

PRESERVATION AREA SITE ASSESSMENT POTOMAC TECHNOLOGY PARK (161 DATA CENTER) PRINCE WILLIAM COUNTY, VIRGINIA

TNT PROJECT NO.: 1980

PWC Plan #: ASP2022-00015S01

FOR

LAND DESIGN CONSULTANTS, INC.

JANUARY 14, 2021

January 14, 2021



Mr. Josh Marshall Land Design Consultants, Inc. 4585 Daisy Reid Ave. Suite 201 Woodbridge, VA 22192

TNT Project Number: 1980

Reference: Preservation Area Site Assessment, Potomac Technology Park (161 Data Center), Prince William County, Virginia **PWC Plan Number: ASP2022-00015S01** Latitude: 38°37′41″ N, Longitude: -77°25′15″ W

Dear Mr. Marshall:

TNT Environmental, Inc. (TNT) is pleased to present this Preservation Area Site Assessment for the above-referenced project in general accordance with TNT Proposal Number 2729-R dated May 21, 2020. The stream assessments conducted by TNT and detailed in this report are based on the Fairfax County "Perennial Stream Field Identification Protocol" (dated May 2003), which is the accepted protocol in Prince William County. This report was developed to identify bodies of water with perennial flow, and subsequently, the presence of a Resource Protection Area (RPA) boundary. Based on the field investigation conducted in June 2020, there perennial streams, including Quantico Creek, located within and adjacent to the study area.

PROJECT SITE DESCRIPTION

The project site is approximately 173.86 acres situated south of Dumfries Road in Prince William County, Virginia (*Appendix I: Figure 1- Project Location Map*). The project site is further identified by physical addresses: 14854, 15008, 15010, 15012, and 15024 Dumfries Road and Prince William County GPINs: 7991-43-1823, 7991-43-3103, 7991-42-7263, 7991-43-4019, and 7991-13-1559. The terrain of the project site consists of mostly unimproved east and west moderate to steep facing slopes. Several drainage features, including Quantico Creek, transects the site (*Appendix I: Figure 2- USGS Topographic Map*). A powerline easement bisects the site.

SECONDARY INFORMATION REVIEW

Secondary information entails the background research and review of recorded data and/or mapping associated with the project site. Resources reviewed include but are not limited to the following:

- U. S. Geological Survey (USGS) Topographic Map, Independent Hill Quadrangle and Joplin Quadrangle (2019)
- U. S. Fish and Wildlife Service (USFWS), National Wetlands Inventory (NWI) Online Mapper, https://www.fws.gov/wetlands/data/mapper.html
- Natural Resources Conservation Service (NRCS), Electronic Field Office Technical Guide, Prince William County Soils, <u>https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx</u>
- Available aerial photography and GIS data

The USGS Independent Hill and Joplin quadrangle map show elevations of approximately 390 feet above mean sea level (MSL) in the Northwest portion of the site and approximately 305 feet above MSL in the central portions. As shown on the USGS Map, the project site drains to Quantico Creek, located within the Chesapeake Bay watershed and identified as Hydrologic Unit Code (HUC) 02070010. The NWI map depicts freshwater emergent, freshwater forested/shrub, and riverine wetland features within the project site boundaries.

The soil survey indicates that the site is underlain primarily by Buckhall Ioam (10C), Delanco fine sandy Ioam (16A), Elioak Ioam (19B), Fairfax Ioam (21B), Glenelg-Buckhall (24C), Hatboro-Codorus (27A), Hoadly Ioam (29B), Meadowville Ioam (38B), Neabsco Ioam (41B, 41C) 0-7, 7-15 percent slopes, Occoquan sandy Ioam (44D). Delanco fine sandy Ioam (16A), Elioak Ioam (19B), Hatboro-Codorus (27A), and Meadowville Ioam (38B) are classified by the NRCS as hydric.

FIELD INVESTIGATION & METHODOLOGY

The analysis contained in this report uses the results of a field survey conducted by TNT in June 2020. Florescent pink demarcation flags were placed in the field and sequentially numbered to provide an onsite record of the location of wetlands and other Waters subject to the jurisdiction of state and federal agencies. The data sheets used in this investigation are enclosed (see *Appendix III*), along with a photographic log documenting site conditions (*Appendix IV*), and the delineation map showing approximate data point locations and boundaries of potentially jurisdictional wetlands and other Waters (*Appendix V*).

The delineation of wetlands was conducted using the *Corps of Engineers' Wetlands Delineation Manual* (1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains & Piedmont Region.* The USACE Manual and associated Regional Supplement follow three parameters for the identification of wetlands: dominance of hydrophytic vegetation, presence of hydric soils, and hydrologic indicators. All three parameters must be present under normal conditions for an area to be considered a jurisdictional wetland in accordance with Section 404 of the Clean Water Act. Streams were delineated based on the limits of the ordinary high-water mark (OHWM), which can be determined by several factors. Physical characteristics include, but are not limited to, clear, natural line impressed on the bank; shelving; changes in the character of soil; destruction of terrestrial vegetation/scouring; the presence of litter and debris, wrack lines; and other appropriate means such as gauge data, historical records, flood predictions, and statistical analysis.

TNT conducted a perennial flow determination on June 9, 2020 of the streams located within the project site. The assessment utilizes the Fairfax County Perennial Stream Field Identification Protocol (May 2003). The data sheets used in this investigation are enclosed. The protocol is a tiered scoring system that evaluates stream characteristics associated with hydrology, geomorphology, soils, vegetation, and aquatic wildlife to differentiate between perennial and intermittent flow. A score of 25 is typically considered perennial. Scores within 3 points of the perennial thresholds for both evaluations should be reassessed during the low-flow periods of the year when intermittent streams generally dry up.

For the purpose of this report, wetlands and other Waters are then further classified according to the Cowardin System as described in *Classification of Wetlands and Deepwater Habitats of the United States* (1979).

PRECIPITATION DATA

Precipitation data for the National Oceanic & Atmospheric Administration – Nokesville 4.0 S, VA US Weather Station was reviewed to document recent rainfall events and seasonal precipitation that may have recently influenced the characteristics and flow of the onsite streams. Based on the recorded precipitation at the Nokesville 4.0 S, VA US station, the last rainfalls in relation with the June 9, 2020 assessments occurred on June 6, 2020, for a total of 0.23 inches. The detailed descriptions of site conditions encountered at the data point locations are included below; see the attached datasheets for more detailed information.

FINDINGS - WETLAND DELINEATION

Based on our field reconnaissance, TNT has identified and located palustrine forested (PFO), palustrine scrub-shrub (PSS), and palustrine emergent (PEM) wetlands onsite. The main source of hydrology for these wetlands include floodwaters and high groundwater table. The wetlands are underlain primarily by Hatboro-Codorus complex and Meadowville loam.

Other waters on site include perennial, intermittent, and ephemeral streams. It is TNT's opinion that under the Final Rule published on April 21, 2020, the ephemeral streams and several associated wetlands located on site do not directly connect to receiving water bodies and are; therefore, not subject to federal jurisdiction. However, these features will likely be subject to state jurisdiction.

A summary of the attached data sheets characterizing the wetlands is included below in Table 1. Dominant wetland and riparian vegetation is listed below in Table 2. The dominant upland vegetation, which consists largely of Tulip Poplar and American Beech is listed below in Table 3. The remaining site contains ruder vegetation associated with the maintained transmission easement.

Table 1 – Data Points Summary

Data Point	Hydrology	Hydrophytic Vegetation	Hydric Soils	Classification
DP-1	Yes	Yes	Yes	PFO Wetland
DP-2	No	No	No	Non-Wetland
DP-3	No	No	Yes	Non-Wetland
DP-4	Yes	Yes	Yes	PEM Wetland
DP-5	Yes	Yes	Yes	PFO Wetland
DP-6	Yes	No	Yes	Non-Wetland
DP-7	No	No	No	Non-Wetland
DP-8	No	Yes	No	Non-Wetland
DP-9	Yes	Yes	Yes	PFO Wetland
DP-10	No	No	No	Non-Wetland
DP-11	No	Yes	No	Non-Wetland
DP-12	Yes	Yes	Yes	PFO Wetland
DP-13	No	No	No	Non-Wetland
DP-14	No	Yes	No	Non-Wetland
DP-15	No	Yes	No	PFO Wetland
DP-16	Yes	Yes	Yes	PFO Wetland
DP-17	Yes	No	Yes	Non-Wetland
DP-18	Yes	Yes	Yes	PFO Wetland
DP-19	No	Yes	No	Non-Wetland
DP-20	Yes	Yes	Yes	PFO Wetland
DP-21	No	Yes	No	Non-Wetland
DP-22	No	No	No	Non-Wetland
DP-23	No	No	No	Non-Wetland
DP-24	No	No	No	Non-Wetland
DP-25	No	No	Yes	Non-Wetland
DP-A	Yes	No	No	Non-Wetland
DP-B	Yes	Yes	Yes	PFO Wetland
DP-C	Yes	Yes	Yes	PFO Wetland
DP-D	Yes	No	Yes	Non-Wetland
DP-E	Yes	Yes	Yes	PFO Wetland
DP-F	Yes	No	Yes	Non-Wetland
DP-G	Yes	Yes	Yes	PFO Wetland
DP-H	No	No	Yes	PFO Wetland
DP-I	No	No	No	Non-Wetland
DP-J	No	No	No	Non-Wetland
DP-JJ1	Yes	No	Yes	Non-Wetland
DP-JJ2	Yes	No	Yes	PFO Wetland

Data Point	Hydrology	Hydrophytic Vegetation	Hydric Soils	Classification
DP-K	Yes	Yes	Yes	PFO Wetland
DP-KK	Yes	Yes	Yes	PFO Wetland
DP-L	No	No	No	Non-Wetland
DP-M	No	No	No	Non-Wetland
DP-N	No	No	No	Non-Wetland
DP-O	Yes	Yes	Yes	PFO Wetland

*Refer to the enclosed data sheets for more information.

Table 2 – Dominant Riparian Buffer and Wetland Vegetation

Common Name	Scientific Name	Wetland Indicator*
Red Maple	Acer rubrum	FAC
American Sweetgum	Liquidambar styraciflua	FAC
Black Gum	Nyssa sylvatica	FAC
American Hornbeam	Carpinus caroliniana	FAC
Northern Lady Fern	Athyrium angustum	FAC
Japanese Stiltgrass	Microstegium vimineum	FAC
Gray Sedge	Carix grayi	FAC
Swamp Rose	Rosa palustris	OBL

* The indicator status of a species indicates the probability that the species will occur in a wetland, as follows: Obligate Upland (UPL, <1%), Facultative Upland (FACU, 1-33%), Facultative (FAC, 34-66%), Facultative Wetland (FACW, 67-99%), and Obligate Wetland (OBL, >99%) in accordance with the National List of Plant Species that Occur in Wetlands: National Summary (2012). NI means no wetland indicator is available.

Table 3 – Dominant Upland Vegetation

Common Name	Scientific Name	Wetland Indicator
American Beech	Fagus grandiflora	FACU
Tulip Poplar	Liriodendron tulipifera	FACU
American Holly	llex opaca	FACU
White Oak	Quercus alba	FACU
Southern Red Oal	Quercus rubra	FACU
Northern Red Oak	Quercus falcata	FACU
Virginia Pine	Pinus virginiana	NI
Loblolly Pine	Pinus taeda	FAC
Mockernut Hickory	Carya tomentosa	NI
Multi-flora Rose	Rosa multiflora	FACU
Roundleaf Greenbrier	Smilax rotundifolia	FAC

FINDINGS – PERENNIAL FLOW DETERMINATION

TNT conducted five (5) perennial flow assessments on representative sections of the streams encountered during the reconnaissance. A summary of these determinations is listed in Table 4 below. A map showing the approximate perennial flow determination locations is enclosed. Perennial flow assessments were not conducted on dry ephemeral channels or Quantico Creek, a well-documented perennial stream.

Data Point	Streamflow/ Hydrology	Geomorphology	Streambed Soils	Vegetation	Benthics/ Vertebrates	Total
PFD-1	7	16	1	1.5	4	29.5
PFD-2	7	10	0	0.5	1.5	20
PFD-3	5	9	0	1	2.5	17.5
PFD-4	2	3	1.5	0	0	6.5
PFD-5	2	1.5	1.5	0	0	4

Table 4 – Perennial Flow Determination Summary

*Results of Fairfax County Perennial Stream Field Identification Protocol (2003), see attached data sheets for more information. Streamflow points out of a maximum of 10.5, Geomorphology out of 30, Soils out of 4.5, Vegetation out of 10.5, Benthics & Vertebrates out of 7.5 (Total out of 63).

<u> PFD-1</u>

As detailed in the datasheet for the stream reach at PFD-1, this stream channel averages approximately six feet in width and drains southeast to Quantico Creek in the southern portion of the site. Flowing water was observed during the assessment. Drift lines, sedimentation, and leaflitter was also observed.

This second order stream exhibited a moderate continuous bed and bank, riffle-pool sequence, substrate sorting, sinuosity, and bankfull bench. Redoximorphic features were absent within the stream bank soils and the matrix contained a chroma of 2. Green algae and iron oxidizing bacteria was present. Many common benthic macroinvertebrates and amphibians, including crayfish, aquatic worms, beetles, snails, and tadpoles/toads, were observed throughout this portion of the reach.

Overall, the stream scored 29.5 on the Fairfax County Protocol and should be considered perennial.

<u> PFD-2</u>

As detailed in the datasheet for the stream reach at PFD-2, this stream channel averages approximately three feet in width and drains southwest to Quantico Creek. Flowing water was observed during the assessment. A high groundwater table, drift lines and leaflitter were also observed.

This first order stream exhibited a strong continuous bed and bank, with moderate riffle-pool sequence, substrate sorting, and sinuosity. Redoximorphic features were present within the stream bank soils and the matrix contained a chroma of 4. Green algae was observed, as were some common benthic macroinvertebrates and amphibians, including crayfish, aquatic worms, beetles, snails, and tadpoles/toads.

Overall, the stream scored 20 on the Fairfax County Protocol and should not be considered perennial.

<u> PFD-3</u>

As detailed in the datasheet for the stream reach at PFD-3, this stream channel averages approximately four feet in width and drains south to Quantico Creek. Some flowing water was observed during the assessment as was a high groundwater table, drift lines and leaflitter.

This first order stream exhibited a moderate continuous bed and bank, riffle-pool sequence, substrate sorting. Some sinuosity, bankfull bench and natural levees were also present. Redoximorphic features were absent within the stream bank soils and the matrix contained a chroma of 4. Green algae was observed, as were some common benthic macroinvertebrates and amphibians, including Water boatman, mosquito larvae, aquatic worms, snails, and tadpoles.

Overall, the stream scored 17.5 on the Fairfax County Protocol and should not be considered perennial.

<u> PFD-4</u>

As detailed in the datasheet for the stream reach at PFD-4, this stream channel averages approximately four feet in width and drains south to Quantico Creek. Flowing water was absent during the assessment. Heavy leaflitter was present, with minimal drift lines and sediment deposits.

This first order stream exhibited a weak continuous bed and bank, riffle-pool sequence, and substrate sorting; however, all other geomorphological field indicators were absent. Redoximorphic features were absent within the stream bank soils and the matrix contained a chroma of 4. No benthic macroinvertebrates or amphibians were observed within the reach.

Overall, the stream scored 6.5 on the Fairfax County Protocol and should not be considered perennial.

<u> PFD-5</u>

As detailed in the datasheet for the stream reach at PFD-4, this stream channel averages approximately one foot in width and drains north to Quantico Creek. Some ponded water was present during the assessment, but no apparent flow. Heavy leaflitter was present, with weak drift lines and sediment deposits.

This first order stream exhibited a weak continuous bed and bank, riffle-pool sequence, and sinuosity while all other geomorphological field indicators were absent. Redoximorphic features were absent within the stream bank soils and the matrix contained a chroma of 4. No benthic macroinvertebrates or amphibians were observed within the reach.

Overall, the stream scored 5 on the Fairfax County Protocol and should not be considered perennial.

CONCLUSIONS

TNT would like to thank you for the opportunity to provide you with this Preservation Area Site Assessment. We look forward to assisting you further with this project and other environmental concerns you may have. If you have any questions, please feel free to contact us at any time at (703) 466-5123.

Sincerely,

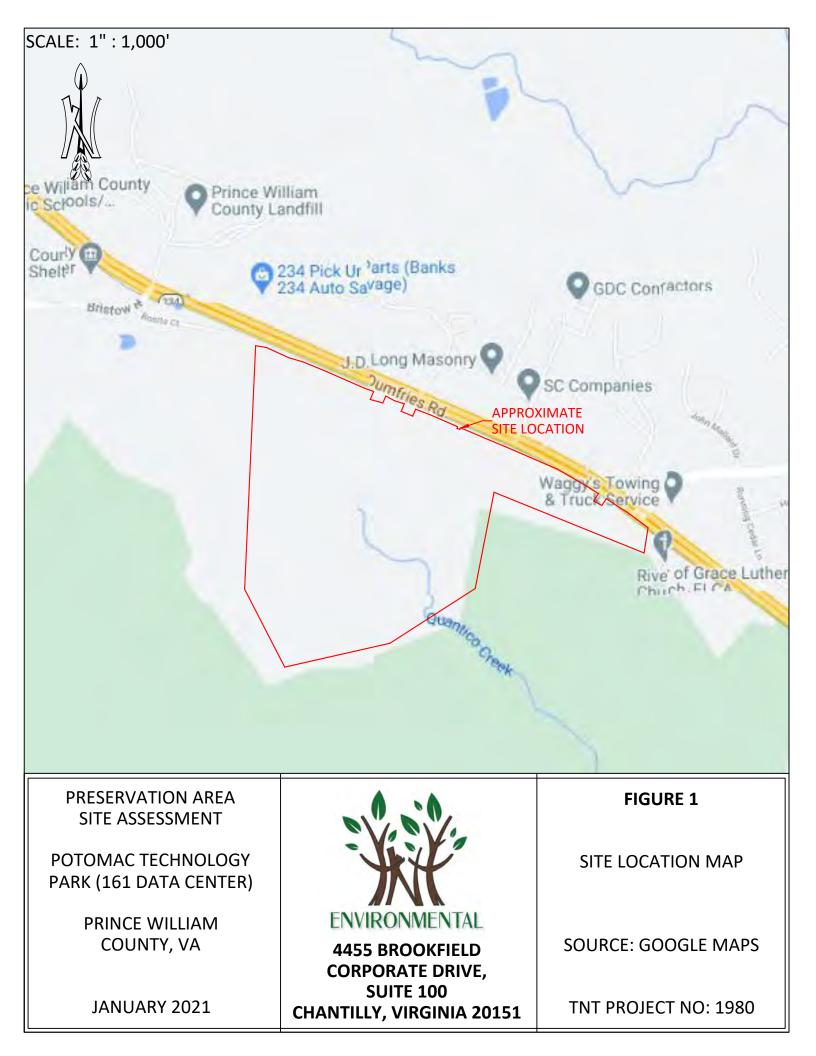
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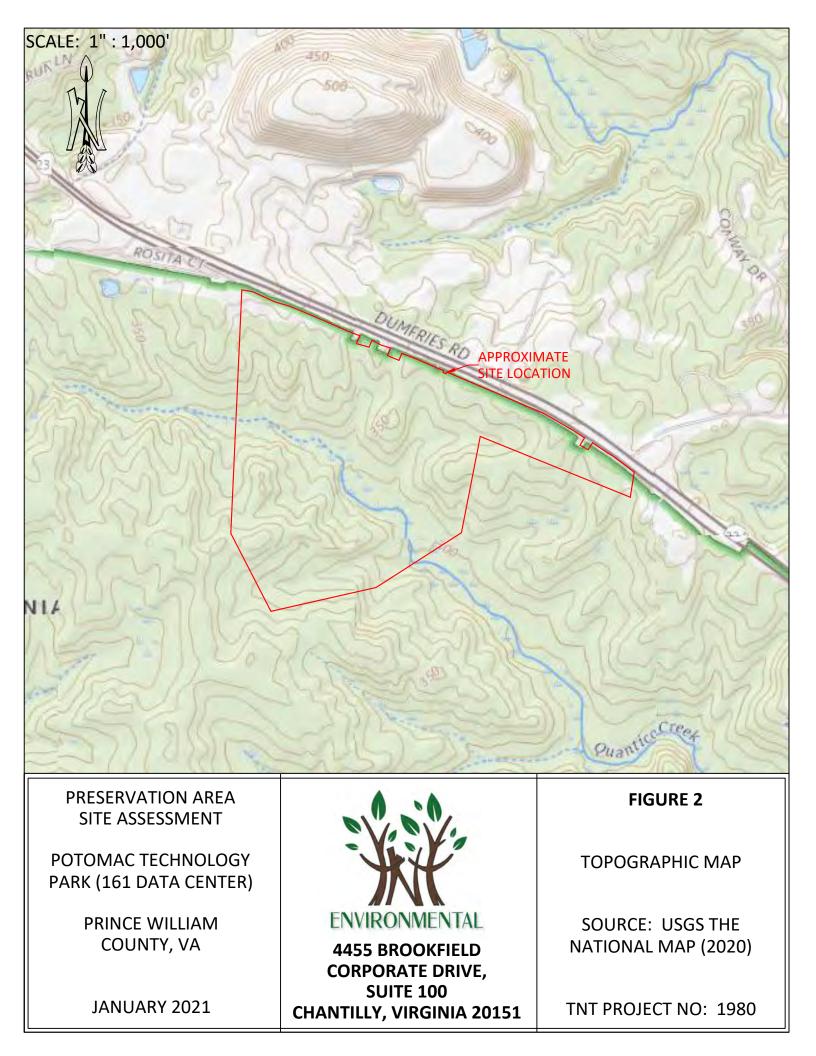
Jillian S. Moore, PWS, PWD, ISA-CA Senior Wetland Scientist Jillian@TNTenvironmentalinc.com

Avi M. Sareen, PWD, PWS, ISA-CA Principal/President Avi@TNTenvironmentalinc.com

APPENDIX I

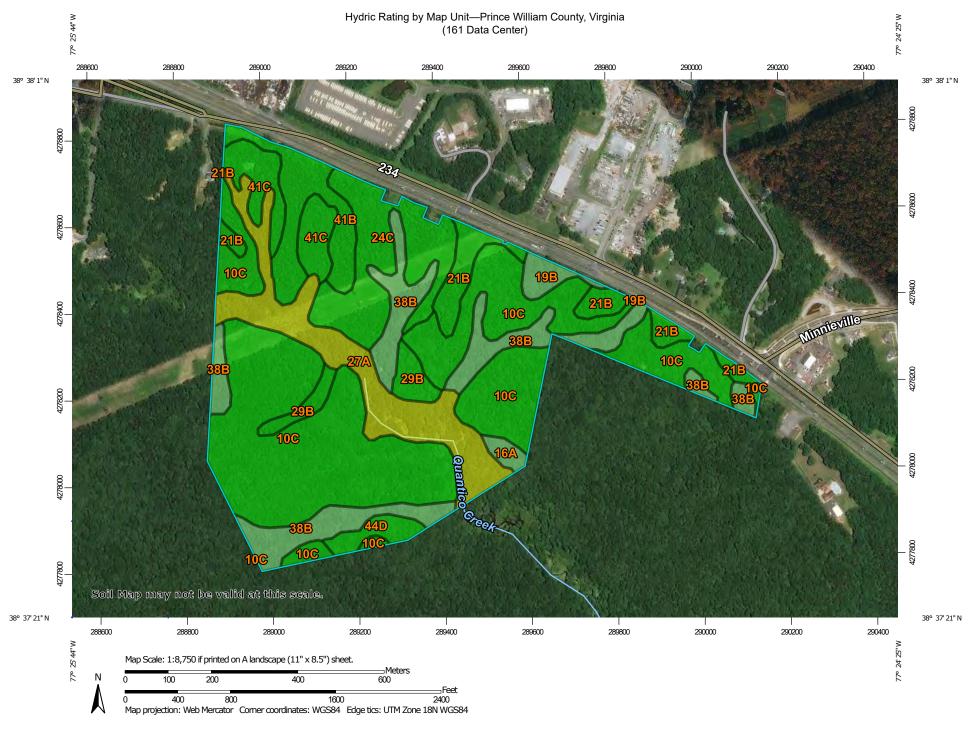
VICINITY MAP & USGS TOPOGRAPHIC MAP





APPENDIX II

NATIONAL WETLAND INVENTORY MAP & NRCS SOILS MAP



USDA Natural Resources

Conservation Service

5/26/2020 Page 1 of 5

Area of Interest (AOI) Area of Interest (AOI)	Transportation +++ Rails	The soil surveys that comprise your AOI were mapped a 1:15,800.
Area of Interest (AOI) Soils Soil Rati-Polygons Hydric (100%) Hydric (66 to 99%) Hydric (33 to 65%) Hydric (1 to 32%) Not Hydric (0%) Not rated or not available Soil Rati-Lines Hydric (66 to 99%) Hydric (100%) Hydric (66 to 99%) Hydric (100%) Hydric (33 to 65%) Hydric (33 to 65%) Hydric (33 to 65%) Hydric (33 to 65%) Hydric (100%) Hydric (100%)	Image: Heal is and the second seco	 Warning: Soil Map may not be valid at this scale. Enlargement of maps beyond the scale of mapping can misunderstanding of the detail of mapping and accuracy line placement. The maps do not show the small areas contrasting soils that could have been shown at a more scale. Please rely on the bar scale on each map sheet for map measurements. Source of Map: Natural Resources Conservation Serv Web Soil Survey URL: Coordinate System: Web Mercator (EPSG:3857) Maps from the Web Soil Survey are based on the Web projection, which preserves direction and shape but dist distance and area. A projection that preserves area, suc Albers equal-area conic projection, should be used if meaccurate calculations of distance or area are required. This product is generated from the USDA-NRCS certifies of the version date(s) listed below. Soil Survey Area: Prince William County, Virginia Survey Area Data: Version 16, Sep 16, 2019 Soil map units are labeled (as space allows) for map sc 1:50,000 or larger. Date(s) aerial images were photographed: Jun 3, 2019 The orthophoto or other base map on which the soil line compiled and digitized probably differs from the backgror imagery displayed on these maps. As a result, some mi shifting of map unit boundaries may be evident.

Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
10C	Buckhall loam, 7 to 15 percent slopes	0	72.0	44.0%
16A	Delanco fine sandy loam, 0 to 4 percent slopes	5	1.2	0.8%
19B	Elioak loam, 2 to 7 percent slopes	3	2.2	1.3%
21B	Fairfax loam, 2 to 7 percent slopes	0	8.1	5.0%
24C	Glenelg-Buckhall complex, 7 to 15 percent slopes	0	15.7	9.6%
27A	Hatboro-Codorus complex, 0 to 2 percent slopes	45	19.6	12.0%
29B	Hoadly loam, 2 to 7 percent slopes	0	4.1	2.5%
38B	Meadowville loam, 0 to 5 percent slopes	3	20.7	12.6%
41B	Neabsco loam, 0 to 7 percent slopes	0	9.8	6.0%
41C	Neabsco loam, 7 to 15 percent slopes	0	7.7	4.7%
44D	Occoquan sandy loam, 7 to 25 percent slopes	0	2.6	1.6%
Totals for Area of Inter	rest		163.8	100.0%

Description

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

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). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States. Federal Register. September 18, 2002. Hydric soils of the United States. Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

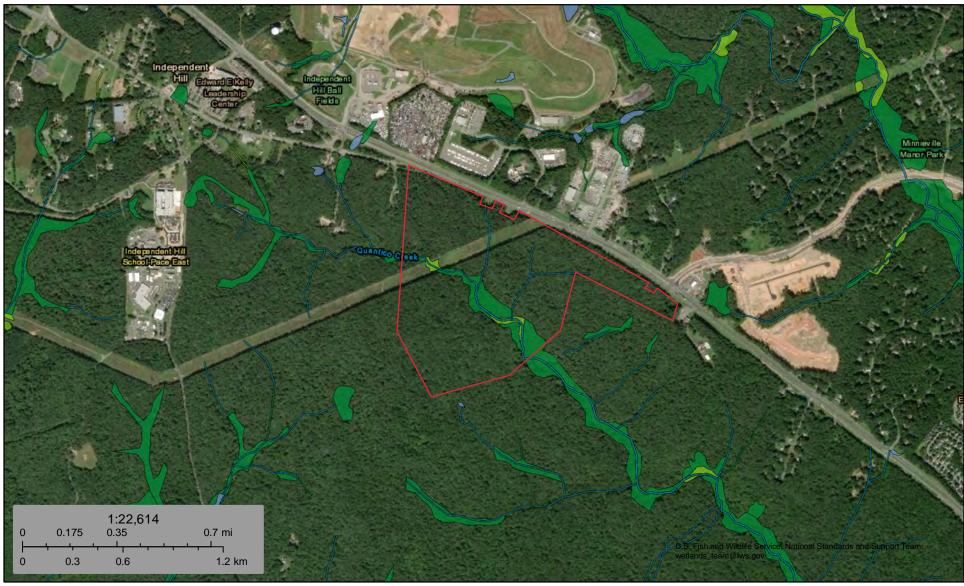
Rating Options

Aggregation Method: Percent Present Component Percent Cutoff: None Specified Tie-break Rule: Lower



U.S. Fish and Wildlife Service **National Wetlands Inventory**

161 Data Center



May 26, 2020

Wetlands

- Estuarine and Marine Wetland

Estuarine and Marine Deepwater

Freshwater Forested/Shrub Wetland

Freshwater Emergent Wetland

Freshwater Pond

Lake Other Riverine This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

APPENDIX III

WETLAND DATA SHEETS

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 161 Data Center	City/County: Prince William County	Sampling Date: 2020-06-02
Applicant/Owner: Land Design Consultants, Inc.	State: Virginia	Sampling Point: DP-1
Investigator(s): J. Moore, S. Swartzendruber	Section, Township, Range:	
Landform (hillslope, terrace, etc.): Depression	cal relief (concave, convex, none): Concave	Slope (%): <u>2</u>
Subregion (LRR or MLRA): <u>S 148</u> Lat: <u>38.639740</u>	DLong:77.4091912	Datum: WGS 84
Soil Map Unit Name: Hatboro-Codorus complex	NWI classific	ation: PFO wetland
Are climatic / hydrologic conditions on the site typical for this time of y	ear? Yes 🖌 No (If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "Normal Circumstances" p	oresent? Yes 🔽 No
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If needed, explain any answe	rs 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 🖌	No No No	Is the Sampled Area within a Wetland?	Yes 🖌	No
Remarks:					
PFO wetland Data Point	1 taken in	side wetland	flag B-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) High Water Table (A2) Hydrogen Sulfide Odor (C1) Saturation (A3) Oxidized Rhizospheres on Living Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) 	Dry-Season Water Table (C2)
Field Observations: Surface Water Present? Yes No Depth (inches): 0 Water Table Present? Yes No Depth (inches): 0 Saturation Present? Yes No Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Remarks:	
Wetland hydrology observed at this Data Point.	

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

Sampling Point: DP-1

00.6	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r)		Species?		Number of Dominant Species
1. Acer rubrum	60	 	FAC	That Are OBL, FACW, or FAC: 7 (A)
2. Ulmus rubra	20	 ✓ 	FAC	Total Number of Dominant
3				Species Across All Strata: 7 (B)
4				
5				Percent of Dominant Species That Are OBL EACW or EAC: 100 (A/B)
				That Are OBL, FACW, or FAC: 100 (A/B)
6	0.0%			Prevalence Index worksheet:
		= Total Cov		Total % Cover of: Multiply by:
50% of total cover: 40	20% of	total cover	. 16	10 10
Sapling Stratum (Plot size: 30 ft r)				
1. Ulmus rubra	10	~	FAC	FACW species $\frac{80}{100}$ x 2 = $\frac{160}{200}$
				FAC species 100 x 3 = 300
2				FACU species 0 x 4 = 0
3				UPL species $0 \times 5 = 0$
4				Column Totals: <u>190</u> (A) <u>470</u> (B)
5			. <u> </u>	
6	<u> </u>		. <u> </u>	Prevalence Index = $B/A = 2.5$
	10%	= Total Cov	/er	Hydrophytic Vegetation Indicators:
For the F				1 - Rapid Test for Hydrophytic Vegetation
50% of total cover: <u>5</u>	20% of	total cover	: <u> </u>	✓ 2 - Dominance Test is >50%
Shrub Stratum (Plot size: 15 ft r)				
1				3 - Prevalence Index is ≤3.0 ¹
2				4 - Morphological Adaptations ¹ (Provide supporting
3				data in Remarks or on a separate sheet)
4				Problematic Hydrophytic Vegetation ¹ (Explain)
5				¹ Indicators of hydric soil and wetland hydrology must
6				be present, unless disturbed or problematic.
		= Total Cov	/er	Definitions of Five Vegetation Strata:
50% of total cover:	20% of	total cover	:	
Herb Stratum (Plot size: 5 ft r)				Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
1. Carex grayi	20	~	FACW	(7.6 cm) or larger in diameter at breast height (DBH).
2. Impatiens capensis	20		FACW	(
3. Juncus effusus	20			Sapling – Woody plants, excluding woody vines,
		~	FACW	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
4. Onoclea sensibilis	20	 ✓ 	FACW	
_{5.} Athyrium angustum	10		FAC	Shrub – Woody plants, excluding woody vines,
6. Sagittaria latifolia	10		OBL	approximately 3 to 20 ft (1 to 6 m) in height.
7				Herb – All herbaceous (non-woody) plants, including
7			·	herbaceous vines, regardless of size, and woody
8			·	plants, except woody vines, less than approximately 3
9			·	ft (1 m) in height.
10				Woody vine All woody vince regardless of height
11			<u> </u>	Woody vine – All woody vines, regardless of height.
	100%	= Total Cov	/er	
50				
50% of total cover: <u>50</u>	20% of	total cover	20	
Woody Vine Stratum (Plot size: 30 ft r)				
1				
2				
3				
4				
5			·	Hydrophytic
		= Total Cov	/er	Vegetation
50% of total cover:	20% of	total cover	: <u> </u>	Present? Yes No
Remarks: (Include photo numbers here or on a separate				1
	,			

Hydrophytic vegetation dominates the Data Point.

