         20% of total cover:         Are OBL, FACW, or FAC:         0         (AB)           3abiling Stratum (Plot Size: 20-foot radius plot)         -			20	= Total Cover		Percent of Dominant Species Th	at
1.		50% of total cove	r:	20% of total cover:			•
2.	Sapling Stratum (F	Plot Size: 20-foot radius plot)				Prevalence Index worksheet:	
3.	1.					Total % Cover of:	Multiply by:
4.	2.					OBL species	x 1 =
5.	3.					FACW species	x 2 =
6.	4.					FAC species	x 3 =
S0% of total cover:         20% of total cover:         Column Totals:         (A)         (B)           Shrub Stratum (Plot Size: 20-foot radius plot)	5.					FACU species	x 4 =
50% of total cover:       20% of total cover:         Shrub Stratum (Plot Size: 20-foot radius plot)	6.			·		UPL species	x 5 =
Shrub Stratum (Plot Size: 20-toot radius plot)       Prevalence Index = B/A =         1.				= Total Cover		Column Totals:	(A) (B)
Stratum (Plot Size: 20-toot radius plot)       Image: Constratum (Plot Size: 20-toot radius plot)         1.       Image: Constratum (Plot Size: 20-toot radius plot)         2.       Image: Constratum (Plot Size: 10-toot radius plot)         1.       Fastuce rubra         2.       Image: Constratum (Plot Size: 10-toot radius plot)         1.       Fastuce rubra         2.       Toxicodendron radicans         3.       Toxicodendron radicans         3.       Toxicodendron radicans         1.       Fastuce rubra         2.       Toxicodendron radicans         3.       Toxicodendron radicans         4.       Tee - Woody plants, excluding woody vines, approximately 20 tf (6 m) or more in height and 3 in.         7.       Tee - Woody plants, excluding woody vines, approximately 20 tf (6 m) or more in height and less than 3 in (7.6 m) DBH.         8.       Toxicodendron radicans plot)       Ter - Non bradicans or five Vegetation store vines, regardless of size, and woody pla		50% of total cove	r:	20% of total cover:			
1.       Hydrophytic Vegetation Indicators:         2.	Shruh Stratum (Pl	at Siza: 20 fact radius plat)				Prevalence Index = B/A =	
2.		or Size. <u>20-100r ladius plor</u>				Hydrophytic Vegetation Indica	tors:
3.				·			
4.							
5.				·			
6.				·			
solution       = Total Cover       (Explain)         1       = Total Cover       (Explain)         1       Festuca rubra       70       Y       FACU         2       Toxicodendron radicans       15       N       FAC         3.       Prus callerana       5       N       NI         5.				·			lie vogetation
50% of total cover:       20% of total cover:       Implicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.         Herb Stratum (Plot Size: 10-foot radius plot)       1.       Factuce rubra       70       Y       FACU         2.       Toxiccodendron radicans       15       N       FACU       Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) Deltars, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in (7.6 cm) DBH.         5.	···			= Total Cover			