SOIL

Sampling Point: DP-1

Profile Desc	ription: (Describe	to the de	pth needed to docun	nent the i	ndicator	or confirm	n the absence of indicators.)
Depth	Matrix			x Features			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks
0 - 5	10YR 5/1	100					Sandy loam
5 - 16	10YR 4/1	95	10YR 5/8	5	С	Μ	Sandy loam
-					_		
-							
-							
-							
-						·	
-							
-							
-		<u> </u>					
¹ Type: C=Co	oncentration, D=Dep	letion, RM	I=Reduced Matrix, MS	S=Masked	Sand Gr	ains.	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil I		,					Indicators for Problematic Hydric Soils ³ :
<u> </u>	(A1)		Dark Surface	(S7)			2 cm Muck (A10) (MLRA 147)
Histic Ep	pipedon (A2)		Polyvalue Be	low Surfa	ce (S8) (N	ILRA 147,	, 148) Coast Prairie Redox (A16)
Black His	stic (A3)		Thin Dark Su	rface (S9)	(MLRA	47, 148)	(MLRA 147, 148)
Hydroge	n Sulfide (A4)		Loamy Gleye				Piedmont Floodplain Soils (F19)
	Layers (A5)		 Depleted Mat 		,		(MLRA 136, 147)
	ck (A10) (LRR N)		Redox Dark S	• •	6)		Very Shallow Dark Surface (TF12)
	Below Dark Surfac	e (A11)	Depleted Dar	•	,		Other (Explain in Remarks)
	ark Surface (A12)	- ()	Redox Depre				<u> </u>
	lucky Mineral (S1) (I	RR N	Iron-Mangan				
	147, 148)	,	MLRA 13		/ (,	
Sandy G	leyed Matrix (S4)		Umbric Surfa	ce (F13) (MLRA 13	6, 122)	³ Indicators of hydrophytic vegetation and
Sandy R	edox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	48) wetland hydrology must be present,
Stripped	Matrix (S6)		Red Parent N	Aaterial (F	21) (MLR	A 127, 147	7) unless disturbed or problematic.
Restrictive L	ayer (if observed):						
Type:							
Depth (inc	ches):						Hydric Soil Present? Yes Vo
Remarks:							
Hydric s	oil observed	at this	s Data Point.				
-							

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 161 Data Center	City/County: Prince William		Sampling Date: 2020-06-02
Applicant/Owner: Land Design Consultants, Inc.		State: Virginia	Sampling Point: DP-2
Investigator(s): J. Moore, S. Swartzendruber	_ Section, Township, Range:		
	ocal relief (concave, convex, non	_{e):} None	Slope (%): 2
Subregion (LRR or MLRA): <u>\$ 148</u> Lat: <u>38.636596</u>	57 Long: -77.	4076744	Datum: WGS 84
Soil Map Unit Name: Occoquan sandy loam		NWI classificat	tion: N/A
Are climatic / hydrologic conditions on the site typical for this time of y	vear? Yes 🖌 No (lf no, explain in Rei	marks.)
Are Vegetation, Soil, or Hydrology significant	y disturbed? Are "Normal	Circumstances" pre	esent? Yes 🔽 No
Are Vegetation, Soil, or Hydrology naturally p	roblematic? (If needed, e	xplain 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	No V No V No V	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					
Upland Data Point 2 tak	en outsid	e wetland fla	g B-15.		

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) High Water Table (A2) Saturation (A3) Oxidized Rhizospheres on Living I Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Recent Iron Reduction in Tilled Sc Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) 	Dry-Season Water Table (C2)
Field Observations: Surface Water Present? Yes No _ Depth (inches): Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) No _ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	Wetland Hydrology Present? Yes No tions), if available:
Remarks: Wetland hydrology was not observed at this Data Poin	t.

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

Sampling Point: DP-2

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r)		Species?		
Acer rubrum	50	~	FAC	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2 Liriodendron tulipifera	50	· · ·	FACU	
		·		Total Number of Dominant
3				Species Across All Strata: 7 (B)
4				
				Percent of Dominant Species That Are OBL_EACW_or_EAC: 43 (A/B)
5		·		That Are OBL, FACW, or FAC: 43 (A/B)
6				Prevalence Index worksheet:
	100%	= Total Cov	er	
50% of total cover: 50	20% of	total cover	20	Total % Cover of: Multiply by:
	20 /8 01			OBL species 20 x 1 = 20
Sapling Stratum (Plot size: 30 ft r)				FACW species 20 x 2 = 40
1				FAC species 60 x 3 = 180
2				EACLI species 95 $x_4 = 380$
3				UPL species 15 x 5 = 75
4		·		Column Totals: <u>210</u> (A) <u>695</u> (B)
5				
6				Prevalence Index = B/A = 3.3
		= Total Cov	or	Hydrophytic Vegetation Indicators:
			01	
50% of total cover:	20% of	total cover		1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 15 ft r)				2 - Dominance Test is >50%
1. Ulmus rubra	10	~	FAC	3 - Prevalence Index is ≤3.0 ¹
2				4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
3				. ,
4				Problematic Hydrophytic Vegetation ¹ (Explain)
5		·		¹ Indicators of hydric soil and wetland hydrology must
6				be present, unless disturbed or problematic.
	10%			
	10/0	= Total Cov	er	Definitions of Five Vegetation Strata:
50% of total cover: 5				Definitions of Five Vegetation Strata:
50% of total cover: <u>5</u>				Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r)	20% of	total cover	2	Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: 5 ft r) 1. Panicum dichotomiflorum				Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r)	20% of	total cover	2	Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
Herb Stratum (Plot size: 5 ft r) 1. Panicum dichotomiflorum 2. Polystichum acrostichoides	20% of 20 20	total cover	2 FACW FACU	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines,
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Panicum dichotomiflorum 2. Polystichum acrostichoides 3. Galium circaezans	20% of 20 20 15	total cover	2 FACW FACU UPL	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
Herb Stratum (Plot size: 5 ft r) 1. Panicum dichotomiflorum 2. Polystichum acrostichoides 3. Galium circaezans 4. Ilex opaca	20% of 20 20 15 15	total cover	2 FACW FACU UPL FACU	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r) 1. Panicum dichotomiflorum 2. Polystichum acrostichoides 3. Galium circaezans	20% of 20 20 15	total cover	2 FACW FACU UPL	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
Herb Stratum (Plot size: 5 ft r 1. Panicum dichotomiflorum 2. Polystichum acrostichoides 3. Galium circaezans 4. Ilex opaca 5. Carex crinita	20% of 20 20 15 15	total cover	2 FACW FACU UPL FACU	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
Herb Stratum (Plot size: 5 ft r) 1. Panicum dichotomiflorum 2. Polystichum acrostichoides 3. Galium circaezans 4. Ilex opaca 5. Carex crinita 6. Carex lurida	20% of 20 20 15 15 10 10	total cover	2 FACW FACU UPL FACU OBL OBL	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
Herb Stratum (Plot size: 5 ft r 1. Panicum dichotomiflorum 2. Polystichum acrostichoides 3. Galium circaezans 4. Ilex opaca 5. Carex crinita 6. Carex lurida 7. Liriodendron tulipifera	20% of 20 20 15 15 10 10 10	total cover	2 FACW FACU UPL FACU OBL	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including
Herb Stratum (Plot size: 5 ft r) 1. Panicum dichotomiflorum 2. Polystichum acrostichoides 3. Galium circaezans 4. Ilex opaca 5. Carex crinita 6. Carex lurida	20% of 20 20 15 15 10 10 10	total cover	2 FACW FACU UPL FACU OBL OBL	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
Herb Stratum (Plot size: 5 ft r) 1. Panicum dichotomiflorum 2. Polystichum acrostichoides 3. Galium circaezans 4. Ilex opaca 5. Carex crinita 6. Carex lurida 7. Liriodendron tulipifera 8.	20% of 20 20 15 15 10 10 10	total cover	2 FACW FACU UPL FACU OBL OBL	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3
Herb Stratum (Plot size: 5 ft r) 1. Panicum dichotomiflorum 2. Polystichum acrostichoides 3. Galium circaezans 4. Ilex opaca 5. Carex crinita 6. Carex lurida 7. Liriodendron tulipifera 8 9	20% of 20 20 15 15 10 10 10	total cover	2 FACW FACU UPL FACU OBL OBL	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
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Herb Stratum (Plot size: 5 ft r) 1. Panicum dichotomiflorum 2. Polystichum acrostichoides 3. Galium circaezans 4. Ilex opaca 5. Carex crinita 6. Carex lurida 7. Liriodendron tulipifera 8. 9. 10. 11. 50% of total cover: 50 Woody Vine Stratum (Plot size: 30 ft r)	20% of 20 20 15 15 10 10 10 10 10 20% of	total cover	2 FACW FACU UPL FACU OBL OBL FACU er 20	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Panicum dichotomiflorum 2. Polystichum acrostichoides 3. Galium circaezans 4. Ilex opaca 5. Carex crinita 6. Carex lurida 7. Liriodendron tulipifera 8	20% of 20 15 15 10 10 10 10 20% of	total cover	2 FACW FACU UPL FACU OBL OBL FACU er 20	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
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Herb Stratum (Plot size: 5 ft r) 1. Panicum dichotomiflorum 2. Polystichum acrostichoides 3. Galium circaezans 4. Ilex opaca 5. Carex crinita 6. Carex lurida 7. Liriodendron tulipifera 8. 9. 10. 11. 50% of total cover: 50 Woody Vine Stratum (Plot size: 30 ft r) 1. 2. 3.	20% of 20 20 15 15 10 10 10 10 20% of 20% of	total cover	2 FACW FACU UPL FACU OBL OBL FACU er 20	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Panicum dichotomiflorum 2. Polystichum acrostichoides 3. Galium circaezans 4. Ilex opaca 5. Carex crinita 6. Carex lurida 7. Liriodendron tulipifera 8	20% of 20 20 15 15 10 10 10 10 20% of 20% of	total cover	2 FACW FACU UPL FACU OBL OBL FACU er 20	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Panicum dichotomiflorum 2. Polystichum acrostichoides 3. Galium circaezans 4. Ilex opaca 5. Carex crinita 6. Carex lurida 7. Liriodendron tulipifera 8. 9. 10. 11. 50% of total cover: 50 Woody Vine Stratum (Plot size: 30 ft r) 1. 2. 3. 4.	20% of 20 20 15 15 10 10 10 10 20% of 20% of	total cover	2 FACW FACU UPL FACU OBL OBL FACU er 20	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
Herb Stratum (Plot size: 5 ft r) 1. Panicum dichotomiflorum 2. Polystichum acrostichoides 3. Galium circaezans 4. Ilex opaca 5. Carex crinita 6. Carex lurida 7. Liriodendron tulipifera 8. 9. 10. 11. 50% of total cover: 50 Woody Vine Stratum (Plot size: 30 ft r) 1. 2. 3.	20% of 20 20 15 15 10 10 10 20% of 20% of	total cover	2 FACW FACU UPL FACU OBL OBL FACU er 20	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height. Hydrophytic
Herb Stratum (Plot size: 5 ft r) 1. Panicum dichotomiflorum 2. Polystichum acrostichoides 3. Galium circaezans 4. Ilex opaca 5. Carex crinita 6. Carex lurida 7. Liriodendron tulipifera 8. 9. 10. 11. 50% of total cover: 50 Woody Vine Stratum (Plot size: 30 ft r) 1. 2. 3. 4. 5.	20% of 20 15 15 10 10 10 10 20% of 	total cover	2 FACW FACU UPL FACU OBL OBL FACU er 20 er	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height. Hydrophytic Vegetation
Herb Stratum (Plot size: 5 ft r) 1. Panicum dichotomiflorum 2. Polystichum acrostichoides 3. Galium circaezans 4. Ilex opaca 5. Carex crinita 6. Carex lurida 7. Liriodendron tulipifera 8	20% of 20 15 15 10 10 10 10 20% of 	total cover	2 FACW FACU UPL FACU OBL OBL FACU er 20 er	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height. Hydrophytic

Hydrophytic vegetation does not dominate this Data Point.

SOIL

Sampling Point: DP-2

Profile Desc	ription: (Describe	to the de	oth needed to docur	nent the i	ndicator	or confirn	n the absence of	indicators.)		
Depth	Matrix		Redo	x Feature	S					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks		
0 - 6	10YR 5/4	100					Silt Loam			
6 - 16	10YR 6/3	85	7.5YR 5/8	15	С	М	Silt Loam			
-										
-										
						·	<u> </u>			
							<u> </u>			
-						·				
-						<u> </u>				
-										
			·							
1 Type: C=C			I=Reduced Matrix, MS	S-Mackar	A Sand Gr		² Location: PL-P	Pore Lining, M=Matrix.		
Hydric Soil I				S=IVIASKED	a Sanu Gi	all 15.		rs for Problematic Hydric Soils ³ :		
Histosol			Dark Surface	(S7)				Muck (A10) (MLRA 147)		
	vipedon (A2)		Polyvalue Be		ce (S8) (I	/LRA 147.		st Prairie Redox (A16)		
Black Hi	• • • •		Thin Dark Su		. , .		·	ILRA 147, 148)		
	n Sulfide (A4)		Loamy Gleye					mont Floodplain Soils (F19)		
Stratified	I Layers (A5)		Depleted Ma	trix (F3)			(M	(MLRA 136, 147)		
2 cm Mu	ck (A10) (LRR N)		Redox Dark	Surface (F	-6)			Shallow Dark Surface (TF12)		
	Below Dark Surfac	e (A11)	Depleted Date				Othe	r (Explain in Remarks)		
	ark Surface (A12)		Redox Depre							
	lucky Mineral (S1) (LRR N,	Iron-Mangan		es (F12) (LRR N,				
	147, 148)		MLRA 13				31.0.01:0.0.0			
	leyed Matrix (S4) edox (S5)		Umbric Surfa					tors of hydrophytic vegetation and nd hydrology must be present,		
	Matrix (S6)		Red Parent N					s disturbed or problematic.		
	ayer (if observed)			naterial (i						
Type:	,	-								
Depth (inc	ches):						Hydric Soil Pre	esent? Yes No 🖌		
Remarks:	,						-			
		I		- - - :						
Hydric s	oll was not c	bserv	ed at this Dat	a Poin	t.					

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 161 Data Center	City/County: Prince William County	Sampling Date: 2020-06-02
Applicant/Owner: Land Design Consultants, Inc.	State: Vi	rginia Sampling Point: DP-3
Investigator(s): J. Moore, S. Swartzendruber	_ Section, Township, Range:	
Landform (hillslope, terrace, etc.): Upland Landform	ocal relief (concave, convex, none): <u>None</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): Lat: 38.627227	8 Long: -77.4254793	Datum: WGS 84
Soil Map Unit Name: Meadowville Ioam	NWI c	lassification: N/A
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes 🖌 No (If no, expla	in in Remarks.)
Are Vegetation, Soil, or Hydrology significant	ly disturbed? Are "Normal Circumstar	nces" present? Yes 🔽 No
Are Vegetation, Soil, or Hydrology naturally p	roblematic? (If needed, explain any a	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	No No No	Is the Sampled Area within a Wetland?	Yes	No 🖌
Remarks:					
Upland Data Point 3 tak	ken outside	e wetland fla	g C-21.		

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) High Water Table (A2) Saturation (A3) Oxidized Rhizospheres on Living F Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Recent Iron Reduction in Tilled So Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) 	Dry-Season Water Table (C2)
Field Observations: Surface Water Present? Yes No _ Depth (inches): Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) No _ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	Wetland Hydrology Present? Yes No ions), if available:
Remarks: Wetland hydrology was not observed at this Data Point	t.

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

Sampling Point: DP-3

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r)		Species?		
1 Fagus grandifolia	40	~	FACU	Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
2. Quercus alba	40	~	FACU	
3. Nyssa sylvatica	20		FAC	Total Number of Dominant
3. Nyssa sylvalica			FAC	Species Across All Strata: <u>4</u> (B)
4				Demonstrat Demoiser
5				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)
6				
0	100%	= Total Cov		Prevalence Index worksheet:
				Total % Cover of: Multiply by:
50% of total cover: 50	20% of	total cover:	20	$\begin{array}{c c} \hline \hline \\ $
Sapling Stratum (Plot size: 30 ft r				
1. Nyssa sylvatica	20	~	FAC	FACW species $\frac{0}{10}$ x 2 = $\frac{0}{100}$
			·	FAC species x 3 =20
2				FACU species <u>80</u> x 4 = <u>320</u>
3				UPL species 0 x 5 = 0
4				100 110
5				Column Totals: 120 (A) 440 (B)
6.				Prevalence Index = B/A = 3.7
0	20%			
	20%	= Total Cov	er	Hydrophytic Vegetation Indicators:
50% of total cover: 10	20% of	total cover:	4	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 15 ft r)				2 - Dominance Test is >50%
				3 - Prevalence Index is ≤3.0 ¹
1				
2				4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
3				
4				Problematic Hydrophytic Vegetation ¹ (Explain)
5				¹ Indicators of hydric soil and wetland hydrology must
6				be present, unless disturbed or problematic.
		= Total Cov	er	Definitions of Five Vegetation Strata:
50% of total cover:	20% of	total cover		, i i i i i i i i i i i i i i i i i i i
	20/0 01			Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r)				approximately 20 ft (6 m) or more in height and 3 in.
1				(7.6 cm) or larger in diameter at breast height (DBH).
2				Sapling – Woody plants, excluding woody vines,
3				approximately 20 ft (6 m) or more in height and less
4				than 3 in. (7.6 cm) DBH.
4				
5				Shrub – Woody plants, excluding woody vines,
6				approximately 3 to 20 ft (1 to 6 m) in height.
7				Herb – All herbaceous (non-woody) plants, including
8				herbaceous vines, regardless of size, and woody
				plants, except woody vines, less than approximately 3
9				ft (1 m) in height.
10				Woody vine – All woody vines, regardless of height.
11				Woody ville – All woody villes, regardless of height.
		= Total Cov	er	
50% of total cover:	20% of	total cover:		
Woody Vine Stratum (Plot size: 30 ft r)				
1				
2				
3			. <u> </u>	
4				
5				the described's
		= Total Cov		Hydrophytic Vegetation
				Present? Yes No
50% of total cover:	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate	sheet.)			

Hydrophytic vegetation does not dominate this Data Point.

SOIL

Profile Desc	Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix			x Feature	es				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0 - 10	10YR 6/3	90	10YR 6/8	10	С	М	Silty clay loam		
10 - 16	10YR 5/1	80	7.5YR 5/8	20	С	М	Silty clay loam		
-									
						·			
						·			
-									
-									
-									
-									
						·			
						·			
-									
		pletion, RM	I=Reduced Matrix, M	S=Maske	d Sand Gr	ains.		PL=Pore Lining, M=Matrix.	
Hydric Soil I								cators for Problematic Hydric Soils ³ :	
Histosol	()		Dark Surface					2 cm Muck (A10) (MLRA 147)	
	ipedon (A2)		Polyvalue Be		• • •		, 148)	Coast Prairie Redox (A16)	
Black Hi	stic (A3) n Sulfide (A4)		Thin Dark Su Loamy Gleye	•	<i>,</i> .	147, 148)		(MLRA 147, 148) Piedmont Floodplain Soils (F19)	
	I Layers (A5)		Loany Gleye		(Г2)			(MLRA 136, 147)	
	ck (A10) (LRR N)		Redox Dark	. ,	F6)			Very Shallow Dark Surface (TF12)	
	Below Dark Surfac	e (A11)	Depleted Da		,			Other (Explain in Remarks)	
Thick Da	irk Surface (A12)		Redox Depre	essions (F	-8)				
Sandy M	lucky Mineral (S1) (LRR N,	Iron-Mangan	ese Mass	ses (F12) (LRR N,			
	. 147, 148)		MLRA 13	,					
	leyed Matrix (S4)		Umbric Surfa	. ,	•			dicators of hydrophytic vegetation and	
	edox (S5)		Piedmont Flo	•	. ,	•		vetland hydrology must be present,	
	Matrix (S6)		Red Parent N	Material (I	-21) (MLR	A 127, 14	7) u	nless disturbed or problematic.	
	ayer (if observed)	:							
Type:									
Depth (inc	ches):						Hydric So	il Present? Yes <u>V</u> No	
Remarks:									
Hydric s	oil was obse	erved a	it this Data Po	oint.					

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 161 Data Center	City/County: Prince William County	Sampling Date: 2020-06-02
Applicant/Owner: Land Design Consultants, Inc.	State: Virg	jinia Sampling Point: DP-4
Investigator(s): J. Moore, S. Swartzendruber	Section, Township, Range:	
Landform (hillslope, terrace, etc.): Depression	cal relief (concave, convex, none): Concav	e Slope (%): 2
Subregion (LRR or MLRA): <u>S 148</u> Lat: <u>38.628234</u>	9 Long: -77.4254854	Datum: WGS 84
Soil Map Unit Name: Occoquan sandy loam	NWI clas	ssification: N/A
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes 🖌 No (If no, explain	in Remarks.)
Are Vegetation, Soil, or Hydrology significantly	v disturbed? Are "Normal Circumstance	es" present? Yes 🗹 No
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If needed, explain any an	swers 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 <u>✓</u> Yes <u>✓</u> Yes <u>✓</u>	No No No	Is the Sampled Area within a Wetland?	Yes 🖌	No
Remarks:					
PEM wetland Data Point	4 taken ir	nside wetland	d flag C-13.		

HYDROLOGY

Wetland Hydrology Indicators: S	econdary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	_ Surface Soil Cracks (B6)
✓ Surface Water (A1) True Aquatic Plants (B14) ✓ High Water Table (A2) Hydrogen Sulfide Odor (C1) ✓ Saturation (A3) Oxidized Rhizospheres on Living Roots (C3)	_ Sparsely Vegetated Concave Surface (B8) _ Drainage Patterns (B10) _ Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Vater-Stained Leaves (B9) Aquatic Fauna (B13)	 Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes No Depth (inches): 0.3 Water Table Present? Yes No Depth (inches): 0 Wetland Hyer Saturation Present? Yes No Depth (inches): 0 Wetland Hyer Cincludes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if availary	drology Present? Yes <u> No</u> No
Remarks: Wetland hydrology was observed at this Data Point.	

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

Sampling Point: DP-4

00 th m	Absolute	Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: _30 ft r) 1)	% Cover			Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2				Total Number of Dominant
3				Species Across All Strata: <u>3</u> (B)
4				Percent of Dominant Species
5 6				That Are OBL, FACW, or FAC: 100 (A/B)
0	=			Prevalence Index worksheet:
E0% of total cover:				Total % Cover of: Multiply by:
50% of total cover: Sapling Stratum (Plot size: 30 ft r)	20% 01	total cover.		OBL species 75 x 1 = 75
Sapling Stratum (Plot size: _30 ft f 1)				FACW species $\frac{40}{12}$ x 2 = $\frac{80}{12}$
				FAC species $\frac{15}{2}$ x 3 = $\frac{45}{2}$
2				FACU species 0 x 4 = 0
3				UPL species $0 \times 5 = 0$
4 5				Column Totals: <u>130</u> (A) <u>200</u> (B)
6				Prevalence Index = B/A = <u>1.5</u>
	=	= Total Cov	er	Hydrophytic Vegetation Indicators:
50% of total cover:	20% of	total cover:		✓ 1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 15 ft r)				2 - Dominance Test is >50%
1. Fraxinus pennsylvanica	20	~	FACW	3 - Prevalence Index is ≤3.0 ¹
2				4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
3				Problematic Hydrophytic Vegetation ¹ (Explain)
4				
5				¹ Indicators of hydric soil and wetland hydrology must
6				be present, unless disturbed or problematic.
	20% =	= Total Cov	er	Definitions of Five Vegetation Strata:
50% of total cover: <u>10</u>	20% of	total cover:	4	
Herb Stratum (Plot size: 5 ft r)				Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
1. Carex crinita	30	~	OBL	(7.6 cm) or larger in diameter at breast height (DBH).
2. Carex lurida	25	~	OBL	Sapling – Woody plants, excluding woody vines,
_{3.} Onoclea sensibilis	20		FACW	approximately 20 ft (6 m) or more in height and less
4. Scirpus atrovirens	20		OBL	than 3 in. (7.6 cm) DBH.
5. Acer rubrum	15		FAC	Shrub – Woody plants, excluding woody vines,
6				approximately 3 to 20 ft (1 to 6 m) in height.
7				Herb - All herbaceous (non-woody) plants, including
8				herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3
9				ft (1 m) in height.
10				
11				Woody vine - All woody vines regardless of height
				Woody vine – All woody vines, regardless of height.
		= Total Cov		Woody vine – All woody vines, regardless of height.
50% of total cover: <u>55</u>	110% =	= Total Cov	er	Woody vine – All woody vines, regardless of height.
	110% =	= Total Cov	er	Woody vine – All woody vines, regardless of height.
50% of total cover: <u>55</u> <u>Woody Vine Stratum</u> (Plot size: <u>30 ft r</u>) 1	<u>110%</u> = 20% of	= Total Cov total cover:	er 22	Woody vine – All woody vines, regardless of height.
Woody Vine Stratum (Plot size: 30 ft r)	<u>110%</u> = 20% of	= Total Cov total cover:	er 22	Woody vine – All woody vines, regardless of height.
Woody Vine Stratum (Plot size: 30 ft r)	<u>110%</u> = 20% of	= Total Cov total cover:	er 22	Woody vine – All woody vines, regardless of height.
Woody Vine Stratum (Plot size: 30 ft r) 1	<u>110%</u> = 20% of	= Total Cov total cover:	er 22	Woody vine – All woody vines, regardless of height.
Woody Vine Stratum (Plot size: 30 ft r) 1 2 3 3	<u>110%</u> = 20% of	Total Cov total cover:	er 22	
Woody Vine Stratum (Plot size: 30 ft r) 1	20% of	Total Cov total cover:	er 22	Hydrophytic Vegetation
Woody Vine Stratum (Plot size: 30 ft r) 1	<u>110%</u> = 20% of 	= Total Cov total cover:	er 22 er	Hydrophytic

Hydrophytic vegetation dominates this Data Point.

Profile Desc	ription: (Describe	to the dept	h needed to docun	nent the i	ndicator	or confirr	m the absence of indicators.)	
Depth	Matrix			k Feature				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks	
0 - 16	10YR 6/1	85	7.5YR 5/8	15	С	М	Silty clay loam	
-								
·		·				·		
-						·		
-								
-								
		·				·	- <u>-</u>	
		·				·		
-		·						
-								
-								
		lation DM	Deduced Metrix MC	Maakaa			² Location: DL Data Lining M Matrix	
Hydric Soil	oncentration, D=Dep	ielion, Rivi=	Reduced Matrix, Ma	S=IVIASKec	i Sand Gr	ains.	² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils	3.
Histosol			Dark Surface	(97)			2 cm Muck (A10) (MLRA 147)	-
	pipedon (A2)		Polyvalue Be	. ,	ce (S8) (N	/I RA 147		
Black Hi			Thin Dark Su					
	n Sulfide (A4)		Loamy Gleye		•	,,	Piedmont Floodplain Soils (F19)	
	Layers (A5)		Depleted Mat		,		(MLRA 136, 147)	
2 cm Mu	ick (A10) (LRR N)		Redox Dark S	Surface (F	⁻ 6)		Very Shallow Dark Surface (TF12)	
Depleted	Below Dark Surfac	e (A11)	Depleted Dar	k Surface	(F7)		Other (Explain in Remarks)	
Thick Da	ark Surface (A12)		Redox Depre	ssions (F	8)			
	lucky Mineral (S1) (I	_RR N,	Iron-Mangane		es (F12) (LRR N,		
	A 147, 148)		MLRA 13	,			2	
	ileyed Matrix (S4)		Umbric Surfa				³ Indicators of hydrophytic vegetation and	t
	edox (S5)		Piedmont Flo	•	. ,	•	,	
	Matrix (S6)		Red Parent M	laterial (F	21) (MLR	A 127, 14	(7) unless disturbed or problematic.	
	_ayer (if observed):							
Туре:								
Depth (ind	ches):						Hydric Soil Present? Yes V No	
Remarks:								

Hydric soil observed at this Data Point.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 161 Data Center	City/County: Prince William County	Sampling Date: 2020-06-02
Applicant/Owner: Land Design Consultants, Inc.	State: Virginia	_ Sampling Point: DP-5
Investigator(s): J. Moore, S. Swartzendruber	_ Section, Township, Range:	
Landform (hillslope, terrace, etc.): Floodplain	ocal relief (concave, convex, none): <u>None</u>	Slope (%): 2
Subregion (LRR or MLRA): <u>\$148</u> Lat: <u>38.635528</u>	6 Long: -77.4013152	Datum: WGS 84
Soil Map Unit Name: Hatboro-Codorus complex	NWI classifica	ation: PFO wetland
Are climatic / hydrologic conditions on the site typical for this time of y	/ear? Yes 🖌 No (If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hydrology significant	y disturbed? Are "Normal Circumstances" p	resent? Yes 🔽 No
Are Vegetation, Soil, or Hydrology naturally p	roblematic? (If needed, explain any answer	s 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 🖌	No No No	Is the Sampled Area within a Wetland?	Yes 🖌	No
Remarks:			·		
PFO wetland Data Point	5 taken in	iside wetland	l flag D-8.		

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) High Water Table (A2) Hydrogen Sulfide Odor (C1) Saturation (A3) Oxidized Rhizospheres on Living R Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Recent Iron Reduction in Tilled So Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) 	Dry-Season Water Table (C2)
Field Observations:	
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes No
Saturation Present? Yes <u>Ves</u> No Depth (inches): <u>0</u> (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	
(includes capillary fringe)	

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

Sampling Point: DP-5

00.6	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>30 ft r</u>)		Species?		Number of Dominant Species
1. Acer rubrum	80	 ✓ 	FAC	That Are OBL, FACW, or FAC: 6 (A)
_{2.} Fagus grandifolia	20	 ✓ 	FACU	Total Number of Dominant
3				Species Across All Strata: 7 (B)
4				
				Percent of Dominant Species
5			·	That Are OBL, FACW, or FAC: 86 (A/B)
6	10.0%		·	Prevalence Index worksheet:
	100%	= Total Cov	ver	Total % Cover of: Multiply by:
50% of total cover: 50	20% of	total cover	20	
Sapling Stratum (Plot size: 30 ft r)				
1. Carpinus caroliniana	30	~	FAC	
2				FAC species 120 x 3 = 360
2				FACU species 20 x 4 = 80
3				UPL species 0 x 5 = 0
4				Column Totals: 230 (A) 570 (B)
5				(-)
6				Prevalence Index = $B/A = 2.5$
	30%	= Total Cov	ver	Hydrophytic Vegetation Indicators:
1E				1 - Rapid Test for Hydrophytic Vegetation
50% of total cover: <u>15</u>	20% of	total cover	0	
Shrub Stratum (Plot size: 15 ft r)				✓ 2 - Dominance Test is >50%
1				3 - Prevalence Index is ≤3.0 ¹
2				4 - Morphological Adaptations ¹ (Provide supporting
3				data in Remarks or on a separate sheet)
4				Problematic Hydrophytic Vegetation ¹ (Explain)
5			·	¹ Indicators of hydric soil and wetland hydrology must
6			·	be present, unless disturbed or problematic.
		= Total Cov	ver	Definitions of Five Vegetation Strata:
50% of total cover:	20% of	total cover		
Herb Stratum (Plot size: 5 ft r)				Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
1 Carex Iurida	30	~	OBL	(7.6 cm) or larger in diameter at breast height (DBH).
2. Carex crinita	20	~	OBL	
	20			Sapling – Woody plants, excluding woody vines,
3. Carex grayi		 ✓ 	FACW	approximately 20 ft (6 m) or more in height and less
4. Onoclea sensibilis	20	~	FACW	than 3 in. (7.6 cm) DBH.
_{5.} Liquidambar styraciflua	10		FAC	Shrub – Woody plants, excluding woody vines,
6				approximately 3 to 20 ft (1 to 6 m) in height.
				Hark All borbossous (non-woody) planta including
7			·	Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
8				plants, except woody vines, less than approximately 3
9				ft (1 m) in height.
10				Weedwine Allwoodwines recordloss of height
11			. <u> </u>	Woody vine – All woody vines, regardless of height.
	100%	= Total Cov	ver	
50				
50% of total cover: <u>50</u>	20% of	total cover		
Woody Vine Stratum (Plot size: 30 ft r)				
1				
2				
3				
4				
5				Hydrophytic
		= Total Cov	ver	Vegetation
50% of total cover:	20% of	total cover		Present? Yes <u>V</u> No
Remarks: (Include photo numbers here or on a separate				
	sneeri			

Hydrophytic vegetation dominates this Data Point.

SOIL

Profile Desc	ription: (Describe	to the de	pth needed to docur	nent the	indicator	or confirr	n the absence c	f indicators.)	
Depth	Matrix			x Feature					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0 - 6	10YR 4/2	90	7.5YR 5/8	10	C	М	Silty clay loam		
6 - 16	10YR 6/2	80	10YR 5/8	20	С	М	Silty clay loam		
-		_							
						·			
							<u> </u>		
-						·	· ·		
-					<u> </u>				
-									
-					<u> </u>				
						·			
					<u> </u>	·	<u> </u>		
-					. . <u> </u>	·			
		oletion, RN	I=Reduced Matrix, M	S=Maske	d Sand Gr	ains.		=Pore Lining, M=Matrix.	
Hydric Soil								ors for Problematic Hydric So	oils":
Histosol	()		Dark Surface	. ,	(m Muck (A10) (MLRA 147)	
	pipedon (A2)		Polyvalue Be				· · <u> </u>	ast Prairie Redox (A16)	
Black Hi	()		Thin Dark Su		<i>,</i> .	147, 148)		(MLRA 147, 148)	
	n Sulfide (A4) Layers (A5)		Loamy Gleye		(FZ)			dmont Floodplain Soils (F19) (MLRA 136, 147)	
	ick (A10) (LRR N)		Redox Dark	. ,	E6)			ry Shallow Dark Surface (TF12)	
	d Below Dark Surfac	ce (A11)	Depleted Da	•	,			ner (Explain in Remarks)	
-	ark Surface (A12)		Redox Depre						
	lucky Mineral (S1) (LRR N.	Iron-Mangan	•	,	LRR N.			
	A 147, 148)	,	MLRA 13			,			
	Bleyed Matrix (S4)		Umbric Surfa		(MLRA 13	6, 122)	³ Indic	ators of hydrophytic vegetation	and
	edox (S5)		Piedmont Flo	, ,	•			and hydrology must be present,	
-	Matrix (S6)		Red Parent	Aaterial (I	=21) (MLR	A 127, 14	7) unle	ss disturbed or problematic.	
Restrictive I	_ayer (if observed)	:							
Туре:									
Depth (ind	ches):						Hydric Soil F	Present? Yes 🖌 No _	
Remarks:									
Hydric s	oil was obse	erved a	t this Data Po	oint.					

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 161 Data Center	City/County: Prince William County	Sampling Date: 2020-06-02
Applicant/Owner: Land Design Consultants, Inc.	State: Virginia	Sampling Point: DP-6
Investigator(s): J. Moore, S. Swartzendruber	Section, Township, Range:	
	ocal relief (concave, convex, none): Undulating	Slope (%): <u>2</u>
Subregion (LRR or MLRA): <u>S 148</u> Lat: <u>38.628479</u>	DLong:77.4247908	Datum: WGS 84
Soil Map Unit Name: Buckhall Ioam	NWI classific	ation: PFO wetland
Are climatic / hydrologic conditions on the site typical for this time of y	ear? Yes 🖌 No (If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology significantly	v disturbed? Are "Normal Circumstances" p	oresent? Yes 🔽 No
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If needed, explain any answe	rs 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 🖌	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					
Upland Data Point 6 take	en outside	e wetland flag	g D-1.		

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)
	 Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Drainage Patterns (B16) Moss Trim Lines (B16) Dry-Season Water Table (C2) Tilled Soils (C6) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
Aquatic Fauna (B13) Field Observations:	FAC-Neutral Test (D5)
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) No No Depth (inches):	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previou	is inspections), if available:

Sampling Point: DP-6

00.6	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r)		Species?		Number of Dominant Species
_{1.} Fagus grandifolia	60	~	FACU	That Are OBL, FACW, or FAC: 1 (A)
2. Acer rubrum	40	~	FAC	Total Number of Dominant
3				Total Number of Dominant Species Across All Strata: (B)
4				
				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: <u>50</u> (A/B)
6	4000/			Prevalence Index worksheet:
	100%	= Total Cov	er	
50% of total cover: <u>50</u>	20% of	total cover:	20	Total % Cover of: Multiply by:
Sapling Stratum (Plot size: 30 ft r)			·	OBL species $\frac{0}{2}$ x 1 = 0
				FACW species 0 x 2 = 0
1				FAC species <u>42</u> x 3 = <u>126</u>
2				FACU species 60 x 4 = 240
3				UPL species 0 x 5 = 0
4				100 000
5				Column Totals: 102 (A) 366 (B)
6				Prevalence Index = B/A =3.6
		= Total Cov		Hydrophytic Vegetation Indicators:
50% of total cover:	20% of	total cover:		1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 15 ft r)				2 - Dominance Test is >50%
1				3 - Prevalence Index is ≤3.0 ¹
2				4 - Morphological Adaptations ¹ (Provide supporting
				data in Remarks or on a separate sheet)
3				Problematic Hydrophytic Vegetation ¹ (Explain)
4				
5				¹ Indicators of hydric soil and wetland hydrology must
6				be present, unless disturbed or problematic.
	:	= Total Cov	er	Definitions of Five Vegetation Strata:
50% of total cover:	20% of	total covor		
	20% 01			Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r)				approximately 20 ft (6 m) or more in height and 3 in.
1				(7.6 cm) or larger in diameter at breast height (DBH).
2				Sapling – Woody plants, excluding woody vines,
3				approximately 20 ft (6 m) or more in height and less
4				than 3 in. (7.6 cm) DBH.
				Shrub – Woody plants, excluding woody vines,
				approximately 3 to 20 ft (1 to 6 m) in height.
6				
7				Herb – All herbaceous (non-woody) plants, including
8				herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3
9				ft (1 m) in height.
10				
11.				Woody vine – All woody vines, regardless of height.
		= Total Cov		
			er	
50% of total cover:	20% of	total cover:		
Woody Vine Stratum (Plot size: 30 ft r)				
1. Smilax rotundifolia	2		FAC	
2				
3				
4				
5				Hydrophytic
		= Total Cov	er	Vegetation
E00/ - f +-+ 1				Present? Yes No
50% of total cover: <u>1</u>		ioial cover:		
Remarks: (Include photo numbers here or on a separate	sneet.)			

Hydrophytic vegetation does not dominate this Data Point.

Profile Desc	ription: (Describe	to the dep	oth needed to docum	nent the	indicator	or confirm	n the absence of i	ndicators.)	
Depth	Matrix			x Feature					
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0 - 12	10YR 5/1	85	7.5YR 4/6	15	<u>C</u>	Μ	Silty clay loam		
12 - 16	10YR 6/1	90	10YR 5/8	10	С	М	Silty clay loam		
-									
-									
		·							
		·							
-					<u> </u>				
-		·			<u> </u>	<u> </u>			
-									
-		·							
		·							
1						·	2		
Type: C=Co Hydric Soil I		letion, RM	=Reduced Matrix, MS	S=Maske	d Sand Gr	ains.		ore Lining, M=Matrix. s for Problematic Hy	dria Saila ³ ,
,			Ded. Outland	(07)				•	
— Histosol Histic En	(A1) vipedon (A2)		Dark Surface Polyvalue Be	· ,	000 (58) /			Muck (A10) (MLRA 1 4 t Prairie Redox (A16)	+/)
Black His			Thin Dark Su		• • •		· · <u> </u>	LRA 147, 148)	
	n Sulfide (A4)		Loamy Gleye	•	, .	147, 140)	•	nont Floodplain Soils (F19)
	Layers (A5)		 Depleted Mar 		()			LRA 136, 147)	- /
2 cm Mu	ck (A10) (LRR N)		Redox Dark	Surface (F6)		Very	Shallow Dark Surface	(TF12)
	Below Dark Surfac	e (A11)	Depleted Dar				Other	r (Explain in Remarks)	
	ark Surface (A12)		Redox Depre						
	lucky Mineral (S1) (I	.RR N,	Iron-Mangan		ses (F12) (LRR N,			
	147, 148)		MLRA 13	•		0. 400)	31.0.01:0.0.1		station and
	leyed Matrix (S4) edox (S5)		Umbric Surfa					ors of hydrophytic veg d hydrology must be p	
	Matrix (S6)		Red Parent N	•	• • •	•		disturbed or problema	
	ayer (if observed):			iatoriai (i	21) (1121)				
Type:	, (,-								
Depth (inc	ches):						Hydric Soil Pre	sent?Yes 🖌	No
Remarks:	····,·								

Hydric soil observed at this Data Point.

Project/Site: 161 Data Center	_ City/County: Prince William County	Sampling Date: 2020-06-02
Applicant/Owner: Land Design Consultants, Inc.	State: Virginia	Sampling Point: DP-7
Investigator(s): J. Moore, S. Swartzendruber	_ Section, Township, Range:	
Landform (hillslope, terrace, etc.): Hillslope	ocal relief (concave, convex, none): <u>Convex</u>	Slope (%): 10
Subregion (LRR or MLRA): <u>\$ 148</u> Lat: <u>38.636047</u>	²⁴ Long: <u>-77.4087238</u>	Datum: WGS 84
Soil Map Unit Name: Hatboro-Codorus complex	NWI classifica	tion: N/A
Are climatic / hydrologic conditions on the site typical for this time of y	vear? Yes 🖌 No (If no, explain in Re	marks.)
Are Vegetation, Soil, or Hydrology significant	y disturbed? Are "Normal Circumstances" pro	esent? Yes 🔽 No
Are Vegetation, Soil, or Hydrology naturally p	roblematic? (If needed, explain 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	No No No	Is the Sampled Area within a Wetland?	Yes	No 🖌			
Remarks:								
Upland Data Point 7 taken outside wetland flag DA-1.								

Sampling Point: DP-7

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r)		Species?		Number of Dominant Species
1				That Are OBL, FACW, or FAC: 2 (A)
2				
3				Total Number of Dominant Species Across All Strata: <u>4</u> (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: <u>50</u> (A/B)
6			·	Prevalence Index worksheet:
		= Total Cov	/er	Total % Cover of: Multiply by:
50% of total cover:	20% of	total cover		
Sapling Stratum (Plot size: 30 ft r)				OBL species $\frac{0}{0}$ $x_1 = \frac{0}{0}$
1,				FACW species $\frac{0}{70}$ x 2 = $\frac{0}{010}$
				FAC species $\frac{70}{10}$ x 3 = 210
2				FACU species 50 x 4 = 200
3				UPL species 0 x 5 = 0
4				Column Totals: <u>120</u> (A) <u>410</u> (B)
5			·	
6				Prevalence Index = B/A = 3.4
	:	= Total Cov	/er	Hydrophytic Vegetation Indicators:
50% of total cover:	20% of	total cover		 1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 15 ft r)	2070 01			2 - Dominance Test is >50%
				$_$ 3 - Prevalence Index is $\leq 3.0^{1}$
1				4 - Morphological Adaptations ¹ (Provide supporting
2				data in Remarks or on a separate sheet)
3				Problematic Hydrophytic Vegetation ¹ (Explain)
4				
5				1
6				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
		= Total Cov	/er	
				Definitions of Five Vegetation Strata:
50% of total cover:	20% of	total cover	·	Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r)	00			approximately 20 ft (6 m) or more in height and 3 in.
1. Athyrium angustum	20	~	FAC	(7.6 cm) or larger in diameter at breast height (DBH).
2. Rosa multiflora	20	~	FACU	Sapling – Woody plants, excluding woody vines,
3				approximately 20 ft (6 m) or more in height and less
4				than 3 in. (7.6 cm) DBH.
5.				Shrub – Woody plants, excluding woody vines,
6				approximately 3 to 20 ft (1 to 6 m) in height.
7				Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
8			·	plants, except woody vines, less than approximately 3
9			·	ft (1 m) in height.
10			. <u> </u>	Woody vine – All woody vines, regardless of height.
11				The star woody vines, regulated of height.
	40%	= Total Cov	/er	
50% of total cover: <u>20</u>	20% of	total cover	. 8	
Woody Vine Stratum (Plot size: <u>30 ft r</u>)	2070 01		·	
1 Rubus idaeus	50		FAC	
••	30	~		
2. Vaccinium simulatum			FACU	
3			. <u> </u>	
4				
5				Hudronhutio
		= Total Cov	/er	Hydrophytic Vegetation
50% of total across 10				
	200/ ~4			Present? Yes No
50% of total cover: 40 Remarks: (Include photo numbers here or on a separate	20% of			

Hydrophytic vegetation does not dominate this Data Point.

Profile Desc	ription: (Describe	to the depth	n needed to docum	nent the indic	ator or confir	m the absence	e of indicato	rs.)	
Depth	Matrix			Features	1 . 2				
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u> Ty	pe ¹ Loc ²	Texture	·	Remarks	
0 - 6	10YR 5/4	100				Silt Loam			
-									
-						_			
		· ·							
		·							
-									
-		·					·		
			<u> </u>						
		·		<u> </u>			·		
-							·		
	oncentration, D=Dep	letion, RM=F	Reduced Matrix, MS	=Masked San	d Grains.			ng, M=Matrix.	
Hydric Soil I	ndicators:					Indic	ators for Pr	oblematic Hy	dric Soils ³ :
Histosol	(A1)		Dark Surface	(S7)		2	2 cm Muck (A	(10) (MLRA 1	47)
·	ipedon (A2)			ow Surface (S	, ,			Redox (A16)	
Black His	. ,			rface (S9) (ML	RA 147, 148)		(MLRA 14		
	n Sulfide (A4)		Loamy Gleye	()		F		odplain Soils	(F19)
	Layers (A5)		Depleted Mat	. ,		,	(MLRA 13		
	ck (A10) (LRR N) I Below Dark Surfac	o (A11)	Redox Dark S	k Surface (F6)				Dark Surface n in Remarks	
	irk Surface (A12)		Redox Depre	()		_ `			,
	lucky Mineral (S1) (I	_RR N.		ese Masses (F	12) (LRR N.				
	147, 148)	,	MLRA 136		, (,				
	leyed Matrix (S4)			, ce (F13) (MLR	A 136, 122)	³ Inc	dicators of hy	drophytic veg	etation and
Sandy R	edox (S5)		Piedmont Flo	odplain Soils (F19) (MLRA 1	148) we	etland hydrol	ogy must be	present,
Stripped	Matrix (S6)		Red Parent M	laterial (F21) (MLRA 127, 14	47) ur	nless disturbe	ed or problem	atic.
	ayer (if observed):								
Type: Ro	ck								
Depth (inc	hes): <u>6</u>					Hydric Soi	I Present?	Yes	No 🖌
Remarks:						1			
	••								

Hydric soil was not observed at this Data Point.

Project/Site: 161 Data Center	City/County: Prince William County	Sampling Date: 2020-06-02
Applicant/Owner: Land Design Consultants, Inc.	State: Virg	ginia Sampling Point: DP-8
Investigator(s): J. Moore, S. Swartzendruber	Section, Township, Range:	
	ocal relief (concave, convex, none): <u>None</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): <u>S 148</u> Lat: <u>38.636566</u>	2 Long: -77.4076691	Datum: WGS 84
Soil Map Unit Name: Hatboro-Codorus complex	NWI clas	ssification: N/A
Are climatic / hydrologic conditions on the site typical for this time of y	ear? Yes 🖌 No (If no, explain	in Remarks.)
Are Vegetation, Soil, or Hydrology significantly	y disturbed? Are "Normal Circumstanc	es" present? Yes 🔽 No
Are Vegetation, Soil, or Hydrology naturally p	roblematic? (If needed, explain any ar	nswers 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	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					
Upland Data Point 8 ta	ken outsid	e wetland f	lag A-65.		

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) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No <u></u>	
Water Table Present? Yes No 🖌 Depth (inches):	
	Hydrology Present? Yes No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available	ailable:
Remarks:	
Wetland hydrology was not observed at this Data Point.	

Sampling Point: DP-8

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: 2 (A)
2				Total Number of Dominant
3				Species Across All Strata: <u>2</u> (B)
4				Demonst of Deminent Creation
5				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
6			. <u> </u>	Prevalence Index worksheet:
		= Total Cov	/er	Total % Cover of: Multiply by:
50% of total cover:	20% of	total cover	:	$\begin{array}{c c c c c c c c c c c c c c c c c c c $
Sapling Stratum (Plot size: 30 ft r				
1				
2				FAC species $\frac{100}{0}$ x 3 = $\frac{300}{0}$
3				FACU species $\frac{0}{2}$ x 4 = $\frac{0}{2}$
				UPL species 0 x 5 = 0
4				Column Totals: 100 (A) 300 (B)
5				Drughan later D/A 30
6			·	Prevalence Index = B/A = <u>3.0</u>
		= Total Cov	/er	Hydrophytic Vegetation Indicators:
50% of total cover:	20% of	total cover		1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 15 ft r)				<u> </u> 2 - Dominance Test is >50%
1				\checkmark 3 - Prevalence Index is ≤3.0 ¹
2				4 - Morphological Adaptations ¹ (Provide supporting
3				data in Remarks or on a separate sheet)
4				Problematic Hydrophytic Vegetation ¹ (Explain)
5				
6			·	¹ Indicators of hydric soil and wetland hydrology must
0		= Total Cov		be present, unless disturbed or problematic.
				Definitions of Five Vegetation Strata:
50% of total cover:	20% of	total cover	·	Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r)	~~			approximately 20 ft (6 m) or more in height and 3 in.
_{1.} Athyrium angustum	90	~	FAC	(7.6 cm) or larger in diameter at breast height (DBH).
2				Sapling – Woody plants, excluding woody vines,
3				approximately 20 ft (6 m) or more in height and less
4				than 3 in. (7.6 cm) DBH.
5				Shrub – Woody plants, excluding woody vines,
6				approximately 3 to 20 ft (1 to 6 m) in height.
7				Herb – All herbaceous (non-woody) plants, including
8				herbaceous vines, regardless of size, and woody
9				plants, except woody vines, less than approximately 3 $ft (1, m)$ is backet
10				ft (1 m) in height.
				Woody vine – All woody vines, regardless of height.
11	90%	= Total Cov		
45				
50% of total cover: <u>45</u>	20% of	total cover	18	
Woody Vine Stratum (Plot size: 30 ft r)				
1. Smilax rotundifolia	10	~	FAC	
2				
3				
4				
5				
		= Total Cov	/er	Hydrophytic Vegetation
EQU/ of total action 5	10%			Hydrophytic Vegetation Present? Yes <u>V</u> No
50% of total cover: <u>5</u> Remarks: (Include photo numbers here or on a separate	<u>10%</u> 20% of			Vegetation

Hydrophytic vegetation dominates this Data Point.

Profile Desc	ription: (Describe	to the depth	n needed to docum	nent the ir	ndicator	or confirm	n the absence	of indicato	rs.)		
Depth	Matrix			Features							
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks		
0 - 7	10YR 4/4	100					Silt Loam				
7 - 16	10YR 5/3	100					Silt Loam				
-											
				·							
-											
-											
-											
-											
-											
	oncentration, D=Dep	oletion, RM=F	Reduced Matrix, MS	=Masked	Sand Gra	ains.	² Location: PL			3	
Hydric Soil									oblematic Hydr		
Histosol	· · ·		Dark Surface	. ,				•	10) (MLRA 147)	
	oipedon (A2)		Polyvalue Be						Redox (A16)		
Black Hi	. ,		Thin Dark Su	• •	•	47, 148)		(MLRA 147			
	n Sulfide (A4)		Loamy Gleye		-2)				odplain Soils (F	19)	
	d Layers (A5)		Depleted Mat	· · ·	•			(MLRA 136			
	ick (A10) (LRR N)	- () ()	Redox Dark S	•	,		Very Shallow Dark Surface (TF12) Other (Explain in Remarks)				
	d Below Dark Surfac	e (A11)	Depleted Dar		. ,		0	iner (Explain	n in Remarks)		
	ark Surface (A12) lucky Mineral (S1) (Redox Depre Iron-Mangane		,						
	147, 148)	LKK N,	MLRA 136		5 (F12) (1	LKK N,					
	Gleyed Matrix (S4)		Umbric Surfa	,	MI R 4 13	6 122)	³ Indi	cators of hy	drophytic veget	ation and	
	edox (S5)		Piedmont Flo						ogy must be pre		
-	Matrix (S6)		Red Parent M					-	d or problemati		
	_ayer (if observed)	:		,	, ,						
Type:											
Depth (ind	ches):						Hydric Soil	Present?	Yes	No 🖌	
Remarks:											
Hydric s	oil was not o	bserved	d at this Data	a Point	t.						

Project/Site: 161 Data Center	City/County: Prince William County	Sampling Date: 2020-06-02
Applicant/Owner: Land Design Consultants, Inc.	State: Virginia	_ Sampling Point: DP-9
Investigator(s): J. Moore, S. Swartzendruber	_ Section, Township, Range:	
Landform (hillslope, terrace, etc.): Floodplain	ocal relief (concave, convex, none): <u>Concave</u>	Slope (%): 2
Subregion (LRR or MLRA): <u>\$ 148</u> Lat: <u>38.627807</u>	6 Long: -77.4211989	Datum: WGS 84
Soil Map Unit Name: Hatboro-Codorus complex	NWI classifica	ation: PFO wetland
Are climatic / hydrologic conditions on the site typical for this time of y	vear? Yes 🖌 No (If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hydrology significantl	y disturbed? Are "Normal Circumstances" pr	resent? Yes 🔽 No
Are Vegetation, Soil, or Hydrology naturally p	roblematic? (If needed, explain any answers	s 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 🖌	No No No	Is the Sampled Area within a Wetland?	Yes 🖌	No
Remarks:					
PFO wetland Data Point	9 taken in	iside wetland	l flag E2.		

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) High Water Table (A2) Vater Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water Stained Leaves (B9) Aquatic Fauna (B13) 	 Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2)
Field Observations:	
Surface Water Present? Yes No V Depth (inches):	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Remarks: Wetland hydrology was observed at this Data Point.	

Sampling Point: DP-9

	Absoluto	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r)		Species?		
1 Acer rubrum	60	V	FAC	Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)
· ··		·		
2				Total Number of Dominant
3		·		Species Across All Strata: <u>8</u> (B)
4				
5				Percent of Dominant Species That Are OBL_EACW or EAC* 88 (A/B)
		·		That Are OBL, FACW, or FAC: 88 (A/B)
6		·		Prevalence Index worksheet:
	60%	= Total Cov	er	
50% of total cover: <u>30</u>	20% of	total cover:	12	Total % Cover of: Multiply by:
Sapling Stratum (Plot size: 30 ft r)				OBL species $0 x 1 = 0$
	20	~	FAC	FACW species <u>45</u> x 2 = <u>90</u>
1. Carpinus caroliniana		·		FAC species 110 x 3 = 330
2. Fagus grandifolia	10	~	FACU	FACU species 10 x 4 = 40
3				
4				
		·		Column Totals: <u>170</u> (A) <u>485</u> (B)
5		·		
6				Prevalence Index = B/A = 2.9
	30%	= Total Cov	er	Hydrophytic Vegetation Indicators:
50% of total across 15				 1 - Rapid Test for Hydrophytic Vegetation
50% of total cover: <u>15</u>	20% 01	total cover.	0	
Shrub Stratum (Plot size: 15 ft r)				<u>✓</u> 2 - Dominance Test is >50%
1				\checkmark 3 - Prevalence Index is ≤3.0 ¹
2				4 - Morphological Adaptations ¹ (Provide supporting
				data in Remarks or on a separate sheet)
3				Problematic Hydrophytic Vegetation ¹ (Explain)
4				
5				¹ Indicators of hydric soil and wetland hydrology must
6				be present, unless disturbed or problematic.
				se precent, amere aletaised er presiemater
		 Total Cov 	er	
		= Total Cov		Definitions of Five Vegetation Strata:
50% of total cover:				
				Tree – Woody plants, excluding woody vines,
50% of total cover: Herb Stratum (Plot size: <u>5 ft r</u>) 1. Carex grayi				
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi	20% of	total cover:	FACW	Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Carex grayi 2. Fraxinus pennsylvanica	20% of 15 15	total cover:	FACW FACW	Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi 2. Fraxinus pennsylvanica 3. Ludwigia alternifolia	20% of 15 15 15 15	total cover:	FACW FACW FACW	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi 2. Fraxinus pennsylvanica 3. Ludwigia alternifolia 4. Microstegium vimineum	20% of 15 15	total cover:	FACW FACW	Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi 2. Fraxinus pennsylvanica 3. Ludwigia alternifolia	20% of 15 15 15 15	total cover:	FACW FACW FACW	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
Herb Stratum (Plot size: 5 ft r 1. Carex grayi 2. Fraxinus pennsylvanica 3. Ludwigia alternifolia 4. Microstegium vimineum 5. Smilax rotundifolia	20% of 15 15 15 15 15 15	total cover:	FACW FACW FACW FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
Herb Stratum (Plot size: 5 ft r 1. Carex grayi 2. Fraxinus pennsylvanica 3. Ludwigia alternifolia 4. Microstegium vimineum 5. Smilax rotundifolia 6. Galium circaezans	20% of 15 15 15 15 15 15 5	total cover:	FACW FACW FAC FAC FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
Herb Stratum (Plot size: 5 ft r 1. Carex grayi 2. Fraxinus pennsylvanica 3. Ludwigia alternifolia 4. Microstegium vimineum 5. Smilax rotundifolia	20% of 15 15 15 15 15 15 5	total cover:	FACW FACW FAC FAC FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including
Herb Stratum (Plot size: 5 ft r 1. Carex grayi 2. Fraxinus pennsylvanica 3. Ludwigia alternifolia 4. Microstegium vimineum 5. Smilax rotundifolia 6. Galium circaezans	20% of 15 15 15 15 15 15 5 	total cover:	FACW FACW FACW FAC FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi 2. Fraxinus pennsylvanica 3. Ludwigia alternifolia 4. Microstegium vimineum 5. Smilax rotundifolia 6. Galium circaezans 7	20% of 15 15 15 15 15 15 5 	total cover:	FACW FACW FAC FAC FAC UPL	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi 2. Fraxinus pennsylvanica 3. Ludwigia alternifolia 4. Microstegium vimineum 5. Smilax rotundifolia 6. Galium circaezans 7	20% of 15 15 15 15 15 5 	total cover:	FACW FACW FAC FAC FAC UPL	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi 2. Fraxinus pennsylvanica 3. Ludwigia alternifolia 4. Microstegium vimineum 5. Smilax rotundifolia 6. Galium circaezans 7	20% of 15 15 15 15 15 5 	total cover:	FACW FACW FAC FAC FAC UPL	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi 2. Fraxinus pennsylvanica 3. Ludwigia alternifolia 4. Microstegium vimineum 5. Smilax rotundifolia 6. Galium circaezans 7	20% of 15 15 15 15 15 5 	total cover:	FACW FACW FAC FAC FAC UPL	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi 2. Fraxinus pennsylvanica 3. Ludwigia alternifolia 4. Microstegium vimineum 5. Smilax rotundifolia 6. Galium circaezans 7	20% of 15 15 15 15 15 5 	total cover:	FACW FACW FAC FAC FAC UPL	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi 2. Fraxinus pennsylvanica 3. Ludwigia alternifolia 4. Microstegium vimineum 5. Smilax rotundifolia 6. Galium circaezans 7. 8. 9. 10. 11.	20% of 15 15 15 15 15 5 80%	total cover:	FACW FACW FAC FAC FAC UPL	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi 2. Fraxinus pennsylvanica 3. Ludwigia alternifolia 4. Microstegium vimineum 5. Smilax rotundifolia 6. Galium circaezans 7	20% of 15 15 15 15 15 5 80%	total cover:	FACW FACW FAC FAC FAC UPL	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi 2. Fraxinus pennsylvanica 3. Ludwigia alternifolia 4. Microstegium vimineum 5. Smilax rotundifolia 6. Galium circaezans 7. 8. 9. 10. 11.	20% of 15 15 15 15 15 5 80%	total cover:	FACW FACW FAC FAC FAC UPL	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi 2. Fraxinus pennsylvanica 3. Ludwigia alternifolia 4. Microstegium vimineum 5. Smilax rotundifolia 6. Galium circaezans 7	20% of 15 15 15 15 5 80% 20% of	total cover:	FACW FACW FAC FAC UPL er 16	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi 2. Fraxinus pennsylvanica 3. Ludwigia alternifolia 4. Microstegium vimineum 5. Smilax rotundifolia 6. Galium circaezans 7. 8. 9. 10. 11. 50% of total cover: 40 Woody Vine Stratum (Plot size: 30 ft r) 1.	20% of 15 15 15 15 5 80% 20% of	total cover:	FACW FACW FAC FAC FAC UPL er 16	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi 2. Fraxinus pennsylvanica 3. Ludwigia alternifolia 4. Microstegium vimineum 5. Smilax rotundifolia 6. Galium circaezans 7. 8. 9. 10. 11. 50% of total cover: 40 Woody Vine Stratum (Plot size: 30 ft r) 1. 2.	20% of 15 15 15 15 5 80% 20% of	total cover:	FACW FACW FAC FAC UPL er 16	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi 2. Fraxinus pennsylvanica 3. Ludwigia alternifolia 4. Microstegium vimineum 5. Smilax rotundifolia 6. Galium circaezans 7. 8. 9. 10. 11. 50% of total cover: 40 Woody Vine Stratum (Plot size: 30 ft r) 1. 2. 3.	20% of 15 15 15 5 5 	total cover:	FACW FACW FAC FAC UPL er 16	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
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Hydrophytic vegetation dominates this Data Point.

Sampling Point: DP-9

Profile Desc	ription: (Describe	to the de	pth needed to docur	nent the i	indicator	or confirm	n the absence of indicators.)	
Depth	Matrix		Redo	x Feature	s			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks	
0 - 3	10YR 5/2	100					Silt Loam	
3 - 14	10YR 5/2	85	7.5YR 5/8	15	С	PL/M	Silt Loam	
-						·		
-								
-								
-								
-								
-								
-								
-								
¹ Type: C=Co	oncentration, D=Dep	letion, RM	1=Reduced Matrix, MS	S=Masked	d Sand Gr	ains.	² Location: PL=Pore Lining, M=Matrix.	
Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :								s³:
<u> </u>	(A1)		Dark Surface	e (S7)			2 cm Muck (A10) (MLRA 147)	
Histic Ep	oipedon (A2)		Polyvalue Be				, 148) Coast Prairie Redox (A16)	
Black Hi	()		Thin Dark Su			47, 148)	(MLRA 147, 148)	
	n Sulfide (A4)		Loamy Gleye		(F2)		Piedmont Floodplain Soils (F19)	
	l Layers (A5)		Depleted Mar	, ,			(MLRA 136, 147)	
	ick (A10) (LRR N)		Redox Dark \$				Very Shallow Dark Surface (TF12)	
	Below Dark Surfac	e (A11)	Depleted Dar				Other (Explain in Remarks)	
	ark Surface (A12)		Redox Depre					
-	lucky Mineral (S1) (I	LRR N,	Iron-Mangan		es (F12) (LRR N,		
	A 147, 148)		MLRA 13				<u>^</u>	
	ileyed Matrix (S4)		Umbric Surfa				³ Indicators of hydrophytic vegetation a	าd
	edox (S5)		Piedmont Flo					
	Matrix (S6)		Red Parent N	Aaterial (F	⁻ 21) (MLR	A 127, 147	7) unless disturbed or problematic.	
Restrictive I	_ayer (if observed):							
Туре:								
	ches):						Hydric Soil Present? Yes No	
Remarks:								
Hydric s	oil was obse	rved a	it this Data Po	oint.				

Project/Site: 161 Data Center	City/County: Prince William County	Sampling Date: 2020-06-02
Applicant/Owner: Land Design Consultants, Inc.	State: Virginia	_ Sampling Point: DP-10
Investigator(s): J. Moore, S. Swartzendruber	Section, Township, Range:	
	ocal relief (concave, convex, none): <u>None</u>	Slope (%): 2
Subregion (LRR or MLRA): <u>S 148</u> Lat: <u>38.6277161</u>	Long: -77.4210858	Datum: WGS 84
Soil Map Unit Name: Hatboro-Codorus complex	NWI classifica	ation: N/A
Are climatic / hydrologic conditions on the site typical for this time of y	rear? Yes 🖌 No (If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hydrology significantly	y disturbed? Are "Normal Circumstances" p	resent? Yes 🔽 No
Are Vegetation, Soil, or Hydrology naturally p	roblematic? (If needed, explain any answer	s 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	No V No V No V	Is the Sampled Area within a Wetland?	Yes	No 🖌
Remarks:					
Upland Data Point 10 ta	ken outsi	de wetland fl	ag E2.		