Herb Stratum (Plot Size: 10-foot radius plot)       Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.         1       Festuca rubra       70       Y       FACU         2.       Toxicodendron radicans       15       N       FAC         3.       Pyrus callerana       5       N       NI         4.		50% of total cove	r.			(Explain)	
Herb Stratum (Plot Size: 10-foot radius plot)         1.       Festuca rubra       70       Y       FACU         2.       Toxicodendron radicans       15       N       FAC         3.       Pyrus callerana       5       N       NI         4.				20,000,000		<sup>1</sup> Indicators of hydric soil and wetlar	nd hydrology must be
I.       Festura rubra       70       Y       FACU         2.       Toxicodendron radicans       15       N       FAC         3.       Pyrus callerana       5       N       NI         4.						present, unless disturbed or proble	matic.
Totalcodendron radicans       15       N       FAC         3.       Pyrus callerana       5       N       NI         4.	Herb Stratum (Plo	t Size: 10-foot radius plot)					
3.       Pyrus callerana       5       N       NI         4.	1. Festuca rub	ra		Y	FACU	Definitions of Five Vegetation	Strata:
3.       Pyrus callerana       5       N       NI       approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).         5.	2. Toxicodend	ron radicans	15	<u>N</u>	FAC	Tree - Woody plants, excluding	woody vines,
S.	3. Pyrus caller	ana	5	<u>N</u>	NI	approximately 20 ft (6 m) or more	e in height and 3 in.
6.	4.	_				(7.6 cm) or larger in diameter at	breast height (DBH).
7.	5.					Sapling - Woody plants, excludir	ng woody vines,
8.	6.						e in height and less
9.	7.					than 3 In (7.6 cm) DBH.	
10.	8.						
11.	9.					approximately 3 to 20 ft (1 to 6 m	ı) in height.
11.	10.					Herb - All herbaceous (non-wood	dy) plants, including
50% of total cover:       45       20% of total cover:       18       3 ft (1 m) in height.         Woody Vine Stratum (Plot Size: 20-foot radius plot)       45       20% of total cover:       18       Woody vine - All woody vines, regardless of height.         1.	11.					herbaceous vines, regardless of	size, and woody
Woody Vine Stratum (Plot Size: 20-foot radius plot)       Woody vine - All woody vines, regardless of height.         1.							than approximately
Woody Vine Stratum (Plot Size: 20-foot radius plot)         1.         2.         3.         3.         50% of total cover:         20% of total cover:         4         Hydrophytic         Yes         No         X		50% of total cove	r: 45	20% of total cover:	18		
1.						Woody vine - All woody vines, re	egardless of height.
2.	Woody Vine Stratu	<u>um</u> (Plot Size: <u>20-foot radius pl</u>	<u>ot)</u>				
3. Remarks: (if observed, list morphological adaptations below.) = Total Cover 50% of total cover:				<u></u>			
= Total Cover       adaptations below.)         50% of total cover:       20% of total cover:         Yegetation       No				<u></u>			<u> </u>
= Total Cover 50% of total cover: 20% of total cover: Hydrophytic Yes No X Vegetation	3.						nological
50% of total cover: 20% of total cover: Hydrophytic Yes No X Vegetation							
Vegetation							
		50% of total cove	r:	20% of total cover:			<u>No X</u>
						•	