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) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Aquatic Fauna (B13) 	Dry-Season Water Table (C2)
Field Observations: Surface Water Present? Yes No _ Depth (inches): Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) No _ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective)	Wetland Hydrology Present? Yes No tions), if available:
Remarks: Wetland hydrology was not observed at this Data Poin	t.

Sampling Point: DP-10

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r)	% Cover	Species?		Number of Dominant Species
1. Liriodendron tulipifera	60	~	FACU	That Are OBL, FACW, or FAC: 2 (A)
2. Quercus falcata	40	~	FACU	
3				Total Number of Dominant Species Across All Strata: 6 (B)
				Species Across All Strata (B)
4				Percent of Dominant Species
5			·	That Are OBL, FACW, or FAC: <u>33</u> (A/B)
6				Drevelance Index worksheet:
	100%	= Total Co	/er	Prevalence Index worksheet:
50% of total cover: 50	20% of	total cover	. 20	Total % Cover of: Multiply by:
Sapling Stratum (Plot size: 30 ft r)	2070 01		·	OBL species 0 x 1 = 0
	20	~	FACU	FACW species 0 x 2 = 0
1 _. Fagus grandifolia	30	-		FAC species 30 x 3 = 90
2				FACU species 130 x 4 = 520
3				
4				
5				Column Totals: <u>180</u> (A) <u>710</u> (B)
				5
6	0.001		·	Prevalence Index = B/A = <u>3.9</u>
	30%	= Total Co	/er	Hydrophytic Vegetation Indicators:
50% of total cover: <u>15</u>	20% of	total cover	: 6	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 15 ft r)			·	2 - Dominance Test is >50%
				3 - Prevalence Index is ≤3.0 ¹
1				
2				4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
3				
4				Problematic Hydrophytic Vegetation ¹ (Explain)
5			- <u> </u>	¹ Indicators of hydric soil and wetland hydrology must
6			·	be present, unless disturbed or problematic.
	:	= Total Co	/er	
				Definitions of Five Vegetation Strata:
50% of total cover:	20% of			-
50% of total cover:	20% of			Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r)			:	Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Galium circaezans	20	total cover	UPL	Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r)			:	Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines,
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Herb Stratum (Plot size: <u>5 ft r</u>) 1. Galium circaezans 2. Microstegium vimineum	20	total cover	UPL	Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines,
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Herb Stratum (Plot size: 5 ft r) 1. Galium circaezans 2. Microstegium vimineum 3. 4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover: 20 Woody Vine Stratum (Plot size: 30 ft r) 1. Smilax rotundifolia 2. 3. 4.	20 20 40% 10	total cover	UPL FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
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Herb Stratum (Plot size: <u>5 ft r</u>) 1. Galium circaezans 2. Microstegium vimineum 3. 4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover: <u>20</u> Woody Vine Stratum (Plot size: <u>30 ft r</u>) 1. Smilax rotundifolia 2. 3. 4. 5.	20 20 	total cover	UPL FAC FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height. Hydrophytic Vegetation
Herb Stratum (Plot size: 5 ft r) 1. Galium circaezans 2. Microstegium vimineum 3	20 20 	total cover	UPL FAC FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height. Hydrophytic

Hydrophytic vegetation does not dominate this Data Point.

Profile Desc	ription: (Describe	to the dept	h needed to docun	nent the i	ndicator	or confirm	the absence of ir	idicators.)	
Depth	Matrix			x Features	3				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Rema	irks
0 - 16	10YR 5/3	100					Silt Loam		
·		·							<u> </u>
		·				<u> </u>			
-		·							
-									
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		·				<u> </u>			
	oncentration, D=Dep	letion, RM=	Reduced Matrix, MS	S=Masked	Sand Gra	ains.	² Location: PL=Pc		
Hydric Soil	Indicators:						Indicators	for Problemati	c Hydric Soils ³ :
Histosol	(A1)		Dark Surface	(S7)			2 cm I	Muck (A10) (MLF	RA 147)
	oipedon (A2)		Polyvalue Be		· / •		·	Prairie Redox (A	416)
Black Hi	, ,		Thin Dark Su	• • •	•	47, 148)	•	.RA 147, 148)	
	n Sulfide (A4)		Loamy Gleye		F2)			ont Floodplain S	Soils (F19)
	d Layers (A5)		Depleted Mat	. ,			•	.RA 136, 147)	
	ıck (A10) (LRR N)		Redox Dark \$	Surface (F	6)			Shallow Dark Sur	, ,
Depleted	d Below Dark Surface	e (A11)	Depleted Dar	k Surface	(F7)		Other	(Explain in Rema	arks)
Thick Da	ark Surface (A12)		Redox Depre	ssions (F8	3)				
Sandy M	lucky Mineral (S1) (L	.RR N,	Iron-Mangan	ese Masse	es (F12) (I	LRR N,			
MLRA	A 147, 148)		MLRA 13	6)					
Sandy G	leyed Matrix (S4)		Umbric Surfa	ce (F13) (MLRA 13	6, 122)	³ Indicato	ors of hydrophytic	c vegetation and
Sandy R	edox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	8) wetland	d hydrology must	t be present,
Stripped	Matrix (S6)		Red Parent M	Aaterial (F	21) (MLR	A 127, 147	7) unless	disturbed or prob	olematic.
Restrictive I	_ayer (if observed):								
Туре:									
Depth (ind	ches):						Hydric Soil Pres	sent? Yes	No 🖌
Remarks:							-		
				_ ·	_				
Hydric s	oil was not o	bserve	d at this Dat	a Poin	t.				

Project/Site: 161 Data Center	City/County: Prince William County	Sampling Date: 2020-06-02
Applicant/Owner: Land Design Consultants, Inc.	State: Virginia	_ Sampling Point: DP-11
Investigator(s): J. Moore, S. Swartzendruber	Section, Township, Range:	
Landform (hillslope, terrace, etc.): Depression	ocal relief (concave, convex, none): Concave	Slope (%): <u>2</u>
Subregion (LRR or MLRA): <u>S 148</u> Lat: <u>38.6270142</u>	2 Long:77.4179142	Datum: WGS 84
Soil Map Unit Name: Hatboro-Codorus complex	NWI classifica	ation: N/A
Are climatic / hydrologic conditions on the site typical for this time of y	ear? Yes 🖌 No (If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hydrology significantly	v disturbed? Are "Normal Circumstances" p	resent? Yes 🔽 No
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If needed, explain any answer	s 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	No No No	Is the Sampled Area within a Wetland?	Yes	No	
Remarks:						
Upland Data Point 11 taken on floodplain, outside wetland flag AF1.						

Secondary Indicators (minimum of two required)
Surface Soil Cracks (B6)
 Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Iand Hydrology Present? Yes No
his Data Point.
:

Sampling Point: DP-11

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r)		Species?		
Acer rubrum	60	~	FAC	Number of Dominant Species That Are OBL, FACW, or FAC: 2(A)
n				
2				Total Number of Dominant
3				Species Across All Strata: <u>3</u> (B)
4				
				Percent of Dominant Species That Are OBL EACW or EAC 67 (A/B)
5				That Are OBL, FACW, or FAC: <u>67</u> (A/B)
6				Prevalence Index worksheet:
	60%	= Total Cov	er	
50% of total cover: <u>30</u>	20% of	total cover	12	Total % Cover of: Multiply by:
	20/001			OBL species 0 x 1 = 0
Sapling Stratum (Plot size: 30 ft r)	40			FACW species 0 x 2 = 0
1. Fagus grandifolia	10	~	FACU	FAC species 145 x 3 = 435
2				
3				FACU species $\frac{20}{5}$ x 4 = $\frac{80}{5}$
				UPL species <u>5</u> x 5 = <u>25</u>
4				Column Totals: <u>170</u> (A) <u>540</u> (B)
5				
6				Prevalence Index = $B/A = 3.2$
	10%	= Total Cov	er	Hydrophytic Vegetation Indicators:
_				
50% of total cover: <u>5</u>	20% of	total cover	2	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 15 ft r)				✓ 2 - Dominance Test is >50%
1				3 - Prevalence Index is ≤3.0 ¹
				4 - Morphological Adaptations ¹ (Provide supporting
2				data in Remarks or on a separate sheet)
3				Problematic Hydrophytic Vegetation ¹ (Explain)
4				
5				
				¹ Indicators of hydric soil and wetland hydrology must
6				be present, unless disturbed or problematic.
		= Total Cov	er	Definitions of Five Vegetation Strata:
				Definitions of Five vegetation Strata:
50% of total cover:	20% of	total cover		
50% of total cover:	20% of	total cover		Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r)				Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: 5 ft r) 1. Microstegium vimineum	85	total cover	FAC	Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r) 1. Microstegium vimineum 2. Perilla frutescens	85 10			Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
Herb Stratum (Plot size: 5 ft r) 1. Microstegium vimineum	85		FAC	Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: 5 ft r) 1. Microstegium vimineum 2. Perilla frutescens 3. Galium circaezans	85 10		FAC FACU	Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r) 1. Microstegium vimineum 2. Perilla frutescens 3. Galium circaezans 4	85 10		FAC FACU	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
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Herb Stratum (Plot size: 5 ft r) 1. Microstegium vimineum 2. Perilla frutescens 3. Galium circaezans 4	85 10 5	<u> </u>	FAC FACU UPL	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
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Herb Stratum (Plot size: <u>5 ft r</u>) 1. Microstegium vimineum 2. Perilla frutescens 3. Galium circaezans 4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover: <u>50</u> Woody Vine Stratum (Plot size: <u>30 ft r</u>) 1. 2. 3.	85 10 5 	Total Cover	FAC FACU UPL	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height. Hydrophytic
Herb Stratum (Plot size: 5 ft r) 1. Microstegium vimineum 2. Perilla frutescens 3. Galium circaezans 4	85 10 5 		FAC FACU UPL	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height. Hydrophytic Vegetation
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Microstegium vimineum 2. Perilla frutescens 3. Galium circaezans 4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover: <u>50</u> Woody Vine Stratum (Plot size: <u>30 ft r</u>) 1. 2. 3. 4. 5.	85 10 5 	Total Cover Total Cover Total Cover Total Cover	FAC FACU UPL	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height. Hydrophytic
Herb Stratum (Plot size: 5 ft r) 1. Microstegium vimineum 2. Perilla frutescens 3. Galium circaezans 4	85 10 5 	Total Cover Total Cover Total Cover Total Cover	FAC FACU UPL	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height. Hydrophytic Vegetation

Hydrophytic vegetation dominates this Data Point.

Sampling Point: DP-11

Profile Desc	ription: (Describe	to the dep	oth needed to docun	nent the i	ndicator	or confirm	n the absence	of indicato	ors.)	
Depth	Matrix			x Feature						
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	3
0 - 3	10YR 5/3	100		. <u></u>		·	Silt Loam			
3 - 14	10YR 5/3	85	7.5YR 5/8	15	С	PL / M	Silt Loam			
-										
-										
_		<u> </u>								
		·		·		·				
		<u> </u>	·			·				
		·								
		<u> </u>		<u> </u>		·				
-		<u> </u>				·				
		letion, RM	=Reduced Matrix, MS	S=Masked	Sand Gr	ains.	² Location: PL			
Hydric Soil I										Hydric Soils ³ :
Histosol			Dark Surface		(00) (1			•	10) (MLRA	
	ipedon (A2)		Polyvalue Be						Redox (A16	5)
Black His	n Sulfide (A4)		Thin Dark Su Loamy Gleye			47, 148)		(MLRA 14	odplain Soil	c (E10)
	Layers (A5)		Depleted Mat		12)			(MLRA 13	•	3 (113)
	ck (A10) (LRR N)		Redox Dark S		6)			•	Dark Surfac	ce (TF12)
	Below Dark Surfac	e (A11)	Depleted Dar		,				n in Remark	
Thick Da	rk Surface (A12)		Redox Depre	ssions (Fa	3)					
Sandy M	ucky Mineral (S1) (I	_RR N,	Iron-Mangane	ese Mass	es (F12) (LRR N,				
	147, 148)		MLRA 13							
	leyed Matrix (S4)		Umbric Surfa							egetation and
	edox (S5)		Piedmont Flo					-	logy must be	
	Matrix (S6) .ayer (if observed):	1	Red Parent M	laterial (F	21) (MLR	A 127, 147	() unie	ess disturd	ed or proble	matic.
Type:										
	:hes):						Hydric Soil	Present?	Yes	No 🖌
Remarks:								resenti	103	
					_					
Hydric s	oil not was o	bserve	ed at this Dat	a Poin	t.					

Project/Site: 161 Data Center	City/County: Prince William County	Sampling Date: 2020-06-02
Applicant/Owner: Land Design Consultants, Inc.	State: Virginia	_ Sampling Point: DP-12
Investigator(s): J. Moore, S. Swartzendruber	Section, Township, Range:	
Landform (hillslope, terrace, etc.): Depression	cal relief (concave, convex, none): Concave	Slope (%): 2
Subregion (LRR or MLRA): <u>S 148</u> Lat: <u>38.6340942</u>		Datum: WGS 84
Soil Map Unit Name: Hatboro-Codorus complex	NWI classifica	ation: N/A
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes 🖌 No (If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "Normal Circumstances" p	resent? Yes 🔽 No
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If needed, explain any answer	s 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 🖌	No No No	Is the Sampled Area within a Wetland?	Yes 🖌	No
Remarks:					
PFO wetland Data Point	12 taken i	nside wetlan	d flag AH16.		

	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
 Surface Water (A1) High Water Table (A2) Hydrogen Sulfide Odor (C1) Saturation (A3) Oxidized Rhizospheres on Living I Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Recent Iron Reduction in Tilled Sc Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) 	Dry-Season Water Table (C2)
Field Observations:	
Surface Water Present? Yes No ✓ Depth (inches): Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes ✓ No Depth (inches):	Wetland Hydrology Present? Yes <u>//</u> No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	tions), if available:
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	tions), if available:
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	tions), if available:

Sampling Point: DP-12

00.0	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r)		Species?		Number of Dominant Species
1. Acer rubrum	60	<u> </u>	FAC	That Are OBL, FACW, or FAC: <u>3</u> (A)
2. Betula nigra	40	~	FACW	Total Number of Dominant
3				Species Across All Strata: <u>4</u> (B)
4				
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (A/B)
6				
	100%	= Total Cov	er	Prevalence Index worksheet:
50				Total % Cover of: Multiply by:
50% of total cover: 50	20% of	total cover:	20	OBL species 0 x 1 = 0
Sapling Stratum (Plot size: 30 ft r)	_			FACW species 50 x 2 = 100
1. Fagus grandifolia	5	 ✓ 	FACU	FAC species 60 x 3 = 180
2				FACU species $5 \times 4 = 20$
3				
4				
5				Column Totals: <u>115</u> (A) <u>300</u> (B)
6.				Prevalence Index = B/A = 2.6
0	5%	Tatal Oa		
		= Total Cov		Hydrophytic Vegetation Indicators:
50% of total cover: <u>3</u>	20% of	total cover:	1	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 15 ft r)				<u> </u> 2 - Dominance Test is >50%
1				3 - Prevalence Index is ≤3.0 ¹
2				4 - Morphological Adaptations ¹ (Provide supporting
				data in Remarks or on a separate sheet)
3				Problematic Hydrophytic Vegetation ¹ (Explain)
4				
5				¹ Indicators of hydric soil and wetland hydrology must
6				be present, unless disturbed or problematic.
	:	= Total Cov	er	Definitions of Five Vegetation Strata:
50% of total cover:	20% of	total cover:		
Herb Stratum (Plot size: 5 ft r)				Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
1. Onoclea sensibilis	10	~	FACW	(7.6 cm) or larger in diameter at breast height (DBH).
1				
2				Sapling – Woody plants, excluding woody vines,
3				approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
4				
5				Shrub – Woody plants, excluding woody vines,
6				approximately 3 to 20 ft (1 to 6 m) in height.
7				Herb – All herbaceous (non-woody) plants, including
8				herbaceous vines, regardless of size, and woody
9				plants, except woody vines, less than approximately 3 ft (1 m) in height.
10				
				Woody vine – All woody vines, regardless of height.
11				
	10%	= Total Cov	er	
50% of total cover: 5	20% of	total cover:	2	
Woody Vine Stratum (Plot size: 30 ft r)				
1				
2				
3				
4				
5				Hydrophytic
	:	= Total Cov	er	Vegetation
50% of total cover:	20% of	total cover:		Present? Yes <u>V</u> No
Remarks: (Include photo numbers here or on a separate				
	5/1001.)			

Hydrophytic vegetation dominates the Data Point.

Profile Desc	ription: (Describe	to the de	pth needed to docur	nent the	indicator	or confirn	n the absence	of indicators.)
Depth	Matrix			x Feature		2		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0 - 5	10YR 5/1	100					Sandy loam	
5 - 16	10YR 4/1	95	10YR 5/8	5	С	М	Sandy loam	
-		_						
			·		·	·		
			·			·	<u> </u>	
-					·	- <u> </u>	·	
					<u> </u>			
-								
-								
			·		·	·		
			·			·	. <u> </u>	
			·		·	·	<u> </u>	
		pletion, RM	I=Reduced Matrix, MS	S=Maske	d Sand Gr	ains.		L=Pore Lining, M=Matrix.
Hydric Soil								ators for Problematic Hydric Soils ³ :
Histosol	· · /		Dark Surface	· · ·	(a -) (a			cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be				, 148) C	oast Prairie Redox (A16)
	stic (A3) en Sulfide (A4)		Thin Dark Su Loamy Gleye	•		147, 148)	П	(MLRA 147, 148) iedmont Floodplain Soils (F19)
	d Layers (A5)		✓ Depleted Ma		(Г2)		F	(MLRA 136, 147)
	ick (A10) (LRR N)		Redox Dark	• •	F6)		V	ery Shallow Dark Surface (TF12)
	d Below Dark Surfac	e (A11)	Depleted Dar	```	,			ther (Explain in Remarks)
Thick Da	ark Surface (A12)	. ,	Redox Depre					
Sandy M	lucky Mineral (S1) (LRR N,	Iron-Mangan	ese Mass	ses (F12) (LRR N,		
	A 147, 148)		MLRA 13	,			0	
	Bleyed Matrix (S4)		Umbric Surfa					icators of hydrophytic vegetation and
	edox (S5)		Piedmont Flo					tland hydrology must be present,
	Matrix (S6) Layer (if observed)		Red Parent N	Vaterial (F	-21) (MLR	A 127, 14	/) uni	less disturbed or problematic.
	Layer (if observed)	•						
Туре:								
	ches):						Hydric Soil	Present? Yes <u>V</u> No
Remarks:								
Hydric s	oil observed	l at thi	s Data Point.					

Project/Site: 161 Data Center	City/County: Prince William County	Sampling Date: 2020-06-02
Applicant/Owner: Land Design Consultants, Inc.	State: Virginia	_ Sampling Point: DP-13
Investigator(s): J. Moore, S. Swartzendruber	Section, Township, Range:	
Landform (hillslope, terrace, etc.): Upland, Swale Lo	cal relief (concave, convex, none): Concave	Slope (%): 2
Subregion (LRR or MLRA): <u>S 148</u> Lat: <u>38.6342468</u>	B Long:77.4084717	Datum: WGS 84
Soil Map Unit Name: Buckhalk loam	NWI classifica	ation: N/A
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes 🖌 No (If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "Normal Circumstances" pr	resent? Yes 🔽 No
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If needed, explain any answer	s 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	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					
Upland Data Point 13 ta	ken inside	upland swal	e, south of Quanti	co Creek.	

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) True Aquatic Plants (B14) High Water Table (A2) Hydrogen Sulfide Odor (C1) Saturation (A3) Oxidized Rhizospheres on Living I Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Recent Iron Reduction in Tilled So Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	 Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes No _ ✓
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	
(includes capillary fringe)	tions), if available:
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	tions), if available:

Sampling Point: DP-13

00.6	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r)		Species?		Number of Dominant Species
1. Quercus alba	20	 ✓ 	FACU	That Are OBL, FACW, or FAC: 1 (A)
2				
3				Total Number of Dominant Species Across All Strata: <u>3</u> (B)
				Species Across All Strata. (b)
4				Percent of Dominant Species
5			·	That Are OBL, FACW, or FAC: <u>33</u> (A/B)
6				Prevalence Index worksheet:
	20%	= Total Cov	ver	
50% of total cover: <mark>10</mark>	20% of	total cover	4	Total % Cover of: Multiply by:
Sapling Stratum (Plot size: 30 ft r)			·	OBL species $\frac{0}{2}$ x 1 = $\frac{0}{2}$
	15	V	FACU	FACW species 0 x 2 = 0
	5	~	FAC	FAC species <u>5</u> x 3 = <u>15</u>
				FACU species <u>35</u> x 4 = <u>140</u>
3				UPL species $0 \times 5 = 0$
4				Column Totals: 40 (A) 155 (B)
5				
6				Prevalence Index = B/A = <u>3.9</u>
	20%	= Total Cov	ver	Hydrophytic Vegetation Indicators:
50% of total cover: 10				1 - Rapid Test for Hydrophytic Vegetation
	20% of	total cover:	4	2 - Dominance Test is >50%
Shrub Stratum (Plot size: <u>15 ft r</u>)				
1				3 - Prevalence Index is ≤3.0 ¹
2				4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
3			. <u> </u>	• •
4				Problematic Hydrophytic Vegetation ¹ (Explain)
5				
6				¹ Indicators of hydric soil and wetland hydrology must
0				be present, unless disturbed or problematic.
		= Total Cov	/er	Definitions of Five Vegetation Strata:
50% of total cover:	20% of	total cover	·	Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r)				approximately 20 ft (6 m) or more in height and 3 in.
1				(7.6 cm) or larger in diameter at breast height (DBH).
2				Sepling Weedy plante, evoluting weedy vince
3				Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
4			·	than 3 in. (7.6 cm) DBH.
4			·	
5			·	Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
6			·	
7				Herb - All herbaceous (non-woody) plants, including
8				herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3
9			·	ft (1 m) in height.
10				
11				Woody vine – All woody vines, regardless of height.
		= Total Cov		
50% of total cover:	20% of	total cover:	·	
Woody Vine Stratum (Plot size: 30 ft r)				
1				
2.				
23.				
3				
3 4				
3			·	Hydrophytic
3 4 5	 	= Total Cov	ver	Vegetation
3 4	 	= Total Cov	ver	

Hydrophytic vegetation does not dominate this Data Point.

Profile Desc	cription: (Describe	to the dept	h needed to docume	ent the ir	ndicator of	or confirn	the absence of indicators.)	
Depth	Matrix		Redox	Features	5			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remar	ks
0 - 8	10YR 3/3	100					Silt Loam	
6 - 16	10YR 5/8	100					Silt Loam	
-								
-								
_		·						
		·					· ·	
						·		
		·						
-				<u></u> .			2	
Hydric Soil		letion, RM=	Reduced Matrix, MS=	Masked	Sand Gra	ains.	² Location: PL=Pore Lining, M=Mat Indicators for Problematic	
Histosol			Dark Surface (97)			2 cm Muck (A10) (MLR	•
	oipedon (A2)		Polyvalue Belo		M (88) A			•
	istic (A3)		Thin Dark Surf				(MLRA 147, 148)	10)
	en Sulfide (A4)		Loamy Gleyed	. ,	•	47, 140)	Piedmont Floodplain So	oile (E10)
	()		Depleted Matri		2)			
	d Layers (A5)			· · /	C)		(MLRA 136, 147)	
	uck (A10) (LRR N)	- () 4 4)	Redox Dark Su				Very Shallow Dark Sur	· · ·
·	d Below Dark Surface	e (A11)	Depleted Dark		. ,		Other (Explain in Rema	IFKS)
	ark Surface (A12)		Redox Depres	•	,			
	Nucky Mineral (S1) (L	.RR N,	Iron-Manganes		es (F12) (I	_RR N,		
	A 147, 148)		MLRA 136)				3	
	Bleyed Matrix (S4)		Umbric Surface	• • •			³ Indicators of hydrophytic	•
	Redox (S5)		Piedmont Floo	•	. ,	•		•
-	Matrix (S6)		Red Parent Ma	terial (F2	21) (MLR	A 127, 14	 unless disturbed or prob 	ematic.
Restrictive I	Layer (if observed):							
Туре:								
Depth (in	ches):						Hydric Soil Present? Yes	No 🗹
Remarks:								
Hvdric s	oil was not o	bserve	d at this Data	Point	t.			
,		•						

Project/Site: 161 Data Center	City/County: Prince William County	Sampling Date: 2020-06-09
Applicant/Owner: Land Design Consultants, Inc.	State: Vi	rginia Sampling Point: DP-14
Investigator(s): J. Moore, S. Swartzendruber	Section, Township, Range:	
	ocal relief (concave, convex, none): Conca	ave Slope (%): 2
Subregion (LRR or MLRA): <u>S 148</u> Lat: <u>38.634094</u>	2 Long:77.4086700	Datum: WGS 84
Soil Map Unit Name: Buckhall Ioam	NWI cl	assification: N/A
Are climatic / hydrologic conditions on the site typical for this time of y	ear? Yes 🖌 No (If no, expla	in in Remarks.)
Are Vegetation, Soil, or Hydrology significantly	v disturbed? Are "Normal Circumstar	nces" present? Yes 🔽 No
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If needed, explain any a	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	No No No	Is the Sampled Area within a Wetland?	Yes	No			
Remarks:								
Upland Data Point 14 taken outside wetland flag AH16.								

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) High Water Table (A2) Saturation (A3) Oxidized Rhizospheres on Living Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) 	Dry-Season Water Table (C2)
Field Observations:	
Surface Water Present? Yes No ✓ Depth (inches):	Wetland Hydrology Present? Yes No
Remarke:	
Remarks: Wetland hydrology was not observed at this Data Poin	t.
	t.

Sampling Point: DP-14

00.0	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r)		Species?		Number of Dominant Species
1. Acer rubrum	100	~	FAC	That Are OBL, FACW, or FAC: <u>3</u> (A)
2				
3				Total Number of Dominant Species Across All Strata: <u>4</u> (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 75 (A/B)
6			·	Prevalence Index worksheet:
	100% :	= Total Cov	er	
50% of total cover: 50	20% of	total cover:	20	Total % Cover of: Multiply by:
Sapling Stratum (Plot size: 30 ft r)				OBL species $\frac{0}{2}$ x 1 = $\frac{0}{2}$
	30	~	FACU	FACW species 0 x 2 = 0
	- 50			FAC species 115 x 3 = 345
2				FACU species 30 x 4 = 120
3				UPL species 0 x 5 = 0
4				
5				Column Totals: <u>145</u> (A) <u>465</u> (B)
			·	Prevalence Index = B/A = <u>3.2</u>
6	30%	T () O	·	
	50%	= Total Cov	rer	Hydrophytic Vegetation Indicators:
50% of total cover: <u>15</u>	20% of	total cover:	6	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 15 ft r)				✓ 2 - Dominance Test is >50%
1				3 - Prevalence Index is ≤3.0 ¹
				4 - Morphological Adaptations ¹ (Provide supporting
2				data in Remarks or on a separate sheet)
3				Problematic Hydrophytic Vegetation ¹ (Explain)
4				
5				1
6				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
	:			
				Definitions of Five Vegetation Strata:
50% of total cover:	20% of	total cover:		Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r)				approximately 20 ft (6 m) or more in height and 3 in.
1. Athyrium angustum	10	~	FAC	(7.6 cm) or larger in diameter at breast height (DBH).
2				Capling Weady planta avaluding weady wines
3				Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
S			·	than 3 in. (7.6 cm) DBH.
4			·	
5				Shrub – Woody plants, excluding woody vines,
6				approximately 3 to 20 ft (1 to 6 m) in height.
7				Herb – All herbaceous (non-woody) plants, including
8				herbaceous vines, regardless of size, and woody
9				plants, except woody vines, less than approximately 3
				ft (1 m) in height.
10			·	Woody vine – All woody vines, regardless of height.
11			·	· · · · · · · · · · · · · · · · · · ·
	<u>10%</u> :	= Total Cov	rer	
50% of total cover: 5	20% of	total cover	2	
Woody Vine Stratum (Plot size: 30 ft r)	2070 01			
Smilax rotundifolia	5	~	FAC	
··			·	
2				
3				
4				
5		_		
· · · · · · · · · · · · · · · · · · ·	5%	Total Car		Hydrophytic
		= Total Cov		Vegetation Present? Yes <u>Ves</u> No
50% of total cover: <u>3</u>	20% of	total cover:	1	
Remarks: (Include photo numbers here or on a separate	sheet.)			

Hydrophytic vegetation dominates the Data Point.

Sampling Point: DP-14

Profile Desc	ription: (Describe	to the de	pth needed to docum	nent the i	ndicator	or confirn	n the absence	of indicato	rs.)		
Depth	Matrix			K Features		. 2	— .		- ·		
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>		Remarks		
0 - 3	10YR 4/2	100	·			·	Silt Loam				
3 - 16	10YR 5/3	90	7.5YR 5/8	10	С	M	Silty clay loam				
-											
-											
						·					
						·					
						·		·			<u> </u>
-		. <u> </u>				·					
-											
-						·					
¹ Type: C=Co	oncentration, D=Dep	letion. RM	I=Reduced Matrix, MS	 S=Masked	Sand Gr	ains	² Location: F	PI =Pore Linii	ng, M=Matrix		
Hydric Soil I				machea					oblematic H		oils ³ :
<u> </u>	(A1)		Dark Surface	(S7)			2	2 cm Muck (A	(MLRA)	147)	
	ipedon (A2)		Polyvalue Bel				148) (Redox (A16))	
Black Hi			Thin Dark Su	, ,	•	47, 148)	_	(MLRA 14		(—)	
	n Sulfide (A4)		Loamy Gleye	•	F2)		F		odplain Soils	s (F19)	
	l Layers (A5) ck (A10) (LRR N)		Depleted Mat Redox Dark S		6)		١	(MLRA 13	Dark Surfac	o (TE12)	
	Below Dark Surface	e (A11)	Depleted Dar	•					n in Remarks		
	irk Surface (A12)	- ()	Redox Depre							- /	
Sandy M	lucky Mineral (S1) (L	.RR N,	Iron-Mangane	ese Masse	es (F12) (LRR N,					
	. 147, 148)		MLRA 136				2				
	leyed Matrix (S4)		Umbric Surfa						/drophytic ve	-	
	edox (S5) Matrix (S6)		Piedmont Flo					-	ogy must be ed or problem		
	ayer (if observed):			ialenai (F.		A 127, 14	r) ur			latic.	
Type:											
Depth (inc	thes):						Hydric Soi	I Present?	Yes	No	~
Remarks:											
				ь ·							
Hydric s	oil was not o	bserv	ed at this Data	a Poin	t.						

Project/Site: 161 Data Center	City/County: Prince William County	Sampling Date: 2020-06-09
Applicant/Owner: Land Design Consultants, Inc.	State: Virginia	Sampling Point: DP-15
Investigator(s): J. Moore, S. Swartzendruber	Section, Township, Range:	
Landform (hillslope, terrace, etc.): Depression	cal relief (concave, convex, none): <u>Concave</u>	Slope (%): 2
Subregion (LRR or MLRA): <u>S 148</u> Lat: <u>38.6340942</u>	2 Long:77.4086700	Datum: WGS 84
Soil Map Unit Name: Buckhall Ioam	NWI classific	ation: N/A
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes 🖌 No (If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "Normal Circumstances" p	oresent? Yes 🔽 No
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If needed, explain any answe	rs 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	No No No	Is the Sampled Area within a Wetland?	Yes	No			
Remarks:								
Upland Data Point 15 taken outside wetland flag AH6.								

Sampling Point: DP-15

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r)	% Cover	Species?	Status	Number of Dominant Species
_{1.} Acer rubrum	80	~	FAC	That Are OBL, FACW, or FAC: 4 (A)
2				
				Total Number of Dominant
3				Species Across All Strata: <u>5</u> (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: <u>80</u> (A/B)
6				
	80%	= Total Cov		Prevalence Index worksheet:
10				Total % Cover of: Multiply by:
50% of total cover: 40	20% of	total cover	10	OBL species 0 x 1 = 0
Sapling Stratum (Plot size: 30 ft r)				FACW species 0 $x^2 = 0$
_{1.} Fagus grandifolia	20	~	FACU	
2				FAC species 155 x 3 = 465
2				FACU species 20 x 4 = 80
3				UPL species $0 \times 5 = 0$
4				Column Totals: 175 (A) 545 (B)
5				
6.				Prevalence Index = B/A = 3.1
	20%	= Total Cov		Hydrophytic Vegetation Indicators:
50% of total cover: <u>10</u>	20% of	total cover	4	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 15 ft r)				
1				3 - Prevalence Index is ≤3.0 ¹
				4 - Morphological Adaptations ¹ (Provide supporting
2				data in Remarks or on a separate sheet)
3			·	Problematic Hydrophytic Vegetation ¹ (Explain)
4				
5				1
6				¹ Indicators of hydric soil and wetland hydrology must
·		= Total Cov		be present, unless disturbed or problematic.
	·		ei	Definitions of Five Vegetation Strata:
50% of total cover:	20% of	total cover		Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r)				approximately 20 ft (6 m) or more in height and 3 in.
1 Athyrium angustum	50	~	FAC	(7.6 cm) or larger in diameter at breast height (DBH).
2 Microstegium vimineum	20	~	FAC	
			170	Sapling – Woody plants, excluding woody vines,
3				approximately 20 ft (6 m) or more in height and less
4				than 3 in. (7.6 cm) DBH.
5.				Shrub – Woody plants, excluding woody vines,
6				approximately 3 to 20 ft (1 to 6 m) in height.
6			·	
7			·	Herb – All herbaceous (non-woody) plants, including
8				herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3
9				ft (1 m) in height.
10				
				Woody vine – All woody vines, regardless of height.
11				
	70%	= Total Cov	rer	
50% of total cover: 35	20% of	total cover	14	
Woody Vine Stratum (Plot size: 30 ft r)			·	
1 Smilax rotundifolia	5	~	FAC	
		~	FAC	
2				
3				
4				
			·	
٥			·	Hydrophytic
	5%	= Total Cov	er	Vegetation
50% of total cover: 3	20% of	total cover	1	Present? Yes <u>V</u> No
Remarks: (Include photo numbers here or on a separate			·	

Hydrophytic vegetation dominates the Data Point.

Profile Desc	ription: (Describe	to the dep	oth needed to docur	nent the	indicator	or confirm	m the absence of indicators.)	
Depth	Matrix			x Feature				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks	
0 - 3	10YR 4/2	100					Silt Loam	
3 - 16	10YR 5/3	90	7.5YR 5/8	10	С	М	Silty clay loam	
-								
-		_						
						·	· ·	
						·	· · · · · · · _ · _ · _ ·	
-						·		
-								
-								
_								
-						·	· ·	
		lation PM	Reduced Matrix, MS	-Maaka	d Sand Cr		² Location: PL=Pore Lining, M=Matrix.	—
Hydric Soil				S=IVIASKE		aii 15.	Indicators for Problematic Hydric Soils ³ :	
Histosol			Dark Surface	(97)			2 cm Muck (A10) (MLRA 147)	
	pipedon (A2)		Polyvalue Be	. ,	nce (S8) (N	II RA 147		
Black Hi			Thin Dark Su				(MLRA 147, 148)	
	n Sulfide (A4)		Loamy Gleye			,,	Piedmont Floodplain Soils (F19)	
	Layers (A5)		Depleted Ma		()		(MLRA 136, 147)	
	ick (A10) (LRR N)		Redox Dark		=6)		Very Shallow Dark Surface (TF12)	
	Below Dark Surfac	e (A11)	Depleted Da		,		Other (Explain in Remarks)	
-	ark Surface (A12)		Redox Depre					
Sandy M	lucky Mineral (S1) (LRR N,	Iron-Mangan	ese Mass	es (F12) (LRR N,		
MLRA	A 147, 148)		MLRA 13	6)				
Sandy G	ileyed Matrix (S4)		Umbric Surfa	ce (F13)	(MLRA 13	6, 122)	³ Indicators of hydrophytic vegetation and	
Sandy R	edox (S5)		Piedmont Flo	odplain S	Soils (F19)	(MLRA 14	48) wetland hydrology must be present,	
Stripped	Matrix (S6)		Red Parent M	Naterial (F	21) (MLR	A 127, 14	(7) unless disturbed or problematic.	
Restrictive I	_ayer (if observed)							
Туре:								
Depth (inc	ches):						Hydric Soil Present? Yes No	_
Remarks:								
Hvdric s	oil was not c	bserv	ed at this Dat	a Poir	nt.			
,								

Project/Site: 161 Data Center	City/County: Prince William County	Sampling Date: 2020-06-09
Applicant/Owner: Land Design Consultants, Inc.	State: V	irginia Sampling Point: DP-16
Investigator(s): J. Moore, S. Swartzendruber	Section, Township, Range:	
	cal relief (concave, convex, none): Linea	r Slope (%): 2
Subregion (LRR or MLRA): <u>S 148</u> Lat: <u>38.6239624</u>	Long: -77.4214084	Datum: WGS 84
Soil Map Unit Name: Occoquan sandy loam	NWI c	lassification: N/A
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes 🗹 No (If no, expla	in in Remarks.)
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "Normal Circumsta	nces" present? Yes 🗹 No
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If needed, explain 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 🖌	No No No	Is the Sampled Area within a Wetland?	Yes 🖌	No
Remarks:					
PFO wetland Data Point	16 taken i	nside wetlan	d flag GA4.		

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) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10)
✓ Saturation (A3) Oxidized Rhizospheres on	Living Roots (C3) Moss Trim Lines (B16)
✓ Water Marks (B1) Presence of Reduced Iron	(C4) Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Ti	Iled Soils (C6) Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
✓ Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No <u></u>	
Water Table Present? Yes No <u>/</u> Depth (inches):	
Saturation Present? Yes <u>Ves</u> No Depth (inches): <u>8</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>V</u> No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous	inspections), if available:
Remarks:	
Remarks: Wetland hydrology observed at this Data Point.	

Sampling Point: DP-16

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r)		Species?		Number of Dominant Species
_{1.} Nyssa sylvatica	80	~	FAC	That Are OBL, FACW, or FAC: $\underline{4}$ (A)
2. Carpinus caroliniana	20	~	FAC	
2				Total Number of Dominant Species Across All Strata: 4 (B)
3				Species Across All Strata: <u>4</u> (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100 (A/B)
6				
	100%	= Total Cov	er	Prevalence Index worksheet:
50				Total % Cover of: Multiply by:
50% of total cover: 50	20% of	total cover:	20	OBL species 0 x 1 = 0
Sapling Stratum (Plot size: 30 ft r)				FACW species 0 x 2 = 0
1. Carpinus caroliniana	30	~	FAC	$\frac{150}{150} = \frac{150}{150}$
2				FAC species $\frac{150}{2}$ x 3 = $\frac{450}{2}$
				FACU species 0 x 4 = 0
3				UPL species 0 x 5 = 0
4				Column Totals: 150 (A) 450 (B)
5				
6				Prevalence Index = B/A = 3.0
	30%	= Total Cov	or	Hydrophytic Vegetation Indicators:
50% of total cover: <u>15</u>	20% of	total cover:	6	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 15 ft r)				✓ 2 - Dominance Test is >50%
1				✓ 3 - Prevalence Index is $\leq 3.0^{1}$
				4 - Morphological Adaptations ¹ (Provide supporting
2				data in Remarks or on a separate sheet)
3				Problematic Hydrophytic Vegetation ¹ (Explain)
4				
5				
6				¹ Indicators of hydric soil and wetland hydrology must
0				be present, unless disturbed or problematic.
		= Total Cov	er	Definitions of Five Vegetation Strata:
50% of total cover:	20% of	total cover:		The second
Herb Stratum (Plot size: 5 ft r)				Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
				approximately 20 if (0 iii) of more in neight and 3 in.
I ₄ Athvrium andustum	20	~	FAC	(7.6 cm) or larger in diameter at breast height (DBH).
1. Athyrium angustum				(7.6 cm) or larger in diameter at breast height (DBH).
2				Sapling – Woody plants, excluding woody vines,
				Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
2				Sapling – Woody plants, excluding woody vines,
2				Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
2 3 4 5				Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
23456	 			 Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines,
2 3 4 5	 			 Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including
23456				 Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
23 34 45 6 78				 Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3
2 3 4 5 6 7 8 9				 Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
23 33 45 56 78 9 10				 Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
2 3 4 5 6 7 8 9				 Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3
23 33 45 56 78 9 10				 Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
2				 Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
23				 Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
2		Total Cover:	er 4	 Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
23		Total Cover:	er 4	 Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
2		= Total Cov		 Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
23		= Total Cov	er	 Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
2			er 4	 Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
2		Total Cover:	er 4	 Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
2		Total Cover:	er 4	 Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
2		Total Cover:	er	 Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height. Hydrophytic Vegetation
2.		= Total Cov total cover: = Total Cov	er 4	 Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height. Hydrophytic
2		= Total Cov total cover: = Total Cov	er 4	 Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height. Hydrophytic Vegetation

Hydrophytic vegetation dominates this Data Point.

Profile Desc	ription: (Describ	e to the de	pth needed to docur	nent the	indicator	or confirm	n the absence	of indicator	rs.)	
Depth	Matrix			x Feature					_	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹		Texture		Remarks	
0 - 6	10YR 4/1	95	5YR 5/8	5	С	M	Clay			
6 - 16	10YR 5/1	60	5YR 6/8	40	С	Μ	Clay			
-										
-										
							·			
-							<u> </u>			
-				_						
-										
1 T				0 Maalaa			21	- Deve Linia		
Hydric Soil		epietion, Riv	I=Reduced Matrix, M	5=IVIaske	d Sand G	rains.			ng, M=Matrix.	ric Soils ³
Histosol			Dark Surface	s (S7)					.10) (MLRA 147	
	pipedon (A2)		Polyvalue Be		ace (S8) (MLRA 147.			Redox (A16)	,
Black Hi			Thin Dark Su				, , <u> </u>	(MLRA 147	. ,	
	n Sulfide (A4)		Loamy Gleye			, - ,	P		odplain Soils (F	19)
	Layers (A5)		Depleted Ma		· /			(MLRA 136		,
	ick (A10) (LRR N)		Redox Dark	Surface (F6)		V		Dark Surface (TF12)
Depleted	Below Dark Surfa	ice (A11)	Depleted Da	rk Surfac	e (F7)		C	ther (Explain	n in Remarks)	
Thick Da	ark Surface (A12)		Redox Depre	essions (F	-8)					
Sandy M	lucky Mineral (S1)	(LRR N,	Iron-Mangan	ese Mass	ses (F12)	(LRR N,				
	A 147, 148)		MLRA 13	•			2			
	ileyed Matrix (S4)		Umbric Surfa	. ,	•			•	drophytic veget	
	edox (S5)		Piedmont Flo	•	•	, .	•	•	ogy must be pre	
	Matrix (S6) ayer (if observed	N.	Red Parent N	Material (I	-21) (MLI	RA 127, 14	7) un	less disturbe	ed or problemati	IC.
	ayer (if observed	l):								
Type:								D ====================================	¥ ¥	Na
Depth (ind	nes).						Hydric Soil	Present?	Yes	No
Remarks:										
Hydric s	oil was obs	erved a	at this Data Po	oint.						

Project/Site: 161 Data Center	City/County: Prince William Cou	
Applicant/Owner: Land Design Consultants, Inc.	Sta	te: Virginia Sampling Point: DP-17
Investigator(s): J. Moore, S. Swartzendruber	Section, Township, Range:	· -
Landform (hillslope, terrace, etc.): Upland	cal relief (concave, convex, none): _	None Slope (%): _5
Subregion (LRR or MLRA): <u>S 148</u> Lat: <u>38.623962</u>	Long: -77.421	4084 Datum: WGS 84
Soil Map Unit Name: Occoquan sandy loam		NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes 🖌 No (If no	explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "Normal Circu	umstances" present? Yes 🗹 No
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If needed, explai	n 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 🖌	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					
Upland Data Point 17 tal	ken outsid	e wetland fla	ag GA8.		

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) True Aquatic Plants (E	14) Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odo	r (C1) Drainage Patterns (B10)
✓ Saturation (A3) Oxidized Rhizosphere	s on Living Roots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced	Iron (C4) Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction	in Tilled Soils (C6) Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C	7) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Rem	arks) Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No 🔽 Depth (inches):	
Water Table Present? Yes No <u></u>	
Saturation Present? Yes <u>V</u> No Depth (inches): <u>8</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>V</u> No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, prev	ious inspections), if available:
Remarks:	
Wetland hydrology was observed at this Data P	oint.

Sampling Point: DP-17

	Abaaluta	Dominant	Indiantar	Deminonee Test werkeheet
Tree Stratum (Plot size: 30 ft r)		Dominant Species?		Dominance Test worksheet:
1. Fagus grandifolia	80		FACU	Number of Dominant Species
1. Tagus granunolla	00		1,400	That Are OBL, FACW, or FAC: 0 (A)
2				Total Number of Dominant
3				Total Number of Dominant Species Across All Strata: <u>4</u> (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 0 (A/B)
6				
	80%	= Total Cov	or	Prevalence Index worksheet:
				Total % Cover of: Multiply by:
50% of total cover: 40	20% of	total cover:	16	
Sapling Stratum (Plot size: 30 ft r)				
	10	~	FACU	FACW species 0 x 2 = 0
				FAC species $0 x 3 = 0$
2				FACU species 115 x 4 = 460
3				
4				Column Totals: <u>115</u> (A) <u>460</u> (B)
5				
6				Prevalence Index = $B/A = 4.0$
	400/	= Total Cov		Hydrophytic Vegetation Indicators:
50% of total cover: <u>5</u>	20% of	total cover:	2	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 15 ft r)				2 - Dominance Test is >50%
				3 - Prevalence Index is ≤3.0 ¹
1				
2				4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
3				. ,
				Problematic Hydrophytic Vegetation ¹ (Explain)
4				
5				¹ Indicators of hydric soil and wetland hydrology must
6				be present, unless disturbed or problematic.
		= Total Cov	er	Definitions of Five Vegetation Strates
		= Total Cov		Definitions of Five Vegetation Strata:
50% of total cover:				
				Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r)				Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
<u>Herb Stratum</u> (Plot size: <u>5 ft r</u>) 1. Fagus grandifolia	20% of	total cover:	FACU	Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r)	20% of	total cover:		 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines,
<u>Herb Stratum</u> (Plot size: <u>5 ft r</u>) 1. Fagus grandifolia	20% of	total cover:	FACU	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
<u>Herb Stratum</u> (Plot size: <u>5 ft r</u>) 1. Fagus grandifolia 2. Vaccinium angustifolium	20% of	total cover:	FACU	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines,
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Fagus grandifolia 2. Vaccinium angustifolium 3	20% of 15 10	total cover:	FACU FACU	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Fagus grandifolia 2. Vaccinium angustifolium	20% of 15 10	total cover:	FACU FACU	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines,
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Fagus grandifolia 2. Vaccinium angustifolium 3	20% of 15 10		FACU FACU	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
Herb Stratum (Plot size: 5 ft r) 1. Fagus grandifolia 2. Vaccinium angustifolium 3	20% of 15 10		FACU FACU	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Fagus grandifolia 2. Vaccinium angustifolium 3 4	20% of 15 10 		FACU FACU	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including
Herb Stratum (Plot size: 5 ft r) 1. Fagus grandifolia 2. Vaccinium angustifolium 3 4 5 6 7 8	20% of 15 10 		FACU FACU	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Fagus grandifolia 2. Vaccinium angustifolium 3 4 5 6 7	20% of 15 10 		FACU FACU	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
Herb Stratum (Plot size: 5 ft r) 1. Fagus grandifolia 2. Vaccinium angustifolium 3	20% of 15 10 		FACU FACU	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3
Herb Stratum (Plot size: 5 ft r) 1. Fagus grandifolia 2. Vaccinium angustifolium 3	20% of 15 10 		FACU FACU	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3
Herb Stratum (Plot size: 5 ft r) 1. Fagus grandifolia 2. Vaccinium angustifolium 3	20% of 15 		FACU FACU	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Fagus grandifolia 2. Vaccinium angustifolium 3	20% of 15 		FACU FACU	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Fagus grandifolia 2. Vaccinium angustifolium 3. 4. 5. 6. 7. 8. 9. 10. 11.	20% of 	total cover:	FACU FACU	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Fagus grandifolia 2. Vaccinium angustifolium 3. 4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover: 13	20% of 	total cover:	FACU FACU	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Fagus grandifolia 2. Vaccinium angustifolium 3. 4. 5. 6. 7. 8. 9. 10. 11.	20% of 	total cover:	FACU FACU	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Fagus grandifolia 2. Vaccinium angustifolium 3	20% of 15 	total cover:	FACU FACU	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Fagus grandifolia 2. Vaccinium angustifolium 3. 4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover: 13 Woody Vine Stratum (Plot size: 30 ft r) 1.	20% of 15 	total cover:	FACU FACU	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Fagus grandifolia 2. Vaccinium angustifolium 3. 4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover: <u>13</u> Woody Vine Stratum Plot size: <u>30 ft r</u>) 1. 2.	20% of 15 10 	total cover:	FACU FACU	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Fagus grandifolia 2. Vaccinium angustifolium 3. 4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover: 13 Woody Vine Stratum (Plot size: 30 ft r) 1.	20% of 15 10 	total cover:	FACU FACU	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Fagus grandifolia 2. Vaccinium angustifolium 3	20% of 15 	total cover:	FACU FACU	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Fagus grandifolia 2. Vaccinium angustifolium 3	20% of 15 10 	total cover:	FACU FACU	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Fagus grandifolia 2. Vaccinium angustifolium 3	20% of 15 10 	total cover:	FACU FACU	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
Herb Stratum (Plot size: 5 ft r) 1. Fagus grandifolia 2. Vaccinium angustifolium 3	20% of 15 10 	total cover:	FACU FACU	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
Herb Stratum (Plot size: 5 ft r) 1. Fagus grandifolia 2. Vaccinium angustifolium 3	20% of 15 10 	total cover:	FACU FACU	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
Herb Stratum (Plot size: 5 ft r) 1. Fagus grandifolia 2. Vaccinium angustifolium 3	20% of 15 10 	total cover:	FACU FACU	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height. Hydrophytic Vegetation

Hydrophytic vegetation does not dominate this Data Point.

Sampling Point: DP-17

Depth Matrix Redox Features (inches) Color (moist) % Type ¹ Loc ² Texture Remarks 0 - 4 10YR 3/2 / Silty clay
Color (moist) % Color (moist) % Type ¹ Loc ² Texture Remarks 0 - 4 10YR 3/2 /
<u>4 - 16 10YR 5/1 80 10YR 5/8 20 C M Silty clay</u>
-
·
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :
Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147)
Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Prairie Redox (A16)
Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) (MLRA 147, 148)
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19)
Stratified Layers (A5) V Depleted Matrix (F3) (MLRA 136, 147)
2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12)
Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks)
Thick Dark Surface (A12) Redox Depressions (F8)
Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N,
MLRA 147, 148) MLRA 136)
Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) ³ Indicators of hydrophytic vegetation and
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) wetland hydrology must be present,
Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic.
Restrictive Layer (if observed):
Туре:
Depth (inches): Mo
Remarks:
Hydric soil was observed at this Data Point.

Project/Site: 161 Data Center	City/County: Prince William County	Sampling Date: 2020-06-09
Applicant/Owner: Land Design Consultants, Inc.	State: Virginia	a Sampling Point: DP-18
Investigator(s): J. Moore, S. Swartzendruber	Section, Township, Range:	
Landform (hillslope, terrace, etc.): Depression	cal relief (concave, convex, none): Linear	Slope (%): <u>2</u>
Subregion (LRR or MLRA): <u>S 148</u> Lat: <u>38.6240234</u>	4 Long:77.4229241	Datum: WGS 84
Soil Map Unit Name: Meadowville Ioam	NWI classific	cation: N/A
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes 🖌 No (If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If needed, explain any answe	ers 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 🖌	No No No	Is the Sampled Area within a Wetland?	Yes 🖌	No
Remarks:					
PFO wetland Data Point 18 taken inside wetland flag GB7.					

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required	d; check all that apply)	Surface Soil Cracks (B6)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) 	 True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Thin Muck Surface (C7) Other (Explain in Remarks) 	Dry-Season Water Table (C2)
Field Observations:		
Water Table Present? Yes No Saturation Present? Yes No (includes capillary fringe) Yes No	b ✓ Depth (inches):	atland Hydrology Present? Yes _ ✔_ No), if available:
Remarks: Wetland hydrology was obse	erved at this Data Point.	

Sampling Point: DP-18

00.6	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>30 ft r</u>)		Species?		Number of Dominant Species
1. Acer rubrum	50	<u> </u>	FAC	That Are OBL, FACW, or FAC: 2 (A)
2				Total Number of Dominant
3		. <u> </u>		Species Across All Strata: <u>2</u> (B)
4				
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
6		·	. <u> </u>	
	50%	= Total Cov	er	Prevalence Index worksheet:
25				Total % Cover of: Multiply by:
50% of total cover: 25	20% of	total cover:	10	OBL species 0 x 1 = 0
Sapling Stratum (Plot size: 30 ft r)				FACW species 0 x 2 = 0
1				FAC species 55 x 3 = 165
2				FACU species 0 $x = 0$
3				UPL species 0 $x 5 = 0$
4				
5				Column Totals: <u>55</u> (A) <u>165</u> (B)
6				Prevalence Index = B/A = <u>3.0</u>
		= Total Cov	er	Hydrophytic Vegetation Indicators:
50% of total cover:	20% of	total cover		1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 15 ft r)	2070 01			✓ 2 - Dominance Test is >50%
				✓ 3 - Prevalence Index is $\leq 3.0^1$
1				4 - Morphological Adaptations ¹ (Provide supporting
2				data in Remarks or on a separate sheet)
3				Problematic Hydrophytic Vegetation ¹ (Explain)
4				
5				¹ Indicators of hydric soil and wetland hydrology must
6				be present, unless disturbed or problematic.
		= Total Cov	er	Definitions of Five Vegetation Strata:
50% of total cover:	20% of	total cover:		
Herb Stratum (Plot size: 5 ft r)				Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
1. Athyrium angustum	5	~	FAC	(7.6 cm) or larger in diameter at breast height (DBH).
		·		
2				Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
3				than 3 in. (7.6 cm) DBH.
4		·	·	
5		·		Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
6 7				Herb – All herbaceous (non-woody) plants, including
8				herbaceous vines, regardless of size, and woody
9				plants, except woody vines, less than approximately 3
			·	ft (1 m) in height.
10		·	·	Woody vine – All woody vines, regardless of height.
11				
	5%	= Total Cov	er	
50% of total cover: <u>3</u>	20% of	total cover:	1	
Woody Vine Stratum (Plot size: 30 ft r)				
1				
2				
3				
4				
5				Hydrophytic
		= Total Cov	er	Vegetation
50% of total cover:	20% of	total cover:		Present? Yes <u>V</u> No
Remarks: (Include photo numbers here or on a separate				1

Hydrophytic vegetation dominates this Data Point.

SOIL

Sampling Point: DP-18

Profile Desc	ription: (Describe	to the dep	th needed to docun	nent the	indicator	or confirm	n the absence of indicators.)		
Depth	Matrix			K Feature		. 2			
(inches)	Color (moist)		Color (moist)	<u>%</u>	Type'	Loc ²	Texture Remarks		
0 - 5	10YR 5/1	90	10YR 6/8	10	С	М	Clay		
5 - 16	10YR 5/1	70	5Y 5/8	30	С	Μ	Clay Gley1 6/10GY 70%		
-									
-									
·								—	
					·	·			
					·	<u> </u>		—	
					·	·			
·									
							·		
-									
		letion, RM	=Reduced Matrix, MS	S=Maske	d Sand Gr	ains.	² Location: PL=Pore Lining, M=Matrix.		
Hydric Soil I				(0-)			Indicators for Problematic Hydric Soils ³ :		
<u> </u>			Dark Surface		(00) (2 cm Muck (A10) (MLRA 147)		
	vipedon (A2)		Polyvalue Be						
Black His	n Sulfide (A4)		Thin Dark Su Loamy Gleye			147, 140)	(MLRA 147, 148) Piedmont Floodplain Soils (F19)		
	l Layers (A5)		✓ Depleted Mat		(Г∠)		(MLRA 136, 147)		
	ck (A10) (LRR N)		Redox Dark S		(Very Shallow Dark Surface (TF12)		
	Below Dark Surface	(۵11) م	Depleted Dar		,		Other (Explain in Remarks)		
	irk Surface (A12)	e (ATT)	Redox Depre						
	lucky Mineral (S1) (L	RR N	Iron-Mangane						
-	147, 148)	,	MLRA 130		(112)	,			
	leyed Matrix (S4)		Umbric Surfa		(MI RA 13	36, 122)	³ Indicators of hydrophytic vegetation and		
	edox (S5)		Piedmont Flo						
	Matrix (S6)		Red Parent M						
	ayer (if observed):				, ,				
Type:									
Depth (inc	ches):						Hydric Soil Present? Yes 🖌 No	_	
Remarks:									
Hydric s	oil was obse	rved a	t this Data Po	int					
riyune s				init.					

Project/Site: 161 Data Center	City/County: Prince William Cou		Э
Applicant/Owner: Land Design Consultants, Inc.	St	ate: Virginia Sampling Point: DP-19	
Investigator(s): J. Moore, S. Swartzendruber	Section, Township, Range:		
Landform (hillslope, terrace, etc.): Upland La	cal relief (concave, convex, none):	None Slope (%): <u>5</u>	
Subregion (LRR or MLRA): <u>S 148</u> Lat: <u>38.6240234</u>	4 Long:77.422	29241 Datum: WGS 84	
Soil Map Unit Name: Meadowville loam		NWI classification: N/A	
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes 🖌 No (If no	o, explain in Remarks.)	
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "Normal Circ	cumstances" present? Yes 🗹 No	
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If needed, expla	in 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	No No No	Is the Sampled Area within a Wetland?	Yes	No			
Remarks:								
Upland Data Point 19 taken outside wetland flag GB8.								

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) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living R	oots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soi	ls (C6) Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No _	
	Wetland Hydrology Present? Yes No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspecti	ons), if available:
Remarks:	
Wetland hydrology was not observed at this Data Point	

Sampling Point: DP-19

Ine Statum (Plot size: 30111	20.4	Absolute	Dominant	Indicator	Dominance Test worksheet:
2	Tree Stratum (Plot size: 30 ft r)				
3. Can wroke a function of borninant Species (B) 4. Species Ances Al Stratz: 4. (B) 5. Setting Stratum (Piot size: 30 ft r (A) (A) 1. Figus grandifolia 20 ✓ FACU FACU FACU FACU FACU Species (A) (A) 2. Carping Stratum (Piot size: 30 ft r 10 ✓ FACU FACU Species (B) Species (C) FACU Species (B) Species (C) FACU Species (C)	·· <u>·</u> ···				That are OBL, FACW, of FAC: 2 (A)
4					
5					Species Across All Strata: (B)
6. 60% = Total Cover 50% of total cover 30 × FACU 7. Fagus granum (Por size: 30 ft r) FAC 1. Fagus granum folia 20 × FACU 3. Liquidambar styraciflua 10 × FAC 4.					
60% = Total Cover Prevalence Index worksheet: Saping Stratum (Pot size: 30 fr					That Are OBL, FACW, or FAC: <u>50</u> (A/B)
Total % Cover of	o				Prevalence Index worksheet:
Solve of total cover 20% of total cover 20% 6 total cover 20% FACU FACU </td <td>30</td> <td></td> <td></td> <td></td> <td>Total % Cover of: Multiply by:</td>	30				Total % Cover of: Multiply by:
Spaning Stratum (Plot size: 30 ft 1 20 ✓ FACU 1. Fagus granum (Plot size: 30 ft 1 10 ✓ FACU FACU 2. Carpinus caroliniana 10 ✓ FACU FACU FACU 3. Liquidambar styraciflua 10 ✓ FACU FACU FACU 5.		20% of	total cover:	12	
1. Projecting granditiona 20 V FACC FACC<					
2. Carpinus caroliniana 10 FAC Solv Solv Solv Solv Solv Solv Solv Solv Solv Solv Solv					
3. Liquidambal styrachinda 10 rAc IV rAc 4. IV rAc Column Totals: 100 (A) 380 (B) 6. 40% = Total Cover B I - Repides 0 x 5 = 0 (A) (B) 7. 50% of total cover: 20 20% of total cover: 8 I - Repid Test for Hydrophytic Vegetation Indicators: I - Repid Test for Hydrophytic Vegetation Indicators: I - Repid Test for Hydrophytic Vegetation Indicators: I - Repid Test for Hydrophytic Vegetation I (Explain) 1. I So - Tervalence Index is S.0.° I - Repid Test for Hydrophytic Vegetation I (Explain) I - Repid Test for Hydrophytic Vegetation I (Explain) 1. I I - Repid Test for Hydrophytic Vegetation I (Explain) I - Repid Test for Hydrophytic Vegetation I (Explain) 1. I - Repid Test for Hydrophytic Vegetation I (Explain) I - Repidence Index is S.0.° I - Repidence Index is S.0.° 4. I - Repidence Index is S.0.° I - Repidence Index is S.0.° I - Repidence Index is S.0.° 2. I - Repidence Index is S.0.° I - Repidence Index is S.0.° I - Repidence Index is S.0.° 3. I - Repidence Index is S.0.° I - Repidence Index is S.0.° I - Repidence Index is S.0.° 2. S					
4					
5.	4				
40% = Total Cover 50% of total cover: 20 20% of total cover: 8 1	5				
50% of total cover: 20 20% of total cover: 8 1 1 1 1 1 1 2 0 1<	6				Prevalence Index = B/A = 3.8
Shrub Stratum (Plot size: 15 ft r		40%	= Total Cov	er	Hydrophytic Vegetation Indicators:
1	50% of total cover: 20	20% of	total cover:	8	1 - Rapid Test for Hydrophytic Vegetation
1.	Shrub Stratum (Plot size: 15 ft r)				
2			_		3 - Prevalence Index is ≤3.0 ¹
3.					
4					. ,
5.					Problematic Hydrophytic Vegetation' (Explain)
6.					
					Indicators of hydric soil and wetland hydrology must
50% of total cover: 20% of total cover: Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). 2.					
Herb Stratum (Plot size: 5 ft r) 1	E0% of total covor:				Demnitions of Five vegetation Strata.
1		20% 01	total cover.		
2.					approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH)
3.					
4					
6.	3				
6.	4				Chruck Maashaalasta ayabadiisa yoo adaayiisaa
7.	5				
8.					Harb All borbossous (non-woody) plants, including
0.					
10					
11.					ft (1 m) in height.
= Total Cover 50% of total cover: 20% of total cover: <u>Woody Vine Stratum</u> (Plot size: <u>30 ft r</u>) 1 2 3 4 5					Woody vine – All woody vines, regardless of height.
50% of total cover: 20% of total cover: Woody Vine Stratum (Plot size: 30 ft r 1.	-11. <u></u>				
Woody Vine Stratum (Plot size: 30 ft r) 1					
1.		20% of	total cover:		
2	Woody Vine Stratum (Plot size: 30 ft r)				
3	1				
4	2				
5	3				
= Total Cover Hydrophytic 50% of total cover: Vegetation 50% of total cover: Present?	4				
= Total Cover Vegetation 50% of total cover: 20% of total cover: Present? Yes No	5				Hydrophytic
50% of total cover: 20% of total cover: Present? Yes No			= Total Cov	er	Vegetation
	50% of total cover:	20% of	total cover:		Present? Yes No_
					1

Hydrophytic vegetation does not dominate this Data Point.

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (in the c)	Matrix	%		x Featur		Loc ²	Tautura	Demerte
<u>(inches)</u> 0 - 2	Color (moist) 10YR 3/2	100	Color (moist)	%	Type ¹	LOC	Texture Sandy loam	Remarks
	-					·		
2 - 10	10YR 5/3	80	10YR 5/8	20	C	M	Sandy clay loam	Gley1 6/10GY 70%
10 - 18	10YR 6/1	70	10YR 5/8	30	С	М	Clay loam	
-								
-								
-						·		
						·		
						·	. <u> </u>	
			·			·		
-								
-								
		pletion, RM	I=Reduced Matrix, M	S=Maske	ed Sand Gr	ains.		L=Pore Lining, M=Matrix.
Hydric Soil I								ators for Problematic Hydric Soils ³ :
Histosol	()		Dark Surface	· ,				cm Muck (A10) (MLRA 147)
·	ipedon (A2)		Polyvalue Be		· · ·		, 148) C	Coast Prairie Redox (A16)
Black His	. ,		Thin Dark Su			47, 148)		(MLRA 147, 148)
	n Sulfide (A4)		Loamy Gleye		(F2)		P	Viedmont Floodplain Soils (F19)
	l Layers (A5) ck (A10) (LRR N)		Redox Dark	. ,	(E6)		V	(MLRA 136, 147) Yery Shallow Dark Surface (TF12)
	Below Dark Surfac	e (A11)	Depleted Da		. ,			Other (Explain in Remarks)
	irk Surface (A12)		Redox Depre					
	lucky Mineral (S1) (LRR N,	Iron-Mangan			LRR N,		
	147, 148)		MLRA 13					
Sandy G	leyed Matrix (S4)		Umbric Surfa	ace (F13)	(MLRA 13	6, 122)	³ Ind	licators of hydrophytic vegetation and
Sandy R	edox (S5)		Piedmont Flor	odplain	Soils (F19)	(MLRA 1	48) we	etland hydrology must be present,
	Matrix (S6)		Red Parent N	Material (F21) (MLR	A 127, 14	7) un	less disturbed or problematic.
Restrictive L	ayer (if observed)	:						
Туре:								
Depth (inc	ches):						Hydric Soil	Present? Yes V No
Remarks:								
Hydric s	oil was obse	erved a	t this Data Po	oint.				