S	Ο	I	L

Profile Desc	ription: (Descr		e depth need			dicator or c	onfirm the ab	sence of indi	cators.)	
	Matrix	x		Redox	Features					
Depth	Color	0/	Color	0/	<b>T</b>	12	<b>T</b>		Demo	
(Inches)	(Moist)	% 100	(Moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Textu		Rema	Irks
0-3	10YR 3/4	100	. <u></u>				loam			
3-12	10YR 4/4	100	. <u></u>				loam	<u> </u>		
			. <u></u>							
			. <u></u>							
								<u> </u>		
								<u> </u>		
								<u> </u>		
<sup>1</sup> Type: C=Co	ncentration, D=	Depletior	n, RM=Reduce	d Matrix, I	MS=Masked	Sand Grains	<sup>2</sup> Location: PL	_=Pore Lining,	M=Matrix	
Hydric Soil I	ndicators:							Indicato	rs for Problematic H	lydric Soils <sup>3</sup> :
Histoso	l (A1)			Polyval	lue Below Su	rface (S8) <b>(I</b>	RRSTU)	1 cm Mur	ck (A9) <b>(LRR O)</b>	
	pipedon (A2)				ark Surface (S				ck (A10) <b>(LRR S)</b>	
	listic (A3)			_	Mucky Miner		-		Vertic (F18) (Outsid	e MLRA 150A. B)
	en Sulfide (A4)			_	Gleyed Matri				t Floodplain Soils (F1	-
	ed Layers (A5)			_	ed Matrix (F3)		-		us Bright Loamy Soils	
	Bodies (A6) (L	.RR P, T	U)	_	Dark Surface				A 153B)	· · ·
	ucky Mineral (A			_	ed Dark Surfa	. ,		-	ent Material (TF2)	
	resence (A8) (L			Redox	Depressions	(F8)	_		llow Dark Surface (T	F12)
1 cm M	uck (A9) <b>(LRR</b>	P, T)		 Marl (F	10) <b>(LRR U)</b>		_		kplain in Remarks)	
Deplete	ed Below Dark S	Surface (/	A11)	Deplete	ed Ochric (F1	1) (MLRA 15	i1) <u> </u>			
Thick D	ark Surface (A1	12)		Iron-Ma	anganese Ma	sses (F12) <b>(</b> I	_RR O, P, T)	<sup>3</sup> Indicate	ors of hydrophytic veg	retation and
Coast F	Prairie Redox (A	16) <b>(ML</b> I	RA 150A)	Umbric	Surface (F13	B) (LRR P, T	U)		hydrology must be p	
Sandy	Mucky Mineral (	(S1) <b>(LRF</b>	τ O, S)	Delta C	Ochric (F17) <b>(</b> I	MLRA 151)			d or problematic.	·
Sandy	Gleyed Matrix (	S4)		Reduce	ed Vertic (F18	B) (MLRA 15	0A, 150B)			
Sandy	Redox (S5)			Piedmo	ont Floodplair	s Soils (F19	) (MLRA 149A)	)		
Strippe	d Matrix (S6)			Anoma	lous Bright Lo	oamy Soils (F	20) <b>(MLRA 14</b>	9A, 153C, 15	3D)	
Dark S	urface (S7) <b>(LR</b>	R P, S, T	, U)							
Restrictive L	ayer (if observ	ved):								
	Туре:				Hyd	ric Soil Pres	sent?	Yes	No	X
Depth (i	nches):									
Remarks:										
Kennarks.										

## WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Bureau	of Engra	ving and P	rinting on	BARC	City	//Coun	ity: C	Greenbe	lt/PG	:	Sampling	g Date:	8/07/19
Applicant/Owner: Bur	eau of En	graving an	d Printing	9	Sta	te:	MD		Sampling	Point:	DP-6	6	
Investigator(s): DR	C/MW				Sec	ction, T	Township,	Range:					
Landform (hillslope, terrac	e, etc.):	Flat past	ure	Local	relief (conca	ave, co	onvex, noi	ne):	concave		Slope (%	b): <u>3</u> 9	%
Subregion (LRR or MLRA	): <u>MLR</u>	A S 149A		Lat:	39° 02' 19	.16"		Long:	76° 52' 57.0	65"		Datum:	NAD 83
Soil Map Unit Name:										NWI c	lassifica	tion:	PEM
Are climatic/hydrologic co	nditions o	n the site t	ypical for	this time c	f year?		Yes	Х	No		lf no, ex	plain in F	Remarks)
Are Vegetation, S	il	, or Hydro	logy	significa	antly disturbe	ed?	Are "No	rmal Cire	cumstances" p	resent	Ye:	s X	No
Are Vegetation, S	ioil	, or Hydro	logy	natural	y problemat	ic?	(If need	ed, expl	ain any answe	rs in Re	emarks.)		
SUMMARY OF FINDING	S - Attacł	n site map	showing	g sampling	g point loca	tions,	transect	s, impo	rtant features,	, etc.			
Hydrophytic Vegetation P	resent?	Yes	х	No			Is the S	ampled	Area				
Hydric Soil Present?		Yes	Х	No			within a	a Wetlar	nd? Y	es	Х	No	
Wetland Hydrology Prese	nt?	Yes	Х	No									
Remarks: Wetland 3 Data point							L						

# HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; che	ck all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Marl Deposits (B15) (LRR U)	X Drainage Patterns (B10)
Saturation (A3)	Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1)	X Oxidized Rhizospheres along Living Roots (C3)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3)	Recent Iron Reduction in Tilled Soils (C6)	X Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5)	Other (Explain in Remarks)	X Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)		X FAC-Neutral Test (D5)
Water-Stained Leaves (B9)		Sphagnum Moss (D8) (LRR T, U)