Project/Site: 161 Data Center	City/County: Prince William County	_ Sampling Date: 2020-06-09
Applicant/Owner: Land Design Consultants, Inc.	State: Virgin	ia Sampling Point: DP-20
Investigator(s): J. Moore, S. Swartzendruber	Section, Township, Range:	
Landform (hillslope, terrace, etc.): Depression	cal relief (concave, convex, none): Linear	Slope (%): <u>2</u>
Subregion (LRR or MLRA): <u>S 148</u> Lat: <u>38.6239624</u>	Long: -77.4214084	Datum: WGS 84
Soil Map Unit Name: Meadowville Ioam	NWI classi	fication: N/A
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes 🖌 No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "Normal Circumstances"	' present? Yes 🔽 No
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If needed, explain any answ	vers 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 🖌	No No No	Is the Sampled Area within a Wetland?	Yes 🖌	No
Remarks:					
PFO wetland Data Point	20 taken	inside wetlar	nd flag GC3.		

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) High Water Table (A2) Hydrogen Sulfide Odor (C1) Saturation (A3) Oxidized Rhizospheres on Living I Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Recent Iron Reduction in Tilled Sc Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) 	Dry-Season Water Table (C2)
Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Includes capillary fringe) Ves No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Remarks: Wetland hydrology observed at this Data Point.	

Sampling Point: DP-20

00.0	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r)		Species?		Number of Dominant Species
1. Acer rubrum	80	 ✓ 	FAC	That Are OBL, FACW, or FAC: 6 (A)
2. Carpinus caroliniana	20	 ✓ 	FAC	Total Number of Dominant
3				Species Across All Strata: <u>6</u> (B)
4				
5				Percent of Dominant Species That Are OBL EACW or EAC: 100 (A/B)
				That Are OBL, FACW, or FAC: 100 (A/B)
6	100%			Prevalence Index worksheet:
	<u>100%</u> :			Total % Cover of: Multiply by:
50% of total cover: 50	20% of	total cover	. 20	$\begin{array}{c c c c c c c c c c c c c c c c c c c $
Sapling Stratum (Plot size: 30 ft r)				
1. Carpinus caroliniana	30	~	FAC	FACW species $\frac{0}{155}$ x 2 = $\frac{0}{105}$
				FAC species $155 \times 3 = 465$
2				FACU species 0 x 4 = 0
3				UPL species 0 x 5 = 0
4			·	Column Totals: <u>165</u> (A) <u>475</u> (B)
5				
6				Prevalence Index = $B/A = 2.9$
	30%	= Total Cov	/er	Hydrophytic Vegetation Indicators:
500/ / · · · 15				1 - Rapid Test for Hydrophytic Vegetation
50% of total cover: <u>15</u>	20% of	total cover	: 0	✓ 2 - Dominance Test is >50%
Shrub Stratum (Plot size: <u>15 ft r</u>)				
1				<u>✓</u> 3 - Prevalence Index is ≤3.0 ¹
2				4 - Morphological Adaptations ¹ (Provide supporting
3				data in Remarks or on a separate sheet)
4				Problematic Hydrophytic Vegetation ¹ (Explain)
5			·	¹ Indicators of hydric soil and wetland hydrology must
6			·	be present, unless disturbed or problematic.
		= Total Cov	/er	Definitions of Five Vegetation Strata:
50% of total cover:	20% of	total cover	:	_
Herb Stratum (Plot size: 5 ft r)				Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
1. Athyrium angustum	20	~	FAC	(7.6 cm) or larger in diameter at breast height (DBH).
2 Carex frankii	10	~	OBL	
				Sapling – Woody plants, excluding woody vines,
3			·	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
4				
5				Shrub – Woody plants, excluding woody vines,
6				approximately 3 to 20 ft (1 to 6 m) in height.
7				Herb – All herbaceous (non-woody) plants, including
				herbaceous vines, regardless of size, and woody
8				plants, except woody vines, less than approximately 3
9				ft (1 m) in height.
10				Woody vine – All woody vines, regardless of height.
11				woody vine - All woody vines, regardless of height.
		-		
		= Total Cov	/er	
50% of total power: 15	30% :			
50% of total cover: <u>15</u>	30% :			
Woody Vine Stratum (Plot size: 30 ft r)	<u>30%</u> : 20% of	total cover	<u>.</u> 6	
	<u>30%</u> 20% of			
Woody Vine Stratum (Plot size: <u>30 ft r</u>)	<u>30%</u> 20% of 5	total cover	<u>.</u> 6	
<u>Woody Vine Stratum</u> (Plot size: <u>30 ft r</u>) 1. Smilax rotundifolia	<u>30%</u> 20% of 5	total cover	<u>.</u> 6	
Woody Vine Stratum (Plot size: 30 ft r) 1. Smilax rotundifolia 2	<u>30%</u> 20% of <u>5</u>	total cover	<u>-</u> 6 FAC	
<u>Woody Vine Stratum</u> (Plot size: <u>30 ft r</u>) 1. Smilax rotundifolia 2.	<u>30%</u> 20% of <u>5</u>	total cover	<u>-</u> 6 FAC	
Woody Vine Stratum (Plot size: 30 ft r) 1. Smilax rotundifolia 2	<u>30%</u> 20% of 5 	total cover ✓	<u>FAC</u>	Hydrophytic
Woody Vine Stratum (Plot size: 30 ft r) 1. Smilax rotundifolia 2	<u>30%</u> 20% of 5 	total cover	<u>FAC</u>	Vegetation
Woody Vine Stratum (Plot size: 30 ft r) 1. Smilax rotundifolia 2	<u>30%</u> 20% of 5 5 5 5%	total cover	<u>FAC</u>	

Hydrophytic vegetation dominates this Data Point.

SOIL

Profile Desc	ription: (Describe	to the de	oth needed to docur	nent the	indicator	or confirn	the absence of indicators	.)		
Depth	Matrix		Redo	x Feature	es					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks		
0 - 6	10YR 4/1	95	5YR 5/8	5	С	М	Clay			
6 - 16	10YR 5/1	65	5YR 6/8	45	С	М	Clay			
-		_								
-		_								
		_								
-										
-										
-										
-										
¹ Type: C=Co	oncentration, D=Dep	letion, RM	l=Reduced Matrix, MS	S=Maske	d Sand Gr	ains.	² Location: PL=Pore Lining	M=Matrix.		
Hydric Soil			, , , , , , , , , , , , , , , , , , , ,					lematic Hydric Soils ³ :		
<u> </u>	(A1)		Dark Surface	e (S7)			2 cm Muck (A10	D) (MLRA 147)		
Histic Ep	oipedon (A2)		Polyvalue Be	low Surfa	ace (S8) (/ILRA 147,	148) Coast Prairie R	edox (A16)		
Black Hi	stic (A3)		Thin Dark Su	Irface (SS) (MLRA '	147, 148)	(MLRA 147,	148)		
Hydroge	n Sulfide (A4)		Loamy Gleye	ed Matrix	(F2)		Piedmont Floor	lplain Soils (F19)		
Stratified	l Layers (A5)		Depleted Ma	trix (F3)			(MLRA 136,	147)		
2 cm Mu	ick (A10) (LRR N)		Redox Dark	Surface (F6)		Very Shallow D	ark Surface (TF12)		
	Below Dark Surfac	e (A11)	Depleted Da	rk Surfac	, e (F7)		Other (Explain i			
	ark Surface (A12)		Redox Depre					,		
	lucky Mineral (S1) (I		Iron-Mangan							
-	147, 148)	,	MLRA 13		503 (112)	LIXIX I X ,				
	leyed Matrix (S4)		Umbric Surfa		(MI RA 13	86 122)	³ Indicators of hydr	ophytic vegetation and		
	edox (S5)		Piedmont Flo							
-	Matrix (S6)		Red Parent N							
	ayer (if observed):					A 127, 14		or problematic.		
Type:										
Depth (ind							Hydric Soil Present?	res 🖌 No		
Remarks:										
Hydric s	oil was obse	rved a	t this Data Po	nint						
i iyano s		10000		////						

Project/Site: 161 Data Center	City/County: Prince William County	Sampling Date: 2020-06-09
Applicant/Owner: Land Design Consultants, Inc.	State: Virgi	nia Sampling Point: DP-21
Investigator(s): J. Moore, S. Swartzendruber	Section, Township, Range:	
	cal relief (concave, convex, none): Concave	Slope (%): <u>5</u>
Subregion (LRR or MLRA): <u>S 148</u> Lat: <u>38.623962</u>	4 Long:77.4214084	Datum: WGS 84
Soil Map Unit Name: Meadowville Ioam	NWI class	sification: N/A
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes 🖌 No (If no, explain i	n Remarks.)
Are Vegetation, Soil, or Hydrology significantly	v disturbed? Are "Normal Circumstance	s" present? Yes 🔽 No
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If needed, explain any ans	wers 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 _	No No No	Is the Sampled Area within a Wetland?	Yes	No		
Remarks:							
Upland Data Point 21 taken outside wetland flag GC7.							

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) High Water Table (A2) Saturation (A3) Water Marks (B1) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water Stained Leaves (B9) Aquatic Fauna (B13) 	 Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2)
Field Observations:	
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective)	Wetland Hydrology Present? Yes No tions), if available:
Remarks: Wetland hydrology was not observed at this Data Poin	t.

Sampling Point: DP-21

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r)		Species?		Number of Dominant Species
_{1.} Quercus alba	60	~	FACU	That Are OBL, FACW, or FAC: 1 (A)
2 Liriodendron tulipifera	40	~	FACU	
3			·	Total Number of Dominant
3				Species Across All Strata: 6 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 17 (A/B)
6				
	100%	= Total Cov	ver	Prevalence Index worksheet:
50% of total cover: 50	20% of	total cover	. 20	Total % Cover of: Multiply by:
· · · · · · · · · · · · · · · · · · ·	20 % 01		·	OBL species 0 x 1 = 0
Sapling Stratum (Plot size: <u>30 ft r</u>)	10	,		FACW species 0 x 2 = 0
1. Fagus grandifolia	10	~	FACU	FAC species <u>10</u> x 3 = <u>30</u>
2. Liquidambar styraciflua	10	~	FAC	FACU species 130 x 4 = 520
3. Quercus alba	10	~	FACU	$\begin{array}{c} 1 \text{ Hole species} \\ \hline \\ \text{UPL species} \\ \hline \\ 0 \\ \text{x 5 = } \\ \hline \\ \end{array}$
4				Column Totals: 140 (A) 550 (B)
5				Column Totals: <u>140</u> (A) <u>550</u> (B)
			·	Prevalence Index = B/A = <u>3.9</u>
6	000/	Tatal Oas		
	00/0	= Total Cov	/er	Hydrophytic Vegetation Indicators:
50% of total cover: 15	20% of	total cover	6	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 15 ft r)				2 - Dominance Test is >50%
1				3 - Prevalence Index is ≤3.0 ¹
				4 - Morphological Adaptations ¹ (Provide supporting
2				data in Remarks or on a separate sheet)
3				Problematic Hydrophytic Vegetation ¹ (Explain)
4				
5				¹ Indicators of hydric soil and wetland hydrology must
6				be present, unless disturbed or problematic.
	:	= Total Cov	ver	Definitions of Five Vegetation Strata:
				Demilions of Five vegetation Strata.
50% of total cover:	20% of	total cover		Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r)				approximately 20 ft (6 m) or more in height and 3 in.
_{1.} Fagus grandifolia	10	v	FACU	(7.6 cm) or larger in diameter at breast height (DBH).
2				Sapling – Woody plants, excluding woody vines,
3				approximately 20 ft (6 m) or more in height and less
4				than 3 in. (7.6 cm) DBH.
				Shrub – Woody plants, excluding woody vines,
			·	approximately 3 to 20 ft (1 to 6 m) in height.
6				
7				Herb - All herbaceous (non-woody) plants, including
8				herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3
9				ft (1 m) in height.
10				
				Woody vine – All woody vines, regardless of height.
11	10%	T () O		
_	10%			
50% of total cover: 5	10%			
Woody Vine Stratum (Plot size: 30 ft r)	20% of	total cover	2	
Woody Vine Stratum (Plot size: 30 ft r)	20% of	total cover	2	
Woody Vine Stratum (Plot size: 30 ft r) 1 2	20% of	total cover	2	
Woody Vine Stratum (Plot size: 30 ft r) 1	20% of	total cover	2	
Woody Vine Stratum (Plot size: 30 ft r) 1	20% of	total cover	2	
Woody Vine Stratum (Plot size: 30 ft r) 1 2 3 3	20% of	total cover	2	Hydrophytic
Woody Vine Stratum (Plot size: _30 ft r) 1 2 3 4	20% of	total cover	2	Hydrophytic Vegetation
Woody Vine Stratum (Plot size: _30 ft r) 1 2 3 4 5 5	20% of	total cover	2	
Woody Vine Stratum (Plot size: 30 ft r) 1	20% of	total cover	2	Vegetation

Hydrophytic vegetation does not dominate this Data Point.

SOIL

Sampling Point: DP-21

Profile Desc	ription: (Describe	to the de	pth needed to docum	nent the	indicator	or confirn	rm the absence of indicators.)
Depth	Matrix			x Feature			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks
0 - 4	10YR 3/2	100		. <u> </u>			Silty clay
4 - 16	10YR 5/1	80	10YR 5/8	20	С	Μ	Silty clay
-							
					·		
			·		·	·	
-					·		
-							
-							
					·		
					·	·	
-			·				
		letion, RN	I=Reduced Matrix, MS	S=Maske	d Sand Gr	ains.	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil I							Indicators for Problematic Hydric Soils ³ :
Histosol			Dark Surface		(0.0) (1		2 cm Muck (A10) (MLRA 147)
	ipedon (A2)		Polyvalue Be		· / ·		
Black His	n Sulfide (A4)		Thin Dark Su Loamy Gleye			147, 148)	(MLRA 147, 148) Piedmont Floodplain Soils (F19)
	Layers (A5)		Loanty Gleye		(Г2)		(MLRA 136, 147)
	ck (A10) (LRR N)		Redox Dark S		F6)		Very Shallow Dark Surface (TF12)
	Below Dark Surfac	e (A11)	Depleted Dar	`	,		Other (Explain in Remarks)
	rk Surface (A12)	. ,	Redox Depre				
Sandy M	ucky Mineral (S1) (I	LRR N,	Iron-Mangan	ese Mass	ses (F12) (LRR N,	
	. 147, 148)		MLRA 13				
-	leyed Matrix (S4)		Umbric Surfa				³ Indicators of hydrophytic vegetation and
-	edox (S5)		Piedmont Flo				
	Matrix (S6) .ayer (if observed):		Red Parent N	laterial (F	-21) (MLR	A 127, 14	47) unless disturbed or problematic.
_							
Type:							
	:hes):						Hydric Soil Present? Yes No
Remarks:							
Hydric s	oil was obse	rved a	nt this Data Po	oint.			
2							

Project/Site: 161 Data Center	City/County: Prince William Cou	nty Sampling Date: 2020-06-09	9
Applicant/Owner: Land Design Consultants, Inc.	Sta	ate: Virginia Sampling Point: DP-22	
Investigator(s): J. Moore, S. Swartzendruber	Section, Township, Range:	· · ·	
Landform (hillslope, terrace, etc.): Upland, Hillslope Lo	cal relief (concave, convex, none): <u>I</u>	None Slope (%): <u>10</u>	
Subregion (LRR or MLRA): <u>S 148</u> Lat: <u>38.6239624</u>	4 Long: <u>-77.421</u>	4084 Datum: WGS 84	
Soil Map Unit Name: Meadowville loam		NWI classification: N/A	
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes 🖌 No (If no	, explain in Remarks.)	
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "Normal Circu	umstances" present? Yes 🗹 No	
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If needed, explai	n 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	No_ 🖌 No_ 🖌 No _ 🖌	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					
Upland Data Point 22 t	aken outs	ide wetland	flag G108.		

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) True Aquatic Plants (B14) High Water Table (A2) Hydrogen Sulfide Odor (C1) Saturation (A3) Oxidized Rhizospheres on Living I Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Recent Iron Reduction in Tilled Sc Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13)	Dry-Season Water Table (C2)
Field Observations: Surface Water Present? Yes No _ Depth (inches): Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) No _ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective)	Wetland Hydrology Present? Yes No tions), if available:
Remarks: Wetland hydrology was not observed at this Data Poin	t.

Sampling Point: DP-22

20.4	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r)		Species?		Number of Dominant Species
1. Quercus alba	60	 ✓ 	FACU	That Are OBL, FACW, or FAC: 0 (A)
2. Fagus grandifolia	40	~	FACU	Total Number of Dominant
3				Species Across All Strata: <u>3</u> (B)
4				
5				Percent of Dominant Species That Are OBL_EACW_or_EAC: 0 (A/B)
				That Are OBL, FACW, or FAC: 0 (A/B)
6	100%			Prevalence Index worksheet:
		= Total Cov		Total % Cover of: Multiply by:
50% of total cover: 50	20% of	total cover:	20	$\begin{array}{c} \hline \hline \\ $
Sapling Stratum (Plot size: 30 ft r				0
1. Fagus grandifolia	30	~	FACU	FACW species $\frac{0}{2}$ x 2 = $\frac{0}{2}$
				FAC species $0 \times 3 = 0$
2				FACU species 130 x 4 = 520
3				UPL species $0 \times 5 = 0$
4				Column Totals: <u>130</u> (A) <u>520</u> (B)
5				
6				Prevalence Index = B/A = 4.0
	30%	= Total Cov	er	Hydrophytic Vegetation Indicators:
F00/ - ()- (1E				1 - Rapid Test for Hydrophytic Vegetation
50% of total cover: <u>15</u>	20% of	total cover:	5	2 - Dominance Test is >50%
Shrub Stratum (Plot size: <u>15 ft r</u>)				
1				3 - Prevalence Index is ≤3.0 ¹
2				4 - Morphological Adaptations ¹ (Provide supporting
3				data in Remarks or on a separate sheet)
4				Problematic Hydrophytic Vegetation ¹ (Explain)
5				¹ Indicators of hydric soil and wetland hydrology must
6				be present, unless disturbed or problematic.
		= Total Cov	ər	Definitions of Five Vegetation Strata:
50% of total cover:	20% of	total cover:		_
Herb Stratum (Plot size: 5 ft r)				Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
				(7.6 cm) or larger in diameter at breast height (DBH).
1				
2				Sapling – Woody plants, excluding woody vines,
3				approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
4				
5				Shrub – Woody plants, excluding woody vines,
6				approximately 3 to 20 ft (1 to 6 m) in height.
7				Herb – All herbaceous (non-woody) plants, including
				herbaceous vines, regardless of size, and woody
8				plants, except woody vines, less than approximately 3
9				ft (1 m) in height.
10				Woody vine – All woody vines, regardless of height.
11				woody vine - All woody vines, regardless of height.
		= Total Cov	ər	
E00/ of total cover	200/ of	total aquar		
50% of total cover:	20% of	total cover:		
Woody Vine Stratum (Plot size: <u>30 ft r</u>)				
1				
2				
3				
4				
5				Hydrophytic
		= Total Cov	ər	Vegetation
50% of total cover:	20% of	total cover:		Present? Yes No
Remarks: (Include photo numbers here or on a separate	sheet.)			

Hydrophytic vegetation does not dominate this Data Point.

Profile Desc	ription: (Describe	to the depth	n needed to docum	nent the ir	ndicator o	or confirn	n the absence	of indicato	rs.)
Depth	Matrix			Features	;				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks
0 - 8	10YR 3/4	100					Sandy loam		
8 - 16	10YR 5/2	100					Sandy loam		
-									
·									
-									
-									
-									
_									
			<u> </u>						
-									
¹ Type: C=Ce	oncentration, D=Dep	letion, RM=F	Reduced Matrix, MS	=Masked	Sand Gra	ains.	² Location: Pl		
Hydric Soil	Indicators:						Indica	ators for Pro	oblematic Hydric Soils ³ :
Histosol	. ,		Dark Surface					cm Muck (A	10) (MLRA 147)
	pipedon (A2)		Polyvalue Bel				148) C	oast Prairie	Redox (A16)
Black Hi	()		Thin Dark Sui	. ,	•	47, 148)		(MLRA 147	
	n Sulfide (A4)		Loamy Gleye		=2)		P		odplain Soils (F19)
Stratified	d Layers (A5)		Depleted Mat	rix (F3)				(MLRA 136	5, 147)
	ıck (A10) (LRR N)		Redox Dark S		,			•	Dark Surface (TF12)
Depleted	d Below Dark Surfac	e (A11)	Depleted Dar	k Surface	(F7)		0	ther (Explain	n in Remarks)
Thick Da	ark Surface (A12)		Redox Depres	ssions (F8	3)				
Sandy M	lucky Mineral (S1) (I	LRR N,	Iron-Mangane	ese Masse	es (F12) (l	_RR N,			
MLRA	A 147, 148)		MLRA 136	5)					
Sandy G	leyed Matrix (S4)		Umbric Surfac	ce (F13) (I	MLRA 13	6, 122)	³ Indi	icators of hy	drophytic vegetation and
Sandy R	edox (S5)		Piedmont Flo	odplain Sc	oils (F19)	(MLRA 14	18) we	tland hydrol	ogy must be present,
	Matrix (S6)		Red Parent M	laterial (F2	21) (MLR	A 127, 147	7) unl	less disturbe	ed or problematic.
Restrictive I	_ayer (if observed)								
Туре:									
Depth (in	ches):						Hydric Soil	Present?	Yes No
Remarks:									
Hydric s	oil was not o	bserved	d at this Data	a Point	t.				

Project/Site: 161 Data Center	City/County: Prince William County	Sampling Date: 2020-06-09
Applicant/Owner: Land Design Consultants, Inc.	State: Virginia	Sampling Point: DP-23
Investigator(s): J. Moore, S. Swartzendruber	Section, Township, Range:	
Landform (hillslope, terrace, etc.): Upland, Swale	cal relief (concave, convex, none): None	Slope (%): <u>2</u>
Subregion (LRR or MLRA): S148 Lat: 38.6342468	B Long: -77.4084717	Datum: WGS 84
Soil Map Unit Name: Neabsco loam	NWI classific	cation: N/A
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes 🖌 No (If no, explain in R	Remarks.)
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If needed, explain any answe	ers 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	No V No V No V	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					
Upland Data Point 23 ta	aken upgra	adient of wetl	land flag H1.		

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) High Water Table (A2) Saturation (A3) Oxidized Rhizospheres on Living I Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Recent Iron Reduction in Tilled Sc Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) 	Dry-Season Water Table (C2)
Field Observations: Surface Water Present? Yes No _ Depth (inches): Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) No _ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	Wetland Hydrology Present? Yes No tions), if available:
Remarks: Wetland hydrology was not observed at this Data Poin	t.

Sampling Point: DP-23

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r)		Species?		
Liriodendron tulipifera	60	V	FACU	Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
	20	~	FACU	That Ale OBE, FACW, of FAC. $\underline{-}$ (A)
				Total Number of Dominant
3. Quercus falcata	20	 ✓ 	FACU	Species Across All Strata: 6 (B)
4				
				Percent of Dominant Species
5			·	That Are OBL, FACW, or FAC: <u>33</u> (A/B)
6				Prevalence Index worksheet:
	100%	= Total Cov	rer	
50% of total cover: 50	000/	4-4-1	20	Total % Cover of: Multiply by:
	20% of	total cover:		OBL species $0 x 1 = 0$
Sapling Stratum (Plot size: 30 ft r)				FACW species 0 x 2 = 0
_{1.} Ilex opaca	20	~	FACU	
2. Acer rubrum	5	~	FAC	FAC species 35 x 3 = 105
2				FACU species <u>120</u> x 4 = <u>480</u>
3				UPL species $0 \times 5 = 0$
4				Column Totals: 155 (A) 585 (B)
5				Column Totals. (A) (B)
				5 4 54 38
6	05%		·	Prevalence Index = B/A = <u>3.8</u>
	25%	= Total Cov	er	Hydrophytic Vegetation Indicators:
50% of total cover: 13	20% of	total covor	5	1 - Rapid Test for Hydrophytic Vegetation
	20% 01			2 - Dominance Test is >50%
Shrub Stratum (Plot size: 15 ft r)				
1				3 - Prevalence Index is ≤3.0 ¹
2				4 - Morphological Adaptations ¹ (Provide supporting
				data in Remarks or on a separate sheet)
3			·	Problematic Hydrophytic Vegetation ¹ (Explain)
4				
5				
				¹ Indicators of hydric soil and wetland hydrology must
6			·	be present, unless disturbed or problematic.
		= Total Cov	rer	Definitions of Five Vegetation Strata:
50% of total cover:				Definitions of Five Vegetation Strata:
50% of total cover:				Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r)	20% of	total cover:	:	Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: 5 ft r)	20% of	total cover:		Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Athyrium angustum	20% of 30	total cover:	FAC	Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
Herb Stratum (Plot size: 5 ft r) 1. Athyrium angustum 2.	20% of 30	total cover:	FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines,
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Athyrium angustum	20% of 30	total cover:	FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Athyrium angustum 2.	20% of 30	total cover:	FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r) 1. Athyrium angustum 2.	20% of 30	total cover:	FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
Herb Stratum (Plot size: 5 ft r) 1. Athyrium angustum 2	20% of 30 	total cover:	FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
Herb Stratum (Plot size: 5 ft r 1. Athyrium angustum 2. 3. 4. 5. 6.	20% of 30 		FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Athyrium angustum 2	20% of 30 		FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including
Herb Stratum (Plot size: 5 ft r) 1. Athyrium angustum 2	20% of 		FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
Herb Stratum (Plot size: 5 ft r) 1. Athyrium angustum 2	20% of 		FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3
Herb Stratum (Plot size: 5 ft r) 1. Athyrium angustum 2	20% of 		FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
Herb Stratum (Plot size: 5 ft r) 1. Athyrium angustum 2	20% of 		FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Athyrium angustum 2. 2	20% of 		FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3
Herb Stratum (Plot size: 5 ft r) 1. Athyrium angustum 2	20% of 		FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Athyrium angustum 2. 3	20% of 	total cover:	FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Athyrium angustum 2. 3	20% of 	total cover:	FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Athyrium angustum 2. 3	20% of 	total cover:	FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Athyrium angustum 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover: <u>15</u> Woody Vine Stratum (Plot size: <u>30 ft r</u>)	20% of 	total cover:	FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Athyrium angustum 2	20% of 	total cover:	FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Athyrium angustum 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover: <u>15</u> Woody Vine Stratum (Plot size: <u>30 ft r</u>)	20% of 	total cover:	FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Athyrium angustum 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover: <u>15</u> Woody Vine Stratum (Plot size: <u>30 ft r</u>) 1. 2.	20% of 30 	total cover:	FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Athyrium angustum 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover: <u>15</u> Woody Vine Stratum (Plot size: <u>30 ft r</u>) 1. 2. 3.	20% of 30 	total cover:	FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Athyrium angustum 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover: <u>15</u> Woody Vine Stratum (Plot size: <u>30 ft r</u>) 1. 2. 3. 4.	20% of 30 	total cover:	FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Athyrium angustum 2	20% of 30 	total cover:	FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Athyrium angustum 2	20% of 30 	total cover:	FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Athyrium angustum 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover: <u>15</u> Woody Vine Stratum (Plot size: <u>30 ft r</u>) 1. 2. 3. 4. 5.	20% of 30 	total cover:	FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Athyrium angustum 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover: <u>15</u> Woody Vine Stratum (Plot size: <u>30 ft r</u>) 1. 2. 3. 4.	20% of 30 	total cover:	FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.

Hydrophytic vegetation does not dominate this Data Point.

Profile Desc	ription: (Describe	to the dept	h needed to docun	nent the in	ndicator	or confirm	n the absence	e of indicato	rs.)	
Depth	Matrix			K Features		2				
(inches)	Color (moist)	%	Color (moist)	%	Type'	Loc ²	Texture	·	Remarks	<u> </u>
0 - 16	10YR 5/4	100					Silt Loam			
-										
-										
				<u> </u>						
								·		<u>.</u>
-										
-										
-										
				<u> </u>						
-										
-										
¹ Type: C=Co	oncentration, D=Dep	letion, RM=	Reduced Matrix, MS	S=Masked	Sand Gra	ains.	² Location: F	PL=Pore Linii	ng, M=Matrix.	
Hydric Soil I	ndicators:								oblematic Hy	
Histosol	(A1)		Dark Surface	(S7)				2 cm Muck (A	(MLRA 1	47)
Histic Ep	ipedon (A2)		Polyvalue Be	low Surfac	e (S8) (M	ILRA 147,	148)	Coast Prairie	Redox (A16)	
Black Hi			Thin Dark Su	rface (S9)	(MLRA 1	47, 148)		(MLRA 14		
	n Sulfide (A4)		Loamy Gleye		-2)				odplain Soils	(F19)
	Layers (A5)		Depleted Mat					(MLRA 13		
	ck (A10) (LRR N)		Redox Dark S		,				Dark Surface	
	Below Dark Surfac	e (A11)	Depleted Dar				0	Other (Explai	n in Remarks)
	rk Surface (A12)		Redox Depre							
	lucky Mineral (S1) (I	LKK N,	Iron-Mangane MLRA 13		es (F12) (I	LKK N,				
	147, 148) leyed Matrix (S4)		Umbric Surfa		MI PA 13	6 122)	³ In	dicators of h	/drophytic veg	netation and
	edox (S5)		Piedmont Flo						logy must be	
	Matrix (S6)		Red Parent M					-	ed or problem	
	ayer (if observed):						·) u			
Type:	,,,.									
	ches):						Hydric Soi	il Present?	Yes	No 🖌
Remarks:							Ilyano oo		100	
Remarks.										
Hydric s	oil was not o	bserve	d at this Dat	a Point	t.					
-										

Project/Site: 161 Data Center	City/County: Prince William County	
Applicant/Owner: Land Design Consultants, Inc.	State:	Virginia Sampling Point: DP-24
Investigator(s): J. Moore, S. Swartzendruber	Section, Township, Range:	
Landform (hillslope, terrace, etc.): Upland, Swale	cal relief (concave, convex, none): Linea	ar Slope (%): 2
Subregion (LRR or MLRA): <u>S 148</u> Lat: <u>38.634246</u>	B Long:77.4084712	7 Datum: WGS 84
Soil Map Unit Name: Neabsco Ioam	NWI	classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes 🖌 No (If no, exp	lain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "Normal Circumst	ances" present? Yes 🔽 No
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If needed, explain any	y 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	No 🖌 No 🖌 No 🖌	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					
Upland Data Point 24 ta	aken dow	ngradient of v	vetland flag H13.		

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)	 Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2)
Field Observations: Surface Water Present? Yes No _ Depth (inches): Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	Wetland Hydrology Present? Yes No tions), if available:
Remarks: Wetland hydrology was not observed at this Data Poin	t.