Field Observations:											
Surface Water Present?	Yes	N	0	Х	Depth (inches):						
Water Table Present?	Yes	N	0	Х	Depth (inches):		-				
Saturation Present?			_		-		Wetland Hydrology				
(includes capillary fringe)	Yes	N	0	Х	Depth (inches):		Present?	Yes	Х	No	
Describe Recorded Data (s	stream g	gauge, mo	nito	ring \	well, aerial photos, p	revious inspec	tions), if available:				
Remarks:											
Komano.											

VEG	ETATION (Five Strata) - Use scientific names	of plants.			Sampling Point:	
Tree	Stratum (Plot Size: 20-foot radius plot)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. 2. 3.					Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (,	A)
4. 5. 6.					Total Number of Dominant Species         Across All Strata:       2	B)
	50% of total cover:		= Total Cover 20% of total cover:		Percent of Dominant Species That Are OBL, FACW, or FAC:(A	/B)
Sapl	ing Stratum (Plot Size: 20-foot radius plot)				Prevalence Index worksheet:	
1.					Total % Cover of: Multiply by:	
2.					OBL species x 1 =	
3.					FACW species x 2 =	
4.					FAC species x 3 =	
5.					FACU species x 4 =	
6.					UPL species x 5 =	
	50% of total cover:		= Total Cover 20% of total cover:		Column Totals: (A)	(B)
Shri	b Stratum (Plot Size: 20-foot radius plot)				Prevalence Index = B/A =	
1.	<u>io oratani</u> (Fiot 0120. <u>20 100; 140103 pioty</u>				Hydrophytic Vegetation Indicators:	
2.			<u> </u>		1 - Rapid Test for Hydrophytic Vegetatio	n
2. 3.			<u> </u>		2 - Dominance Test is >50%	
4.					3 - Prevalence Index is ≤3.0 <sup>1</sup>	
 5.					Problematic Hydrophytic Vegetation <sup>1</sup>	
6.			<u> </u>			
0.			= Total Cover			
	50% of total cover:		20% of total cover:		(Explain)	
					<sup>1</sup> Indicators of hydric soil and wetland hydrology must present, unless disturbed or problematic.	се
Herb	Stratum (Plot Size: 10-foot radius plot)					
1.	Persicaria sagittata	8	Ν	OBL	Definitions of Five Vegetation Strata:	
2.	Echinochloa cruz-gali	10	N	FACW	Tree - Woody plants, excluding woody vines,	
3.	Persicaria hydropiperoides	15	Y	OBL	approximately 20 ft (6 m) or more in height and 3 i	n.
4.	Juncus effuses	30	Y	OBL	(7.6 cm) or larger in diameter at breast height (DB	H).
5. 6.	Arthraxon hispidus	5	N	FAC	<b>Sapling -</b> Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less	s
7.					than 3 in (7.6 cm) DBH.	
8.					Shrub – Woody plants, excluding woody vines,	
9.					approximately 3 to 20 ft (1 to 6 m) in height.	
10.					Herb All borbassous (non woody) plants includi	~~
11.					Herb - All herbaceous (non-woody) plants, includin herbaceous vines, regardless of size, and woody	ıy
		68	= Total Cover		plants, except woody vines, less than approximate	ly
	50% of total cover:	34	20% of total cover:	13.6	3 ft (1 m) in height.	
Woo	dy Vine Stratum (Plot Size: 20-foot radius plot)				Woody vine - All woody vines, regardless of heigh	nt.
1.	· · · · ·					
2.			·			
2. 3.					Remarks: (if observed, list morphological	
э.			<u> </u>		adaptations below.)	
			= Total Cover			
	50% of total cover:		20% of total cover:		Hydrophytic Yes X No	
					Vegetation	
					Present?	

Matrix Redox Features			
Depth Color Color			
(Inches) (Moist) % (Moist) % Type <sup>1</sup> Loc <sup>2</sup> Texture Remarks			
0-2 10 YR 4/3 80 7.5YR 4/6 20 C PL loam			
7.5YR2.5/           2-4         7.5YR 4/4         70         1         30         C         M         Clay loam			
7.5YR2.5/ 4-11 7.5YR 5/6 80 1 20 C M Clay			
······································			
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix			
Hydric Soil Indicators: Indicators for Problematic Hydric	: Soils <sup>3</sup> :		
Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O)			
Histic Epipedon (A2)         Thin Dark Surface (S9) (LRR S, T, U)         2 cm Muck (A10) (LRR S)			
Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (Outside MLI	-		
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LF			
Stratified Layers (A5) X Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20)	))		
Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B)			
5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) X Red Parent Material (TF2)			
Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12)	allow Dark Surface (TF12)		
1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (Explain in Remarks)			
Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T) <sup>3</sup> Indicators of hydrophytic vegetation			
Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) wetland hydrology must be presen	it, unless		
Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) disturbed or problematic.			
Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B)			
Sandy Redox (S5) Piedmont Floodplains Soils (F19) (MLRA 149A)			
Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)			
Dark Surface (S7) (LRR P, S, T, U)			
Restrictive Layer (if observed):			
Type:         Hydric Soil Present?         Yes         X         No	<u> </u>		
Depth (inches):			
Remarks:			

### WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Bureau of Engraving and Printing on BARC				City/Cou	inty:	Greenbelt/PG		Sampling Date:	8/07/19
Applicant/Owner:	Bureau	of Engraving and Printin	ng	State:	MD		Sampling Poin	t: DP-7	
Investigator(s):	DRC/M	W		Section,	Township	, Range:			
Landform (hillslop	e, terrace, e	etc.): Flat pasture	Local r	elief (concave, c	convex, no	one):	concave	Slope (%): <	1%
Subregion (LRR o	or MLRA):	MLRA S 149A	Lat:	39° 02' 11.88"		Long:	76° 52' 54.51"	Datum:	NAD 83
Soil Map Unit Nan	ne:						NW	I classification:	PEM
Are climatic/hydro	logic condit	ions on the site typical fo	or this time of	year?	Yes	Х	No	(If no, explain in F	(emarks)
Are Vegetation	, Soil	, or Hydrology	significar	ntly disturbed?	Are "No	ormal Ciro	cumstances" prese	nt? Yes X	No
Are Vegetation	, Soil	, or Hydrology	naturally	problematic?	(If nee	ded, expla	ain any answers in	Remarks.)	

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ Yes _ Yes _	X X X	No No No	Is the Sampled Area within a Wetland?	Yes	x	No
Remarks: Wetland 4 Data point Southern portion of wetland 4, south	n of the int	ermittent s	tream ch	4)			

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; ch	eck all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Marl Deposits (B15) (LRR U)	X Drainage Patterns (B10)
X Saturation (A3)	Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1)	X Oxidized Rhizospheres along Living Roots (C3)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3)	Recent Iron Reduction in Tilled Soils (C6)	X Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5)	Other (Explain in Remarks)	X Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)		X FAC-Neutral Test (D5)
Water-Stained Leaves (B9)		Sphagnum Moss (D8) (LRR T, U)