Sampling Point: DP-24

Tree Stratum (Plot size: 30 fr	00 (Absolute	Dominant	Indicator	Dominance Test worksheet:
1. Accer tubrum 00 ✓ FACU FACU That Arro DBL FACW, of FAC: 2 (A) 3. Quercus alba 20 ✓ FACU Total Number of Dominant 6 (B) 4.	Tree Stratum (Plot size: 30 ft r)				Number of Dominant Species
Journer Total Number of Dominant Edit (B) 4	••			·	
3. Outerous alba 20 ✓ FACU Species Across All Strata: 6 (B) 6. 100%. = Total Cover 20% of total cover. 20 ✓ NI 7. 20% of total cover. 20 ✓ NI FACU Species Across All Strata: 6 33 (A) 8. 100%. = Total Cover 20% of total cover. 20 ✓ NI FACU Species 0 × 1 = 0 FACU Species 0 × 2 = 0 × 1 = 0 FACU Species 0 × 2 = 0 × 1 = 0 FACU Species 0 × 2 = 0 × 1 = 0 FACU Species 0 × 2 = 0 × 1 = 0 FACU Species 0 × 2 = 0 × 1 = 0 FACU Species 0 × 2 = 0 × 1 = 0 FACU Species 0 × 2 = 0 × 1 = 20 ✓ FACU Species 0 × 2 = 0 × 1 = 20 ✓ FACU Species 0 × 2 = 0 × 1 = 20 ✓ FACU Species 0 × 2 = 0 × 1 = 20 ✓ FACU Species 0 × 2 = 0 × 1 = 20 ✓ FACU Species 0 × 2 = 0 × 1 = 20 ✓ Species 10			 ✓ 		Total Number of Dominant
5. Image: Second Se	3. Quercus alba	20	~	FACU	\sim
5. Image: Second Se	4.				
6. 100% = Total Cover 5. 20% of total cover: 20 ✓ 1. Carya tomentosa 20 ✓ N 1. Carya tomentosa 20 ✓ N 3. Acer tubrum 5 FAC FAC 4. - - - 5. FAC Species 0 x.5 = 0 4. - - - - 5. FAC Species 0 x.5 = 0 6. - - - - - 5. 50% of total cover: 20% of total cover: 9 - - - 1. - <					
100% = Total Cover Total Accert of the worksheet: Multiply by: Sapling Stratum (Plot size: 30 fr					$\begin{array}{c} \text{Indiate OBL, FACW, OF FAC.} \\ \hline \begin{array}{c} \text{OBL} \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \begin{array}{c} \text{OBL} \end{array} \\ \hline \end{array} \\ \\ \hline \end{array} \\ \\ \hline \end{array} \\ \hline \end{array} \\ \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \\ \hline \end{array} \\ \hline \end{array} \\ \\ \\ \hline \end{array} \\ \\ \hline \end{array} \\ \\ \\ \hline \end{array} \\ \\ \end{array} \\ \\ \\ \\$
50% of total cover: 20% Of total cover: 20 Total % Cover of Multiply by: Sapting Stratum (Plot size: 30 (tr) 1 0 FACU		100%	- Total Cov		Prevalence Index worksheet:
Saalau (Plot size: 30 ft r	50				Total % Cover of: Multiply by:
Stabling (Plot size: 3011		20% of	total cover:		OBL species 0 x 1 = 0
1_Carrys tomentosa 20 V NI 3_Acer rubrum 5 FACU FACU species 75 x 3 = 225 7_ACU species 0 x 5 = 0 Column Column Column Column Column Column X 5 = 0 Column Column Column Column Column Column X 5 = 0 Column Column Column Column Column Column X 6 = 240 With Column Column Column X 6 = 240 With Column Column Column Column Column Column Column <td></td> <td></td> <td></td> <td></td> <td></td>					
2 20 V FAC 3. Acer rubrum 5 FAC 4			~		
3. Accer rubrum 5 Prc 4.			 ✓ 		
4	3. Acer rubrum	5		FAC	
5.	4				
6. 45% = Total Cover 50% of total cover: 23 20% of total cover: 9					Column Lotais: $(A) \rightarrow (B)$
45% = Total Cover 50% of total cover: 23 20% of total cover: -					Prevalence Index = $B/A = 3.4$
50% of total cover: 2 20% of total cover: 9 1		45%	- Total Cov	/er	
Shrub Stratum (Plot size: 15 m					
1		20% of	total cover:	9	
2	Shrub Stratum (Plot size: 15 III)				
3	1				
3.	2				4 - Morphological Adaptations' (Provide supporting
4	3				
5.					Problematic Hydrophytic Vegetation (Explain)
6.					
50% of total cover: 20% of total cover: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). 2.				/er	
Herb Stratum (Plot size: 5 ft r) 1					Definitions of Five Vegetation Strata:
1		20% of	total cover:	·	Tree – Woody plants, excluding woody vines,
2	Herb Stratum (Plot size: 511)				approximately 20 ft (6 m) or more in height and 3 in.
3.	1				(7.6 cm) or larger in diameter at breast height (DBH).
4.	2				
4	3				
6.	4				than 3 in. (7.6 cm) DBH.
6.	5.				Shrub – Woody plants, excluding woody vines,
7.	6				
8.					Harb All borbaccous (non woody) plants, including
9.					
10.				·	plants, except woody vines, less than approximately 3
11.					ft (1 m) in height.
$ \begin{array}{c} 11. _ _ = Total Cover \\ $				·	Woody vine – All woody vines, regardless of height.
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	11				·····, ·······························
Woody Vine Stratum (Plot size: 30 ft r) 10 \checkmark FAC 1. Smilax rotundifolia 10 \checkmark FAC 2.		:	= Total Cov	/er	
1. Smilax rotundifolia 10 \checkmark FAC 2.	50% of total cover:	20% of	total cover:	:	
1. Smilax rotundifolia 10 \checkmark FAC 2.	Woody Vine Stratum (Plot size: 30 ft r				
2 3 4 5 5. 50% of total cover: $550%$ of total cover: $520%$ of total cover: $2HydrophyticVegetationPresent? Yes No$	1 Smilax rotundifolia	10	~	FAC	
3.				·	
4					
5. 10% = Total Cover Hydrophytic 50% of total cover: 20% of total cover: Present? Yes No					
$\frac{10\%}{50\% \text{ of total cover: } 5} = \text{Total Cover} \qquad \text{Vegetation} \\ 20\% \text{ of total cover: } 2 \qquad \text{Present?} \qquad \text{Yes} \\ Yes$				·	
10% = Total Cover Vegetation 50% of total cover: 20% of total cover: 2	5				Hydrophytic
50% of total cover: <u>5</u> 20% of total cover: <u>2</u>		10%	= Total Cov	ver	Vegetation
	50% of total cover: 5	20% of	total cover:	2	Present? Yes No
	Remarks: (Include photo numbers here or on a separate	sheet.)			1

Hydrophytic vegetation does not dominate this Data Point.

Profile Desc	ription: (Describe	to the dept	th needed to docum	nent the i	ndicator o	or confirm	n the absence	e of indicators.)
Depth	Matrix		Redox	Features				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0 - 3	10YR 3/2	100					Silt Loam	
3 - 16	10YR 5/4	100					Silt Loam	
-								
-								
-								
-								
-								
-								
-								
-								
¹ Type: C=Co	oncentration, D=Dep	letion, RM=	Reduced Matrix, MS	=Masked	Sand Gra	ins.	² Location: F	PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators:							ators for Problematic Hydric Soils ³ :
Histosol	(A1)		Dark Surface	(S7)			2	2 cm Muck (A10) (MLRA 147)
	bipedon (A2)		Polyvalue Bel	. ,	ce (S8) (M	LRA 147.		Coast Prairie Redox (A16)
Black Hi	• • •		Thin Dark Sur				, <u> </u>	(MLRA 147, 148)
	n Sulfide (A4)		Loamy Gleye	. ,	•	,,	F	Piedmont Floodplain Soils (F19)
	d Layers (A5)		Depleted Mat		-)		— ·	(MLRA 136, 147)
	ick (A10) (LRR N)		Redox Dark S	. ,	6)		、	/ery Shallow Dark Surface (TF12)
	d Below Dark Surfac	o (A11)	Depleted Dark	•	,			Other (Explain in Remarks)
		e (ATT)	·		. ,			
	ark Surface (A12)		Redox Depres					
	lucky Mineral (S1) (I	LRR N,	Iron-Mangane		es (F12) (L	.RR N,		
	A 147, 148)		MLRA 136	,			0	
Sandy G	eleyed Matrix (S4)		Umbric Surface					dicators of hydrophytic vegetation and
Sandy R	edox (S5)		Piedmont Floor	odplain S	oils (F19)	(MLRA 14	l8) we	etland hydrology must be present,
	Matrix (S6)		Red Parent M	laterial (F	21) (MLR	A 127, 147	7) ur	less disturbed or problematic.
Restrictive I	_ayer (if observed):	:						
Туре:								
Depth (ind	ches):						Hydric Soi	l Present? Yes No
Remarks:								
Hydric s	oil was not o	bserve	d at this Data	a Poin	t.			

Project/Site: 161 Data Center	City/County: Prince William County	Sampling Date: 2020-06-10
Applicant/Owner: Land Design Consultants, Inc.	State: V	irginia Sampling Point: DP-25
Investigator(s): J. Moore, S. Swartzendruber	Section, Township, Range:	
Landform (hillslope, terrace, etc.): Upland, Hillslope	cal relief (concave, convex, none): None	Slope (%): <u>10</u>
Subregion (LRR or MLRA): <u>S 148</u> Lat: <u>38.6322632</u>	2 Long:77.4207259	Datum: WGS 84
Soil Map Unit Name: Hatboro-Codorus complex	NWI d	classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes 🖌 No (If no, expla	ain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "Normal Circumsta	nces" present? Yes 🗹 No
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If needed, explain 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 _	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					
Upland Data Point 25 ta	ken outsic	le wetland fla	ag WW5.		

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) High Water Table (A2) Saturation (A3) Water Marks (B1) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water Stained Leaves (B9) Aquatic Fauna (B13) 	 Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2)
Field Observations:	
Surface Water Present? Yes No _ Depth (inches): Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective)	Wetland Hydrology Present? Yes No tions), if available:
Remarks: Wetland hydrology was not observed at this Data Poin	t.

Sampling Point: DP-25

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r)	<u>% Cover</u>			Number of Dominant Species
1. Pinus virginiana	30	<i>✓</i>	NI	That Are OBL, FACW, or FAC: $\underline{3}$ (A)
2. Fagus grandifolia	20	~	FACU	Total Number of Dominant
3. Quercus phellos	20	~	FAC	Species Across All Strata: <u>6</u> (B)
4. Acer rubrum	10		FAC	Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 50 (A/B)
6				
	80% =	= Total Cov	/er	Prevalence Index worksheet:
50% of total cover: 40	20% of	total cover	. 16	$\begin{array}{c c} \hline Total \% Cover of: \\ \hline OPL species \\ 0 \\ \hline \end{array} \qquad \begin{array}{c} Multiply by: \\ y 1 = 0 \\ \hline \end{array}$
Sapling Stratum (Plot size: 30 ft r)				
1. Fagus grandifolia	30	~	FACU	FACW species $\frac{0}{50}$ x 2 = $\frac{0}{150}$
2. Liquidambar styraciflua	10	~	FAC	FAC species 50 x 3 = 150
			·	FACU species $\frac{50}{2}$ x 4 = 200
3				UPL species 0 x 5 = 0
4				Column Totals: 100 (A) 350 (B)
5				5 4 5 5 35
6				Prevalence Index = $B/A = 3.5$
	40% -	= Total Cov	/er	Hydrophytic Vegetation Indicators:
50% of total cover: <u>20</u>	20% of	total cover	: 8	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 15 ft r)				2 - Dominance Test is >50%
1				$_$ 3 - Prevalence Index is $\leq 3.0^{1}$
2				4 - Morphological Adaptations ¹ (Provide supporting
3				data in Remarks or on a separate sheet)
4			·	Problematic Hydrophytic Vegetation ¹ (Explain)
5				
6			·	¹ Indicators of hydric soil and wetland hydrology must
0				be present, unless disturbed or problematic.
				Definitions of Five Vegetation Strata:
50% of total cover:	20% of	total cover	:	Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r)				approximately 20 ft (6 m) or more in height and 3 in.
1				(7.6 cm) or larger in diameter at breast height (DBH).
2				Sapling – Woody plants, excluding woody vines,
3				approximately 20 ft (6 m) or more in height and less
4				than 3 in. (7.6 cm) DBH.
5.				Shrub – Woody plants, excluding woody vines,
6				
7				approximately 3 to 20 ft (1 to 6 m) in height.
			- <u> </u>	approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
8				Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3
8 9	- <u> </u>			Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
89 10				Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3
8 9			 	Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
89 10			 	Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
89 10		 = Total Cov	/er	Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
8 9 10 11		 = Total Cov	/er	Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
89 9 10 11 50% of total cover:		 = Total Cov	/er	Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
89	 	= Total Cov total cover	/er : FAC	Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
89 9 10 11 <u>50% of total cover:</u> <u>50% of total cover:</u> <u>50% of total cover:</u> <u>1</u>) <u>1</u> <u>Smilax rotundifolia</u> 2	= = 20% of 10	= Total Cov total cover	/er : FAC	Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
8	 	= Total Cov total cover	/er : FAC	Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
8	 	= Total Cov total cover	/er : FAC	 Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
8		= Total Cov total cover	FAC	 Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height. Hydrophytic
8.	= 	= Total Cov total cover	/er	 Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height. Hydrophytic Vegetation
8	 20% of 10 	= Total Cov total cover	/er	 Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height. Hydrophytic Vegetation

Hydrophytic vegetation does not dominate this Data Point.

SOIL

Sampling Point: DP-25

Profile Desc	ription: (Describe	to the dep	oth needed to docum	nent the i	indicator	or confirm	m the absence of indicators.)		
Depth	Matrix		Redo	x Feature	s				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks		
0 - 3	10YR 3/3	100				. <u> </u>	Silt Loam		
3 - 16	10YR 4/1	85	10YR 5/8	15	С	Μ	Silt Loam		
-									
-		<u> </u>				<u> </u>			
						<u> </u>			
-		. <u> </u>				. <u> </u>			
		. <u> </u>				. <u> </u>			
-		<u>.</u>				<u>.</u>			
-									
-									
¹ Type: C=Co	oncentration, D=Dep	letion, RM	=Reduced Matrix, MS	S=Masked	d Sand Gr	ains.	² Location: PL=Pore Lining, M=Matrix.		
Hydric Soil	ndicators:						Indicators for Problematic Hydric Soils ³	:	
Histosol	(A1)		Dark Surface	(S7)			2 cm Muck (A10) (MLRA 147)		
Histic Ep	oipedon (A2)		Polyvalue Be						
Black Hi			Thin Dark Su			147, 148)			
Hydroge	n Sulfide (A4)		Loamy Gleye	d Matrix ((F2)		Piedmont Floodplain Soils (F19)		
	l Layers (A5)		Depleted Mat				(MLRA 136, 147)		
2 cm Mu	ick (A10) (LRR N)		Redox Dark S	Surface (F	-6)		Very Shallow Dark Surface (TF12)		
Depleted	d Below Dark Surfac	e (A11)	Depleted Dar	k Surface	e (F7)		Other (Explain in Remarks)		
Thick Da	ark Surface (A12)		Redox Depre	ssions (F	8)				
Sandy M	lucky Mineral (S1) (I	RR N,	Iron-Mangan	ese Mass	es (F12) (LRR N,			
-	A 147, 148)		MLRA 13						
	leyed Matrix (S4)		Umbric Surfa		(MLRA 13	6. 122)	³ Indicators of hydrophytic vegetation and		
	edox (S5)		Piedmont Flo						
-	Matrix (S6)		Red Parent N						
	_ayer (if observed):			iatoriai (i					
Type:									
Depth (ind	ches):						Hydric Soil Present? Yes 🖌 No	_	
Remarks:							·		
Hvdric s	oils were ob	served	l at this Data	Point.					
,									

Project/Site: 161 Data Center	City/County: Prince William	Sampling Date: 2020-06-09
Applicant/Owner: Land Design Consultants, Inc.	State: Virginia	_ Sampling Point: DP-A
Investigator(s): J. Moore, M. Sellers, R. Freeman	_ Section, Township, Range:	
Landform (hillslope, terrace, etc.): Upland L	ocal relief (concave, convex, none): <u>None</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): <u>\$ 148</u> Lat: <u>38.630798</u>	Long: -77.4246023	Datum: WGS 84
Soil Map Unit Name: 27A Hatboro-Codorus Complex	NWI classifica	ation: N/A
Are climatic / hydrologic conditions on the site typical for this time of y	year? Yes 🖌 No (If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hydrology significant	ly disturbed? Are "Normal Circumstances" p	resent? Yes 🔽 No
Are Vegetation, Soil, or Hydrology naturally p	roblematic? (If needed, explain any answer	s 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 _✔	No No No	Is the Sampled Area within a Wetland?	Yes	No 🖌			
Remarks: Taken within uplands outside flag Z1.								
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) High Water Table (A2) Saturation (A3) Oxidized Rhizospheres on Living Water Marks (B1) Sediment Deposits (B2) Recent Iron Reduction in Tilled So Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) 	Dry-Season Water Table (C2)
Field Observations: Surface Water Present? Yes No _ Depth (inches): Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective	Wetland Hydrology Present? Yes <u>V</u> No <u></u> tions), if available:
Remarks: Wetland hydrology is observed in the vicinity.	

Sampling Point: DP-A

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r)		Species?		Number of Dominant Species
_{1.} Tilia americana	30	~	FACU	That Are OBL, FACW, or FAC: 1 (A)
2. Acer rubrum	20	~	FAC	
3. Liriodendron tulipifera	20	~	FACU	Total Number of Dominant
4 Fagus grandifolia	15		FACU	Species Across All Strata: 5 (B)
				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: <u>20</u> (A/B)
6				
	85%	= Total Cov	er	Prevalence Index worksheet:
50% of total cover: 43				Total % Cover of: Multiply by:
	20% of	total cover:		OBL species 0 x 1 = 0
Sapling Stratum (Plot size: 30 ft r)				FACW species 0 x 2 = 0
1				FAC species 20 x 3 = 60
2				
3				
				UPL species $0 \times 5 = 0$
4				Column Totals: <u>105</u> (A) <u>400</u> (B)
5				
6				Prevalence Index = B/A = <u>3.8</u>
	:	= Total Cov	er	Hydrophytic Vegetation Indicators:
50% of total cover:	200/ of	total any ar		1 - Rapid Test for Hydrophytic Vegetation
	20% 01	total cover		2 - Dominance Test is >50%
Shrub Stratum (Plot size: 15 ft r)				
1				3 - Prevalence Index is ≤3.0 ¹
2				4 - Morphological Adaptations ¹ (Provide supporting
3				data in Remarks or on a separate sheet)
				Problematic Hydrophytic Vegetation ¹ (Explain)
4				
5				¹ Indicators of hydric soil and wetland hydrology must
6				be present, unless disturbed or problematic.
	:	= Total Cov	er	Definitions of Five Vegetation Strata:
50% of total cover:	20% of	4-4-1		
	2070 01	total cover:		Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r)				approximately 20 ft (6 m) or more in height and 3 in.
<u>Herb Stratum</u> (Plot size: <u>5 ft r</u>) 1. Ilex opaca	10	~	FACU	
Herb Stratum (Plot size: 5 ft r)				approximately 20 ft (6 m) or more in height and 3 in.
<u>Herb Stratum</u> (Plot size: <u>5 ft r</u>) 1. Ilex opaca 2. Polystichum acrostichoides	10 10	<i>v</i> <i>v</i>	FACU FACU	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
<u>Herb Stratum</u> (Plot size: <u>5 ft r</u>) 1. Ilex opaca	10 10	<i>v</i> <i>v</i>	FACU FACU	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines,
<u>Herb Stratum</u> (Plot size: <u>5 ft r</u>) 1. Ilex opaca 2. Polystichum acrostichoides	10 10	<i>v</i> <i>v</i>	FACU FACU	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
Herb Stratum (Plot size: <u>5 ft r</u>) 1. <u>llex opaca</u> 2. <u>Polystichum acrostichoides</u> 3 4 5	<u>10</u> <u>10</u> 	<u> </u>	FACU FACU	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r) 1. Ilex opaca 2. Polystichum acrostichoides 3 4	<u>10</u> <u>10</u> 	<u> </u>	FACU FACU	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
Herb Stratum (Plot size: <u>5 ft r</u>) 1. <u>llex opaca</u> 2. <u>Polystichum acrostichoides</u> 3 4 5	<u>10</u> <u>10</u> 	<u> </u>	FACU FACU	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including
Herb Stratum (Plot size: 5 ft r) 1. Ilex opaca 2. Polystichum acrostichoides 3 4	<u>10</u> <u>10</u> 		FACU FACU	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
Herb Stratum (Plot size: 5 ft r) 1. Ilex opaca 2. Polystichum acrostichoides 3 4	10 10 		FACU FACU	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3
Herb Stratum (Plot size: 5 ft r) 1. Ilex opaca 2. Polystichum acrostichoides 3	<u>10</u> <u>10</u> 		FACU FACU	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Ilex opaca) 2. Polystichum acrostichoides 3	<u>10</u> <u>10</u> 		FACU FACU	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3
Herb Stratum (Plot size: 5 ft r) 1. Ilex opaca 2. Polystichum acrostichoides 3			FACU FACU	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Ilex opaca) 2. Polystichum acrostichoides 3			FACU FACU	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Ilex opaca) 2. Polystichum acrostichoides 3	<u>10</u> <u>10</u> 	✓ ✓ ✓	FACU FACU	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Ilex opaca . 2. Polystichum acrostichoides . 3	<u>10</u> <u>10</u> 	✓ ✓ ✓	FACU FACU	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Ilex opaca) 2. Polystichum acrostichoides 3.	10 10 	V	FACU FACU	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Ilex opaca) 2. Polystichum acrostichoides 3. 4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover: <u>10</u> Woody Vine Stratum (Plot size: <u>30 ft r</u>) 1.	10 10 	v	FACU FACU	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Ilex opaca) 2. Polystichum acrostichoides 3.	10 10 	v	FACU FACU	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Ilex opaca) 2. Polystichum acrostichoides 3. 4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover: <u>10</u> Woody Vine Stratum (Plot size: <u>30 ft r</u>) 1.	10 10 	Total Covers	FACU FACU	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Ilex opaca) 2. Polystichum acrostichoides 3.	10 10 20% -		FACU FACU	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
Herb Stratum (Plot size: 5 ft r) 1. Ilex opaca 2. Polystichum acrostichoides 3	10 10 20% 20% of	v	FACU FACU	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Ilex opaca) 2. Polystichum acrostichoides 3.	10 10 20% of		FACU FACU	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height. Hydrophytic
Herb Stratum (Plot size: 5 ft r) 1. Ilex opaca 2. Polystichum acrostichoides 3	10 10 20% of	v	FACU FACU	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height. Hydrophytic Vegetation
Herb Stratum (Plot size: 5 ft r) 1. Ilex opaca 2. Polystichum acrostichoides 3	10 10 20% 20% of		FACU FACU	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height. Hydrophytic

Hydrophytic vegetation is not dominant in the vicinity.

Profile Desc	ription: (Describe	to the depth	needed to docum	nent the in	ndicator o	or confirm	n the absence of indicators.)
Depth	Matrix			Features			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks
0 - 6	10YR 4/4	100					Silt Loam
-							
-							
							·
-							
-							
-							
-							
	oncentration, D=Depl	letion, RM=R	educed Matrix, MS	=Masked	Sand Gra	ains.	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil I							Indicators for Problematic Hydric Soils ³ :
Histosol	. ,		Dark Surface	. ,			2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Bel				
Black Hi	. ,		Thin Dark Sur	. ,	•	47, 148)	(MLRA 147, 148)
	n Sulfide (A4)		Loamy Gleye	•	F2)		Piedmont Floodplain Soils (F19)
	Layers (A5)		Depleted Mat	. ,			(MLRA 136, 147)
	ck (A10) (LRR N)		Redox Dark S	``	,		Very Shallow Dark Surface (TF12)
·	Below Dark Surface	e (A11)	Depleted Darl		. ,		Other (Explain in Remarks)
	ark Surface (A12) lucky Mineral (S1) (L		Redox Depres				
	147, 148)	.nn n,	MLRA 136		5 (F12) (-nn n ,	
	leyed Matrix (S4)		Umbric Surfac	,	MLRA 13	6, 122)	³ Indicators of hydrophytic vegetation and
	edox (S5)		Piedmont Flo				
Stripped	Matrix (S6)		Red Parent M	•	. ,	•	
Restrictive L	ayer (if observed):						
_{Type:} Gra	avel						
Depth (inc	ches): <u>6</u>						Hydric Soil Present? Yes No 🖌
							1

Remarks:

Hydric soil is not observed at this point.

Project/Site: 161 Data Center	City/County: Prince William	Sampling Date: 2020-06-09
Applicant/Owner: Land Design Consultants, Inc.	State: Virginia	_ Sampling Point: DP-B
Investigator(s): J. Moore, M. Sellers, R. Freeman	_ Section, Township, Range:	
Landform (hillslope, terrace, etc.): Depression	ocal relief (concave, convex, none): <u>None</u>	Slope (%): 2
Subregion (LRR or MLRA): <u>\$ 148</u> Lat: <u>38.634155</u>	3 Long: -77.4112521	Datum: WGS 84
Soil Map Unit Name: 27A Hatboro-Codorus Complex	NWI classifica	ation: N/A
Are climatic / hydrologic conditions on the site typical for this time of y	/ear? Yes 🖌 No (If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hydrology significantl	y disturbed? Are "Normal Circumstances" p	resent? Yes 🔽 No
Are Vegetation, Soil, or Hydrology naturally p	roblematic? (If needed, explain any answer	s 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 🖌	No No No	Is the Sampled Area within a Wetland?	Yes 🖌	No	
Remarks:						
Taken within PFO-wetlands inside flag ZA13.						

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) High Water Table (A2) Hydrogen Sulfide Odor (C1) Saturation (A3) Oxidized Rhizospheres on Living I Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Recent Iron Reduction in Tilled So Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) 	Dry-Season Water Table (C2)
Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Includes capillary fringe) No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Remarks: Wetland hydrology is observed in the vicinity.	

Sampling Point: DP-B

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r)		Species?		Number of Dominant Species
1. Acer rubrum	80	~	FAC	That Are OBL, FACW, or FAC: 2 (A)
2 Pinus taeda	40	~	FAC	
3. Fagus grandifolia	25		FACU	Total Number of Dominant
				Species Across All Strata: <u>3</u> (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: <u>67</u> (A/B)
6				
	145%	Tatal Car		Prevalence Index worksheet:
				Total % Cover of: Multiply by:
50% of total cover: 73	20% of	total cover:	29	$\begin{array}{c c} \hline \hline \\ $
Sapling Stratum (Plot size: 30 ft r				
				FACW species 0 x 2 = 0
1				FAC species <u>122</u> x 3 = <u>366</u>
2				FACU species <u>40</u> x 4 = <u>160</u>
3				
4				
				Column Totals: <u>162</u> (A) <u>526</u> (B)
5				2.2
6				Prevalence Index = B/A = 3.2
	=	= Total Cov	er	Hydrophytic Vegetation Indicators:
	000/ - (1 - Rapid Test for Hydrophytic Vegetation
50% of total cover:	20% of	total cover:		
Shrub Stratum (Plot size: 15 ft r)				✓ 2 - Dominance Test is >50%
1				3 - Prevalence Index is ≤3.0 ¹
2				4 - Morphological Adaptations ¹ (Provide supporting
				data in Remarks or on a separate sheet)
3				Problematic Hydrophytic Vegetation ¹ (Explain)
4				
5				1
6				¹ Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
		= Total Cov	er	Definitions of Five Vegetation Strata:
50% of total cover:	20% of	total cover:		The All March all of a control framework in the
Herb Stratum (Plot size: 5 ft r)				Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
/ llex opaca	15	V	FACU	(7.6 cm) or larger in diameter at breast height (DBH).
2. Smilax rotundifolia	2			
2. Similax rotunditolia	2		FAC	Sapling – Woody plants, excluding woody vines,
3				approximately 20 ft (6 m) or more in height and less
4				than 3 in. (7.6 cm) DBH.
ɔ				Shrub – Woody plants, excluding woody vines,
5 6	- <u></u>			
				Shrub – Woody plants, excluding woody vines,
7				Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
7 8				 Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3
7 8 9	- <u> </u>			 Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
7 8	- <u> </u>			 Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
7 8 9 10				 Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3
7 8 9				 Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
7	 	= Total Cov	 er	 Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
7	 	= Total Cov	 er	 Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
7	 	= Total Cov	 er	 Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
7		Total Cov	er 3	 Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
7		= Total Cov total cover:	er 3	 Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
7		= Total Cov total cover:	er 3	 Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
7		= Total Cov total cover:	er 3	 Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
7		= Total Cov total cover:	er 3	 Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
7		= Total Cov total cover:	er 3	 Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
7		= Total Cov total cover:	er 3	 Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height. Hydrophytic
7		= Total Cov total cover:	er 3	 Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
7.		Total Cover:	er 3	 Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height. Hydrophytic
7	 	Total Cover:	er 3	 Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.

Hydrophytic vegetation is dominant in the vicinity.

Profile Desc	ription: (Describe	to the dept	n needed to docum	nent the in	dicator o	or confirm	n the absence o	of indicator	s.)	
Depth	Matrix			x Features						
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0 - 12	7.5YR 3/1	100					Loamy Sand			
-										
		<u> </u>		<u> </u>						
		<u> </u>		<u> </u>						
-										
				·	·					
		······· ·		·						
-		<u> </u>		·			. <u> </u>			
-										
-										
¹ Type: C=Co	oncentration, D=Dep	etion RM=	Reduced Matrix MS	S=Masked	Sand Gra	ins	² Location: PL	=Pore Linin	n M=Matrix	
Hydric Soil									blematic Hydric Soi	ls³:
Histosol	(A1)		 Dark Surface 	(S7)					10) (MLRA 147)	
	pipedon (A2)		Polyvalue Be	· · ·	e (S8) (M	LRA 147.			Redox (A16)	
Black Hi	• • •		Thin Dark Su					(MLRA 147		
Hydroge	n Sulfide (A4)		Loamy Gleye	d Matrix (F	2)		Pie	edmont Floo	dplain Soils (F19)	
Stratified	d Layers (A5)		Depleted Ma	rix (F3)				(MLRA 136	, 147)	
	ick (A10) (LRR N)		Redox Dark	•	,				Dark Surface (TF12)	
	Below Dark Surface	e (A11)	Depleted Dar		` '		Ot	her (Explain	in Remarks)	
	ark Surface (A12)		Redox Depre		,					
-	1ucky Mineral (S1) (L	.RR N,	Iron-Mangan		s (⊦12) (L	.RR N,				
	A 147, 148) Gleyed Matrix (S4)		MLRA 13 Umbric Surfa	,		5 100)	³ India	otoro of by	drophytic vegetation a	nd
	edox (S5)		Piedmont Flo	. , .				•	gy must be present,	Ind
	Matrix (S6)		Red Parent N	•	. ,	•	•	•	d or problematic.	
	_ayer (if observed):					,				
Type:										
<u> </u>	ches):						Hydric Soil I	Prosont?	Yes 🖌 No	
							Tiyane Son I	Tesent:		
Remarks:										
Hydric s	oil is observe	ed at thi	is point.							

Project/Site: 161 Data Center	City/County: Prince William S	ampling Date: 2020-06-09
Applicant/Owner: Land Design Consultants, Inc.		Sampling Point: DP-C
Investigator(s): J. Moore, M. Sellers, R. Freeman	Section, Township, Range:	
	ocal relief (concave, convex, none): <u>None</u>	Slope (%): 2
Subregion (LRR or MLRA): <u>S 148</u> Lat: <u>38.629028</u>	3 _{Long:} 77.4239675	Datum: WGS 84
Soil Map Unit Name: 27A Hatboro-Codorus Complex	NWI classificati	ion: Freshwater Emergent
Are climatic / hydrologic conditions on the site typical for this time of y	ear? Yes 🗾 No (If no, explain in Ren	narks.)
Are Vegetation, Soil, or Hydrology significantly	y disturbed? Are "Normal Circumstances" pre	sent? Yes 🔽 No
Are Vegetation, Soil, or Hydrology naturally pl	roblematic? (If needed, explain 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 🖌	No No No	Is the Sampled Area within a Wetland?	Yes 🖌	No
Remarks:					
Taken within PFO-wetla	inds inside	e flag Y5.			
		-			

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
	Dry-Season Water Table (C2)
Field Observations: Surface Water Present? Yes No _ Depth (inches): Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Depth (inches): Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Depth (inches):	Wetland Hydrology Present? Yes <u>V</u> No <u>No</u> ions), if available:
Remarks:	
Wetland hydrology is observed in the vicinity.	

Sampling Point: DP-C

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r)	% Cover	Species?	Status	Number of Dominant Species
_{1.} Acer rubrum	30	~	FAC	That Are OBL, FACW, or FAC: 6 (A)
2. Liriodendron tulipifera	20	~	FACU	
3. Carya tomentosa	10		NI	Total Number of Dominant
				Species Across All Strata: / (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: <u>86</u> (A/B)
6				
	<u>60%</u>	= Total Cov	er	Prevalence Index worksheet:
50% of total cover: 30				Total % Cover of: Multiply by:
	20 % 01			OBL species 0 x 1 = 0
Sapling Stratum (Plot size: 30 ft r)				FACW species <u>32</u> x 2 = <u>64</u>
1				FAC species 50 x 3 = 150
2				FACU species 35 x 4 = 140
3				
4				
				Column Totals: <u>117</u> (A) <u>354</u> (B)
5				2 4 4 5 7 30
6				Prevalence Index = B/A = <u>3.0</u>
	<u> </u>	= Total Cov	er	Hydrophytic Vegetation Indicators:
50% of total cover:	20% of	total cover:		1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 15 ft r)				✓ 2 - Dominance Test is >50%
				✓ 3 - Prevalence Index is $\leq 3.0^1$
1				4 - Morphological Adaptations ¹ (Provide supporting
2				data in Remarks or on a separate sheet)
3				Problematic Hydrophytic Vegetation ¹ (Explain)
4				
5				
6				¹ Indicators of hydric soil and wetland hydrology must
0		Tatal Oa		be present, unless disturbed or problematic.
		= Total Cov	er	Definitions of Five Vegetation Strata:
50% of total cover:	20% of	total cover:		Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r)				approximately 20 ft (6 m) or more in height and 3 in.
1 Carex grayi	10	~	FACW	(7.6 cm) or larger in diameter at breast height (DBH).
2. Dichanthelium clandestinum	10	~	FAC	
3 Juncus effusus	10	~	FACW	Sapling – Woody plants, excluding woody vines,
··				approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
4. Microstegium vimineum	10	 ✓ 	FAC	
_{5.} Panicum dichotomiflorum	10	~	FACW	Shrub – Woody plants, excluding woody vines,
_{6.} Ilex opaca	5		FACU	approximately 3 to 20 ft (1 to 6 m) in height.
7 Polystichum acrostichoides	5		FACU	Herb – All herbaceous (non-woody) plants, including
8 Rosa multiflora	5		FACU	herbaceous vines, regardless of size, and woody
··-				plants, except woody vines, less than approximately 3
9. Carex pallescens	2		FACW	ft (1 m) in height.
10				Mandara Allera de Cara a constitue de la const
11				Woody vine – All woody vines, regardless of height.
		= Total Cov	er	
24				
50% of total cover: <u>34</u>	20% of	total cover:	13	
Woody Vine Stratum (Plot size: 30 ft r)				
1				
2				
3				
4				
5				Hydrophytic
	:	= Total Cov	er	Vegetation
50% of total cover: 20% of total cover: Present? Yes <u>Ves</u> No				
Remarks: (Include photo numbers here or on a separate	sneet.)			