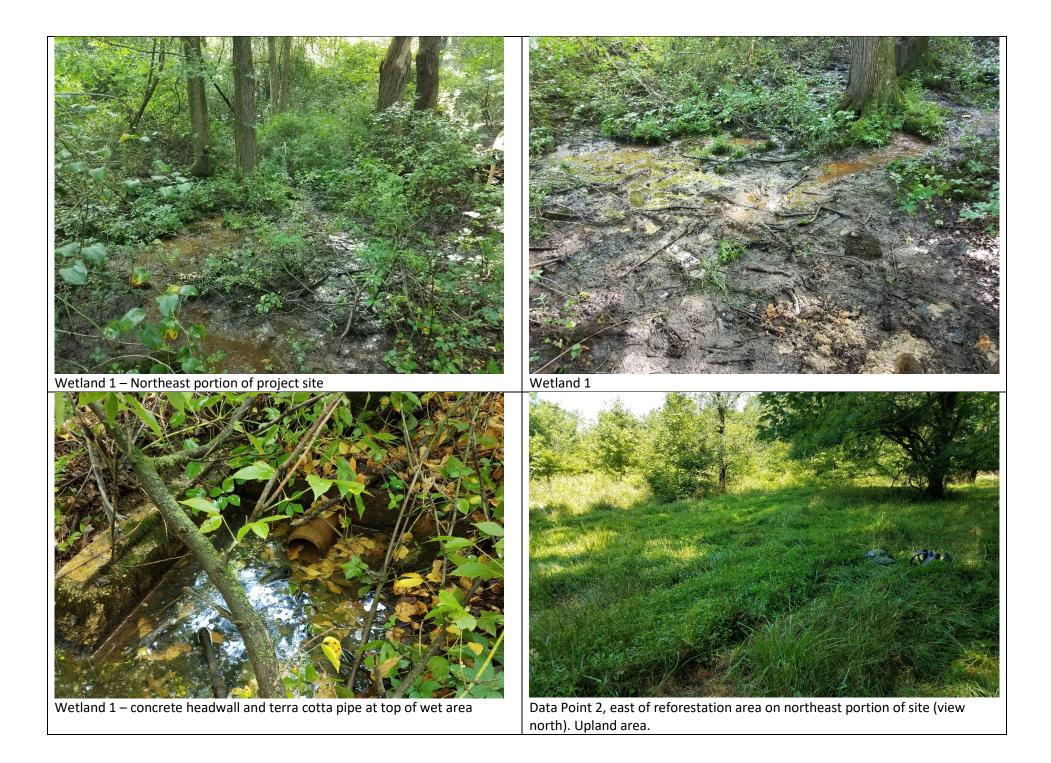
Field Observations:										
Surface Water Present?	Yes	Х	No	Depth (inches):	1"					
Water Table Present?	Yes	Х	No	Depth (inches):	6"					
Saturation Present?			. –			Wetland Hydrology				
(includes capillary fringe)	Yes	X	No	Depth (inches):	0"	Present?	Yes	X	No	_
Describe Recorded Data (s	Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:									
Remarks:										
Emergent wetland surround	ding inte	ermitte	nt strea	ım channel (WUS-4)						

VEGETATION (Five Strata) - Use scientific names	of plants.			Sampling Point:
Tree Stratum (Plot Size: 20-foot radius plot)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1.       2.       3.				Number of Dominant Species That         Are OBL, FACW, or FAC:       2         (A)
4 5		·		Total Number of Dominant Species Across All Strata: (B)
50% of total cover:		= Total Cover 20% of total cover:		Percent of Dominant Species That Are OBL, FACW, or FAC:(A/B)
Sapling Stratum (Plot Size: 20-foot radius plot)				Prevalence Index worksheet:
1.				Total % Cover of: Multiply by:
2.		·		OBL species x 1 =
3.		·		FACW species x 2 =
4.		·		FAC species x 3 =
5.		· ·		FACU species x 4 =
6.		·		UPL species x 5 =
		= Total Cover		Column Totals: (A) (B)
50% of total cover:		20% of total cover:		
Shrub Stratum (Plot Size: 20-foot radius plot)				Prevalence Index = B/A =
1.				Hydrophytic Vegetation Indicators:
2.		·		1 - Rapid Test for Hydrophytic Vegetation
3.		·		2 - Dominance Test is >50%
4.		·		$3 - Prevalence Index is \leq 3.0^{1}$
5.		·		Problematic Hydrophytic Vegetation <sup>1</sup>
6.		·		
0		= Total Cover		
50% of total cover:		20% of total cover:		(Explain)
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be
Herb Stratum (Plot Size: 10-foot radius plot)				present, unless disturbed or problematic.
	50	V		Definitions of Five Vegetation Strata:
1. <u>Microstegium vimineum</u>	50	Y	FAC	bennitons of the vegetation of ata.
2. Phalaris arundinacea	60 5	<u> </u>	FACW OBL	<b>Tree -</b> Woody plants, excluding woody vines,
3. <u>Persicaria hydropiperoides</u>		·		approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
4. Vernonia noveboracensis	15	N	FACW	
5.		·		<b>Sapling -</b> Woody plants, excluding woody vines,
6.		·		approximately 20 ft (6 m) or more in height and less than 3 in (7.6 cm) DBH.
7		·		
8		·		<b>Shrub</b> – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
9		·		approximately 5 to 20 it (1 to 6 iii) in height.
10		·		Herb - All herbaceous (non-woody) plants, including
11				herbaceous vines, regardless of size, and woody
	130	= Total Cover		plants, except woody vines, less than approximately 3 ft (1 m) in height.
50% of total cover:	65	20% of total cover:	26	
Woody Vino Stratum (Plot Sizo: 20 foot radius plot)				<b>Woody vine -</b> All woody vines, regardless of height.
Woody Vine Stratum (Plot Size: 20-foot radius plot) 1.				
		·		
2		·		Remarks: (if observed, list morphological
3				adaptations below.)
		Total Onur		
		= Total Cover		Hydrophytic Yes X No
50% of total cover:		20% of total cover:		Hydrophytic Yes X No Vegetation Present?

|--|

Matrix         Redox Features           Depth         Color         Color           (Inches)         (Moist)         %         Type1         Loc2         Texture         Remarks           0-1         10 YR 3/2         100          Ioam         Ioam         Ioam           1-8         10YR 5/2         80         10YR 4/6         20         C         PL         Silt Ioam           8-12         10YR 5/6         70         10YR 4/6         30         C         PL         Clay Ioam							
(Inches)         (Moist)         %         (Moist)         %         Type1         Loc2         Texture         Remarks           0-1         10 YR 3/2         100							
0-1         10 YR 3/2         100         Ioam           1-8         10YR 5/2         80         10YR 4/6         20         C         PL         Silt loam							
1-8         10YR 5/2         80         10YR 4/6         20         C         PL         Silt loam							
8-12 10YR 5/6 70 10YR 4/6 30 C PL Clay loam							
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix							
Hydric Soil Indicators: Indicators for Problematic Hydric Soi	ls³:						
Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O)							
Histic Epipedon (A2)       Thin Dark Surface (S9) (LRR S, T, U)       2 cm Muck (A10) (LRR S)							
Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (Outside MLRA 1	Reduced Vertic (F18) (Outside MLRA 150A, B)						
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR F	', S, T)						
Stratified Layers (A5) X Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20)							
Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B)							
5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) X Red Parent Material (TF2)	-						
Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12)							
1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (Explain in Remarks)							
Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151)							
Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T) <sup>3</sup> Indicators of hydrophytic vegetation at	nd						
Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) wetland hydrology must be present, un	less						
Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) disturbed or problematic.							
Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B)							
Sandy Redox (S5) Piedmont Floodplains Soils (F19) (MLRA 149A)							
Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)	alous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)						
Dark Surface (S7) (LRR P, S, T, U)							
Restrictive Layer (if observed):							
Type: Hydric Soil Present? Yes X No							
Depth (inches):							
Demostro							
Remarks:							
Remarks:							
Remarks:							
Remarks:							
Remarks:							
Remarks:							
Remarks:							
Remarks:							
Remarks:							
Remarks:							
Remarks:							
Remarks:							
Remarks:							

APPENDIX C Photographs





Open manhole in center of pasture near DP-3; marked by two metal stakes painted green on their tips. Flow was visible at the bottom, travelling south.

Wetland 4 (DP-3) drains to an intermittent stream to the south, which flows southwest across the pasture and crosses Poultry Road at this culvert structure.



Culvert which drains WUS-4 and Wetland 4 under Poultry Road