Hydrophytic vegetation is dominant at this point.

SOIL

Sampling Point: DP-C

Profile Desc	ription: (Describe	to the dep	oth needed to docum	nent the	indicator	or confirm	m the absence of indicators.)			
Depth	Matrix		Redo	x Feature	es					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks			
0 - 8	10YR 5/3	80	10YR 6/8	20	С	M	Sandy loam			
8 - 14	10YR 5/1	60	10YR 5/6	40	С	Μ	Sandy loam			
-										
-					<u> </u>					
						·				
					<u></u>		·			
					<u></u>		· ·			
					<u> </u>					
-					<u> </u>					
		letion, RM	=Reduced Matrix, MS	S=Maske	d Sand Gr	ains.	² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ :			
Hydric Soil I				(07)			-			
Histosol	(A1) vipedon (A2)		Dark Surface Polyvalue Be				2 cm Muck (A10) (MLRA 147) 7, 148) Coast Prairie Redox (A16)			
Black His	• • • •		Thin Dark Su		· / ·		(MLRA 147, 148)			
	n Sulfide (A4)		Loamy Gleye	,	, .	147, 140)	Piedmont Floodplain Soils (F19)			
	Layers (A5)		Depleted Mat		(1 2)		(MLRA 136, 147)			
	ck (A10) (LRR N)		Redox Dark \$	• •	F6)		Very Shallow Dark Surface (TF12)			
	Below Dark Surfac	e (A11)	Depleted Dark				Other (Explain in Remarks)			
	irk Surface (A12)	0 (/11)	Redox Depre							
	lucky Mineral (S1) (I	RRN	Iron-Mangan							
	147, 148)	,	MLRA 13		000 (1 12) (<u>Entry</u> ,				
	leyed Matrix (S4)		Umbric Surfa		(MI RA 1:	36, 122)	³ Indicators of hydrophytic vegetation and			
	edox (S5)		Piedmont Flo							
-	Matrix (S6)		Red Parent N							
	ayer (if observed):	:		(,				
Туре:										
Depth (inc	ches):						Hydric Soil Present? Yes 🖌 No			
Remarks:										
Hydric s	oil is observ	t te ha	his noint							
riyune s			ins point.							

Project/Site: 161 Data Center	_ City/County: Prince William	Sampling Date: 2020-06-09
Applicant/Owner: Land Design Consultants, Inc.	_{State:} Virginia	Sampling Point: DP-D
Investigator(s): J. Moore, M. Sellers, R. Freeman	_ Section, Township, Range:	
Landform (hillslope, terrace, etc.): Upland	Local relief (concave, convex, none): <u>None</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): \$148 Lat: 38.63476		Datum: WGS 84
Soil Map Unit Name: 27A Hatboro-Codorus Complex	NWI classific	ation: Freshwater emergent
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes 🖌 No (If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology significan	tly disturbed? Are "Normal Circumstances" p	oresent? Yes 🔽 No
Are Vegetation, Soil, or Hydrology naturally	problematic? (If needed, explain any answe	rs 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 🖌	No No No	Is the Sampled Area within a Wetland?	Yes	No <u>/</u>
Remarks:					
Taken within uplands outside of flag W5.					

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; chec	Surface Soil Cracks (B6)	
Surface Water (A1)	k all that apply) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living F Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Other (Explain in Remarks)	 Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2)
Aquatic Fauna (B13)		FAC-Neutral Test (D5)
Water Table Present? Yes No _	_ Depth (inches): _ Depth (inches): _ Depth (inches): <u>3</u> well, aerial photos, previous inspect	Wetland Hydrology Present? Yes <u> No</u> No
Remarks: Wetland hydrology is observed ir	n the vicinity.	

Sampling Point: DP-D

, , 	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r)		Species?		Number of Dominant Species
_{1.} Liriodendron tulipifera	40	~	FACU	That Are OBL, FACW, or FAC: 2 (A)
2. Fagus grandifolia	30	~	FACU	
3. Acer rubrum	20	~	FAC	Total Number of Dominant
				Species Across All Strata: <u>5</u> (B)
4				Percent of Dominant Species
5			·	That Are OBL, FACW, or FAC: 40 (A/B)
6				
	90%	= Total Cov	rer	Prevalence Index worksheet:
50% of total cover: 45	000/	4.4.4.1	18	Total % Cover of: Multiply by:
	20% of	total cover		OBL species 0 x 1 = 0
Sapling Stratum (Plot size: 30 ft r)	_			FACW species 0 x 2 = 0
1. Carpinus caroliniana	5	<u> </u>	FAC	FAC species 27 x 3 = 81
2. Ilex opaca	5	~	FACU	77 000
3				
				UPL species $0 x 5 = 0$
4			·	Column Totals: <u>104</u> (A) <u>389</u> (B)
5			·	0.7
6				Prevalence Index = B/A = 3.7
	10%	= Total Cov	rer	Hydrophytic Vegetation Indicators:
50% of total cover: 5	20% of	total covor	. 2	1 - Rapid Test for Hydrophytic Vegetation
	20 % 01			2 - Dominance Test is >50%
Shrub Stratum (Plot size: 15 ft r)				
1				3 - Prevalence Index is ≤3.0 ¹
2			. <u> </u>	4 - Morphological Adaptations ¹ (Provide supporting
3				data in Remarks or on a separate sheet)
4				Problematic Hydrophytic Vegetation ¹ (Explain)
5			·	¹ Indicators of hydric soil and wetland hydrology must
6				be present, unless disturbed or problematic.
		= Total Cov	rer	Definitions of Five Vegetation Strata:
50% of total cover:	20% of	total cover		-
Herb Stratum (Plot size: 5 ft r)	2070 01			Tree – Woody plants, excluding woody vines,
<u>Hero Stratum</u> (Plot size: <u> </u>	2		FACU	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
	2 2			
2. Smilax rotundifolia	2		FAC	Sapling – Woody plants, excluding woody vines,
3				approximately 20 ft (6 m) or more in height and less
4.				than 3 in. (7.6 cm) DBH.
5				Shrub – Woody plants, excluding woody vines,
5			·	approximately 3 to 20 ft (1 to 6 m) in height.
6			·	
7		. <u> </u>	·	Herb – All herbaceous (non-woody) plants, including
8				herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3
9				ft (1 m) in height.
10				
				Woody vine – All woody vines, regardless of height.
11			·	
	4 %	= Total Cov	rer	
50% of total cover: 2	20% of	total cover	1	
Woody Vine Stratum (Plot size: 30 ft r)				
1				
2				
3				
4			. <u></u>	
5				
		= Total Cov		Hydrophytic
				Vegetation Present? Yes <u>No</u>
50% of total cover:	20% of	total cover	·	
Remarks: (Include photo numbers here or on a separate	sheet.)			

Hydrophytic vegetation is not dominant at this point.

SOIL

Profile Desc	Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix		Redo	x Feature	es				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0 - 8	10YR 5/3	85	10YR 5/8	15	<u>C</u>	M	Silty clay loam		
8 - 12	10YR 6/1	90	10YR 5/8	10	С	М	Silty clay loam		
-									
-		·					·		
-									
-									
-									
-									
		·							
-									
		letion, RM	=Reduced Matrix, MS	S=Maske	d Sand G	rains.		e Lining, M=Matrix.	
Hydric Soil I			Deal Oracian	(07)				for Problematic Hydric S	ions :
— Histosol Histic Er	(A1) bipedon (A2)		Dark Surface Polyvalue Be	· · /	200 (S8) (luck (A10) (MLRA 147) Prairie Redox (A16)	
Black Hi			Thin Dark Su		· · ·		·	RA 147, 148)	
	n Sulfide (A4)		Loamy Gleye		<i>,</i> .	141, 140)	•	ont Floodplain Soils (F19)	
	Layers (A5)		Depleted Mat		(/			RA 136, 147)	
	ck (A10) (LRR N)		Redox Dark S	. ,	F6)		•	hallow Dark Surface (TF12	2)
Depleted	Below Dark Surfac	e (A11)	Depleted Dar				Other (Explain in Remarks)	
	ark Surface (A12)		Redox Depre						
	lucky Mineral (S1) (I	LRR N,	Iron-Mangan		ses (F12)	(LRR N,			
	147, 148)		MLRA 13				31	Charles also d'a consta d'a	
	leyed Matrix (S4) edox (S5)		Umbric Surfa Piedmont Flo	, ,	•			s of hydrophytic vegetation hydrology must be presen	
	Matrix (S6)		Red Parent N	•			•	isturbed or problematic.	ι,
	ayer (if observed):				21) (1121				
Type:	.,,								
	ches):						Hydric Soil Pres	ent? Yes 🖌 No	
Remarks:									
Hydric s	oil is observ	ed at t	nis point.						

Project/Site: 161 Data Center	City/County: Prince William	Sampling Date: 2020-06-09
Applicant/Owner: Land Design Consultants, Inc.	State: Virginia	Sampling Point: DP-E
Investigator(s): J. Moore, M. Sellers, R. Freeman	Section, Township, Range:	
Landform (hillslope, terrace, etc.): Depression	Local relief (concave, convex, none): None	Slope (%): <u>2</u>
Subregion (LRR or MLRA): <u>S 148</u> Lat: <u>38.62918</u>	09 Long: -77.4245919	Datum: WGS 84
Soil Map Unit Name: 10C Buckhall Ioam	NWI classifica	ation: N/A
Are climatic / hydrologic conditions on the site typical for this time of	f year? Yes 🖌 No (If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hydrology significar	ntly disturbed? Are "Normal Circumstances" p	resent? Yes 🔽 No
Are Vegetation, Soil, or Hydrology naturally	problematic? (If needed, explain any answer	s 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 <mark>✓</mark> Yes ✓ Yes ✓	No No No	Is the Sampled Area within a Wetland?	Yes 🖌	No
Remarks:			·		
Taken within PFO-wetlan	Taken within PFO-wetlands inside flag W26.				

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
	Dry-Season Water Table (C2)
Field Observations: Surface Water Present? Yes No _ Depth (inches): Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Ves No _ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective)	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Remarks: Wetland hydrology is observed in the vicinity.	

Sampling Point: DP-E

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r)		Species?		Number of Dominant Species _
1. Acer rubrum	45	~	FAC	That Are OBL, FACW, or FAC: 7 (A)
2. Carya tomentosa	20	~	NI	
3 Liriodendron tulipifera	2		FACU	Total Number of Dominant Species Across All Strata: 10 (B)
				Species Across All Strata. (B)
4				Percent of Dominant Species
5		. <u> </u>		That Are OBL, FACW, or FAC: 70 (A/B)
6				Prevalence Index worksheet:
	67%	= Total Cov	er	
50% of total cover: <u>34</u>	20% of	total cover	13	Total % Cover of: Multiply by:
Sapling Stratum (Plot size: 30 ft r)	2070 01			OBL species $\frac{0}{20}$ x 1 = 0
				FACW species <u>30</u> x 2 = <u>60</u>
1				FAC species 55 x 3 = 165
2				FACU species <u>12</u> x 4 = <u>48</u>
3				UPL species 0 x 5 = 0
4				Column Totals: 97 (A) 273 (B)
5				
6				Prevalence Index = B/A = 2.8
	;		er	Hydrophytic Vegetation Indicators:
50% of total cover:	20% of	total cover		1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 15 ft r)				✓ 2 - Dominance Test is >50%
1				<u>✓</u> 3 - Prevalence Index is ≤3.0 ¹
2				4 - Morphological Adaptations ¹ (Provide supporting
3				data in Remarks or on a separate sheet)
				Problematic Hydrophytic Vegetation ¹ (Explain)
4				
5		. <u> </u>		¹ Indicators of hydric soil and wetland hydrology must
6				be present, unless disturbed or problematic.
	:	= Total Cov	er	Definitions of Five Vegetation Strata:
50% of total cover:	000/ /			
	20% of	total cover		
	20% of	total cover		Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r)				approximately 20 ft (6 m) or more in height and 3 in.
<u>Herb Stratum</u> (Plot size: <u>5 ft r</u>) 1. Carex grayi	10	~	FACW	
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi 2. Juncus effusus	10 10	 ✓ ✓ 	FACW FACW	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi 2. Juncus effusus 3. Carex pallescens	10 10 5	~	FACW FACW FACW	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi 2. Juncus effusus	10 10	 ✓ ✓ 	FACW FACW	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi 2. Juncus effusus 3. Carex pallescens 4. Dichanthelium clandestinum	10 10 5	<i>v</i> <i>v</i> <i>v</i>	FACW FACW FACW	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi 2. Juncus effusus 3. Carex pallescens 4. Dichanthelium clandestinum 5. Ilex opaca	10 10 5 5	V V V V	FACW FACW FACW FAC	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi 2. Juncus effusus 3. Carex pallescens 4. Dichanthelium clandestinum 5. Ilex opaca 6. Microstegium vimineum	10 10 5 5 5 5 5 5	V V V V V	FACW FACW FAC FAC FACU FAC	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi 2. Juncus effusus 3. Carex pallescens 4. Dichanthelium clandestinum 5. Ilex opaca 6. Microstegium vimineum 7. Panicum dichotomiflorum	10 10 5 5 5 5 5 5 5	V V V V V V V V V V V V V V	FACW FACW FAC FAC FACU FAC FACW	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi 2. Juncus effusus 3. Carex pallescens 4. Dichanthelium clandestinum 5. Ilex opaca 6. Microstegium vimineum 7. Panicum dichotomiflorum 8. Polystichum acrostichoides	10 10 5 5 5 5 5 5	V V V V V	FACW FACW FAC FAC FACU FAC	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi 2. Juncus effusus 3. Carex pallescens 4. Dichanthelium clandestinum 5. Ilex opaca 6. Microstegium vimineum 7. Panicum dichotomiflorum 8. Polystichum acrostichoides	10 10 5 5 5 5 5 5 5	V V V V V V V	FACW FACW FAC FAC FACU FAC FACW	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi 2. Juncus effusus 3. Carex pallescens 4. Dichanthelium clandestinum 5. Ilex opaca 6. Microstegium vimineum 7. Panicum dichotomiflorum 8. Polystichum acrostichoides	10 10 5 5 5 5 5 5 5 5	V V V V V V V	FACW FACW FAC FAC FACU FAC FACW	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi 2. Juncus effusus 3. Carex pallescens 4. Dichanthelium clandestinum 5. Ilex opaca 6. Microstegium vimineum 7. Panicum dichotomiflorum 8. Polystichum acrostichoides 9	10 10 5 5 5 5 5 5 5 5 5 5 5 5 5	V V V V V V V	FACW FACW FAC FAC FACU FAC FACW	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi 2. Juncus effusus 3. Carex pallescens 4. Dichanthelium clandestinum 5. Ilex opaca 6. Microstegium vimineum 7. Panicum dichotomiflorum 8. Polystichum acrostichoides 9	10 10 5 5 5 5 5 5 5 		FACW FACW FAC FACU FAC FACU FACW FACU	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi 2. Juncus effusus 3. Carex pallescens 4. Dichanthelium clandestinum 5. Ilex opaca 6. Microstegium vimineum 7. Panicum dichotomiflorum 8. Polystichum acrostichoides 9. 10. 11.	10 5 5 5 5 5 5 5 5 5 5 5 5		FACW FACW FAC FACU FAC FACU FACW FACU	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi 2. Juncus effusus 3. Carex pallescens 4. Dichanthelium clandestinum 5. Ilex opaca 6. Microstegium vimineum 7. Panicum dichotomiflorum 8. Polystichum acrostichoides 9. 10. 11. 50% of total cover: 25	10 5 5 5 5 5 5 5 5 5 5 5 5		FACW FACW FAC FACU FAC FACU FACW FACU	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi 2. Juncus effusus 3. Carex pallescens 4. Dichanthelium clandestinum 5. Ilex opaca 6. Microstegium vimineum 7. Panicum dichotomiflorum 8. Polystichum acrostichoides 9. 10. 11.	10 5 5 5 5 5 5 5 5 5 5 5 5		FACW FACW FAC FACU FAC FACU FACW FACU	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi 2. Juncus effusus 3. Carex pallescens 4. Dichanthelium clandestinum 5. Ilex opaca 6. Microstegium vimineum 7. Panicum dichotomiflorum 8. Polystichum acrostichoides 9. 10. 11. 50% of total cover: 25	10 5 5 5 5 5 5 5 5 5 20% of		FACW FACW FAC FACU FAC FACU FACW FACU FACU	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi 2. Juncus effusus 3. Carex pallescens 4. Dichanthelium clandestinum 5. Ilex opaca 6. Microstegium vimineum 7. Panicum dichotomiflorum 8. Polystichum acrostichoides 9. 10. 11. 50% of total cover: 25 Woody Vine Stratum (Plot size: 30 ft r)	10 5 5 5 5 5 5 5 5 5 20% of		FACW FACW FAC FACU FAC FACW FACU FACU FACU FACU	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi 2. Juncus effusus 3. Carex pallescens 4. Dichanthelium clandestinum 5. Ilex opaca 6. Microstegium vimineum 7. Panicum dichotomiflorum 8. Polystichum acrostichoides 9	10 10 5 5 5 5 5 5 5 5 5 20% of		FACW FACW FAC FACU FAC FACW FACU FACU FACU	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi 2. Juncus effusus 3. Carex pallescens 4. Dichanthelium clandestinum 5. llex opaca 6. Microstegium vimineum 7. Panicum dichotomiflorum 8. Polystichum acrostichoides 9. 10. 11. 50% of total cover: 25 Woody Vine Stratum (Plot size: 30 ft r) 1. 2. 3.	10 10 5 5 5 5 5 5 5 5 5 20% of		FACW FACW FAC FACU FAC FACW FACU FACU FACU	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi 2. Juncus effusus 3. Carex pallescens 4. Dichanthelium clandestinum 5. Ilex opaca 6. Microstegium vimineum 7. Panicum dichotomiflorum 8. Polystichum acrostichoides 9. 10. 11. 50% of total cover: 25 Woody Vine Stratum (Plot size: 30 ft r) 1. 2. 3. 4.	10 5 5 5 5 5 5 5 5 5 20% of		FACW FACW FAC FACU FAC FACW FACU FACU er 10	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi 2. Juncus effusus 3. Carex pallescens 4. Dichanthelium clandestinum 5. llex opaca 6. Microstegium vimineum 7. Panicum dichotomiflorum 8. Polystichum acrostichoides 9. 10. 11. 50% of total cover: 25 Woody Vine Stratum (Plot size: 30 ft r) 1. 2. 3.	10 5 5 5 5 5 5 5 5 20% of		FACW FACW FAC FACU FAC FACW FACU FACU FACU	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi 2. Juncus effusus 3. Carex pallescens 4. Dichanthelium clandestinum 5. Ilex opaca 6. Microstegium vimineum 7. Panicum dichotomiflorum 8. Polystichum acrostichoides 9. 10. 11. 50% of total cover: 25 Woody Vine Stratum (Plot size: 30 ft r) 1. 2. 3. 4.	10 5 5 5 5 5 5 5 5 20% of		FACW FACW FAC FACU FAC FACW FACU FACU FACU	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height. Hydrophytic Vegetation
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi 2. Juncus effusus 3. Carex pallescens 4. Dichanthelium clandestinum 5. llex opaca 6. Microstegium vimineum 7. Panicum dichotomiflorum 8. Polystichum acrostichoides 9. 10. 11. 50% of total cover: 25 Woody Vine Stratum (Plot size: 30 ft r) 1. 2. 3. 4. 5.	10 10 5 5 5 5 5 5 5 5 5 20% of		FACW FACW FAC FACU FAC FACW FACU FACU FACU	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height. Hydrophytic
Herb Stratum (Plot size: 5 ft r) 1. Carex grayi 2. Juncus effusus 3. Carex pallescens 4. Dichanthelium clandestinum 5. Ilex opaca 6. Microstegium vimineum 7. Panicum dichotomiflorum 8. Polystichum acrostichoides 9. 10. 11. 50% of total cover: 25 Woody Vine Stratum (Plot size: 30 ft r) 1. 2. 3. 4.	10 5 5 5 5 5 5 5 5 5 5 5 20% of 20% of		FACW FACW FACU FACU FACU FACW FACU FACU FACU	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height. Hydrophytic Vegetation

Hydrophytic vegetation is dominant at this point.

Profile Desc	ription: (Describe	to the dep	th needed to docur	nent the	indicator	or confirm	m the absence of indicators.)			
Depth	Matrix			x Feature						
(inches)	Color (moist)	<u>%</u>	Color (moist)				Texture Remarks			
0 - 12	10YR 6/1	80	10YR 5/8	20	С	М	Sandy loam			
-										
-										
		·					· · · · · · · · · · · · · · · · · · ·			
		·				·	· ·			
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		·				·	· ·			
-				. <u> </u>		·	· ·			
		letion, RM	=Reduced Matrix, MS	S=Maske	d Sand Gr	ains.	² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil I							Indicators for Problematic Hydric Soils ³ :			
Histosol	. ,		Dark Surface	· ·			2 cm Muck (A10) (MLRA 147)			
Histic Ep	bipedon (A2)		Polyvalue Be				(, 148) Coast Prairie Redox (A16) (MLRA 147, 148)			
	n Sulfide (A4)		Loamy Gleye			147, 140)	Piedmont Floodplain Soils (F19)			
	Layers (A5)		✓ Depleted Ma		(• _)		(MLRA 136, 147)			
	ick (A10) (LRR N)		Redox Dark	. ,	-6)		Very Shallow Dark Surface (TF12)			
Depleted	Below Dark Surfac	e (A11)	Depleted Da	rk Surface	e (F7)		Other (Explain in Remarks)			
	ark Surface (A12)		Redox Depre		,					
	lucky Mineral (S1) (I	_RR N,	Iron-Mangan		es (F12) (LRR N,				
	4147, 148)		MLRA 13				3			
	ileyed Matrix (S4)		Umbric Surfa	. ,	•		³ Indicators of hydrophytic vegetation and			
	edox (S5)		Piedmont Flo	•	, ,	•				
	Matrix (S6) -ayer (if observed):		Red Parent N	viateriai (F	·21) (IVILR	A 127, 14	7) unless disturbed or problematic.			
Depth (inc	ines):						Hydric Soil Present? Yes <u></u> No			
Remarks:										
	ail in alanamy		aia maint							

Hydric soil is observed at this point.

Project/Site: 161 Data Center	City/County: Prince William	Sampling Date: 2020-06-09
Applicant/Owner: Land Design Consultants, Inc.	State: Virginia	Sampling Point: DP-F
Investigator(s): J. Moore, M. Sellers, R. Freeman	Section, Township, Range:	
Landform (hillslope, terrace, etc.): Upland	ocal relief (concave, convex, none): None	Slope (%): <u>2</u>
Subregion (LRR or MLRA): <u>\$ 148</u> Lat: <u>38.634338</u>	Long: -77.4098503	Datum: WGS 84
Soil Map Unit Name: 10C Buckhall Ioam	NWI classific	ation: N/A
Are climatic / hydrologic conditions on the site typical for this time of y	vear? Yes 🖌 No (If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology significant	y disturbed? Are "Normal Circumstances" p	oresent? Yes 🔽 No
Are Vegetation, Soil, or Hydrology naturally p	roblematic? (If needed, explain any answe	rs 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 🖌	No No No	Is the Sampled Area within a Wetland?	Yes	_ No		
Remarks:							
Taken within uplands above flag W20.							

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; chec	k all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) High Water Table (A2) ✓ Saturation (A3) Water Marks (B1)	True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living I Presence of Reduced Iron (C4)	 Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2)
 Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) 	Recent Iron Reducted from (C4) Recent Iron Reduction in Tilled Sc Thin Muck Surface (C7) Other (Explain in Remarks)	
Water Table Present? Yes No _	_ Depth (inches): _ Depth (inches): _ Depth (inches): <u>.1</u> well, aerial photos, previous inspec	Wetland Hydrology Present? Yes <u>V</u> No <u></u> tions), if available:
Remarks: Wetland hydrology is observed ir	n the vicinity.	

Sampling Point: DP-F

, , ,	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r)		Species?		Number of Dominant Species
_{1.} Fagus grandifolia	70	~	FACU	That Are OBL, FACW, or FAC: 1 (A)
2 Acer rubrum	20	~	FAC	
3. Pinus taeda	10		FAC	Total Number of Dominant
				Species Across All Strata: <u>3</u> (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: <u>33</u> (A/B)
6				
	100%	= Total Cov	er	Prevalence Index worksheet:
50% of total cover: 50				Total % Cover of: Multiply by:
· · · · · · · · · · · · · · · · · · ·	20% of	total cover:		OBL species 0 x 1 = 0
Sapling Stratum (Plot size: 30 ft r)				FACW species 0 x 2 = 0
1				FAC species 30 x 3 = 90
2				75 000
3				
				UPL species $0 \times 5 = 0$
4				Column Totals: 105 (A) 390 (B)
5				0.7
6				Prevalence Index = B/A = 3.7
		= Total Cov	er	Hydrophytic Vegetation Indicators:
50% of total cover:	20% of	total cover		1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 15 ft r)	2070 01			2 - Dominance Test is >50%
				$_$ 3 - Prevalence Index is ≤3.0 ¹
1				
2				4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
3				
4				Problematic Hydrophytic Vegetation ¹ (Explain)
5				
				¹ Indicators of hydric soil and wetland hydrology must
6				be present, unless disturbed or problematic.
		= Total Cov	er	Definitions of Five Vegetation Strata:
50% of total cover:	20% of	total cover:		
Herb Stratum (Plot size: 5 ft r)				Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
1. Mitchella repens	5	~	FACU	(7.6 cm) or larger in diameter at breast height (DBH).
· · · · · · · · · · · · · · · · · · ·				
2				Sapling – Woody plants, excluding woody vines,
3				approximately 20 ft (6 m) or more in height and less
4				than 3 in. (7.6 cm) DBH.
5.				Shrub – Woody plants, excluding woody vines,
6				approximately 3 to 20 ft (1 to 6 m) in height.
7				Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
8				plants, except woody vines, less than approximately 3
9				ft (1 m) in height.
10				
11				Woody vine – All woody vines, regardless of height.
	= 0/	= Total Cov	or	
50% of total cover: <u>3</u>	20% of	total cover:	1	
Woody Vine Stratum (Plot size: 30 ft r)				
1				
2				
3				
4				
5				Hydrophytic
		Total Cav	er	Vegetation
	:		01	veuelation
				Present? Yes <u>No</u>
50% of total cover: Remarks: (Include photo numbers here or on a separate	20% of			

Profile Desc	ription: (Describe	to the dep	th needed to docur	nent the	indicator	or confirr	m the absence of indicators.)			
Depth	Matrix			x Feature						
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks			
0 - 12	10YR 3/2	90	10YR 4/1	10	D	М	Sandy loam			
-										
		·								
·		·	,		·	·				
-		·					·			
-										
		·			·					
					·					
-							- <u> </u>			
-										
-										
		lation PM	=Reduced Matrix, MS	-Mooko	d Sond Cr		² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil					u Sanu Gi	all 15.	Indicators for Problematic Hydric Soils ³			
Histosol			Dark Surface	(\$7)			2 cm Muck (A10) (MLRA 147)			
	bipedon (A2)		Polyvalue Be	· · ·	ace (S8) (N	ILRA 147				
Black Hi	• • • •		Thin Dark Su		· / ·					
	n Sulfide (A4)		Loamy Gleye		<i>,</i> .	,,	Piedmont Floodplain Soils (F19)			
	Layers (A5)		Depleted Ma		· · ·		(MLRA 136, 147)			
2 cm Mu	ick (A10) (LRR N)		Kedox Dark	Surface (I	F6)		Very Shallow Dark Surface (TF12)			
Depleted	d Below Dark Surfac	e (A11)	Depleted Dar	k Surface	e (F7)		Other (Explain in Remarks)			
	ark Surface (A12)		Redox Depre		,					
-	lucky Mineral (S1) (I	.RR N,	Iron-Mangan		ses (F12) (LRR N,				
	A 147, 148)		MLRA 13	,			2			
	eleyed Matrix (S4)		Umbric Surfa	. ,	•		³ Indicators of hydrophytic vegetation and			
	edox (S5)		Piedmont Flo	•	• •	•				
	Matrix (S6)		Red Parent N	laterial (H	-21) (MLR	A 127, 14	47) unless disturbed or problematic.			
	_ayer (if observed):									
Туре:										
Depth (ind	ches):						Hydric Soil Present? Yes Ves No			
Remarks:										

Hydric soil is observed at this point.

Project/Site: 161 Data Center	City/County: Prince William	Sampling Date: 2020-06-09
Applicant/Owner: Land Design Consultants, Inc.	State: Virginia	Sampling Point: DP-G
Investigator(s): J. Moore, M. Sellers, R. Freeman	Section, Township, Range:	
Landform (hillslope, terrace, etc.): Depression	ocal relief (concave, convex, none): <u>None</u>	Slope (%): 2
Subregion (LRR or MLRA): <u>\$ 148</u> Lat: <u>38.633728</u>	Long:77.3929447	Datum: WGS 84
Soil Map Unit Name: 10C Buckhall Loam	NWI classifica	ation: N/A
Are climatic / hydrologic conditions on the site typical for this time of y	year? Yes 🖌 No (If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hydrology significant	ly disturbed? Are "Normal Circumstances" pl	resent? Yes 🔽 No
Are Vegetation, Soil, or Hydrology naturally p	roblematic? (If needed, explain any answer	s 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 <mark>✓</mark> Yes ✓ Yes ✓	No No No	Is the Sampled Area within a Wetland?	Yes 🖌	No		
Remarks:							
Taken within PFO-wetlands inside flag W31.							

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) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water Stained Leaves (B9) Aquatic Fauna (B13) 	Dry-Season Water Table (C2)
Field Observations: Surface Water Present? Yes No _ Depth (inches): Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	Wetland Hydrology Present? Yes <u>V</u> No <u>No</u> ions), if available:
Remarks:	
Wetland hydrology is observed in the vicinity.	

Sampling Point: DP-G

00 <i>(</i>)	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r)		Species?		Number of Dominant Species
1. Acer rubrum	45	~	FAC	That Are OBL, FACW, or FAC: 5 (A)
_{2.} Liquidambar styraciflua	20	~	FAC	Total Number of Dominant
3. Liriodendron tulipifera	15		FACU	Total Number of Dominant Species Across All Strata: 6 (B)
4				
5				Percent of Dominant Species That Are OBL_EACW_or EAC: 83 (A/B)
			·	That Are OBL, FACW, or FAC: 83 (A/B)
6	80%	Total Cau		Prevalence Index worksheet:
10				Total % Cover of: Multiply by:
50% of total cover: 40	20% of	total cover	10	$OBL species 0 \qquad \qquad x_{1} = 0$
Sapling Stratum (Plot size: 30 ft r)				FACW species 25 $x = 50$
_{1.} Fagus grandifolia	5	~	FACU	FAC species 115 x 3 = 345
2				
3				FACU species $\frac{25}{2}$ x 4 = $\frac{100}{2}$
				UPL species $\frac{0}{105}$ x 5 = 0
4				Column Totals: <u>165</u> (A) <u>495</u> (B)
5			·	
6	5%		·	Prevalence Index = B/A = <u>3.0</u>
	<u> </u>	= Total Cov	er	Hydrophytic Vegetation Indicators:
50% of total cover: 3	20% of	total cover:	1	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 15 ft r)				✓ 2 - Dominance Test is >50%
1				<u> </u> 3 - Prevalence Index is ≤3.0 ¹
2				4 - Morphological Adaptations ¹ (Provide supporting
				data in Remarks or on a separate sheet)
3			·	Problematic Hydrophytic Vegetation ¹ (Explain)
4			·	
5			·	¹ Indicators of hydric soil and wetland hydrology must
6				be present, unless disturbed or problematic.
		= Total Cov	er	Definitions of Five Vegetation Strata:
50% of total cover:	20% of	total cover:		
Herb Stratum (Plot size: 5 ft r)				Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
Athyrium angustum	15	~	FAC	(7.6 cm) or larger in diameter at breast height (DBH).
2. Carex grayi	15		FACW	
3. Microstegium vimineum	15		FAC	Sapling – Woody plants, excluding woody vines,
				approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
4. Dioscorea villosa	10		FAC	
5. Juncus effusus	10		FACW	Shrub – Woody plants, excluding woody vines,
_{6.} Smilax rotundifolia	10		FAC	approximately 3 to 20 ft (1 to 6 m) in height.
_{7.} Ilex opaca	5		FACU	Herb – All herbaceous (non-woody) plants, including
8				herbaceous vines, regardless of size, and woody
9.				plants, except woody vines, less than approximately 3 ft (1 m) in height.
10				
				Woody vine – All woody vines, regardless of height.
11		Table		
		= Total Cov		
50% of total cover: 40	20% of	total cover:	16	
Woody Vine Stratum (Plot size: 30 ft r)				
1				
2				
3				
4			·	
		·	·	
5				Hydrophytic
5		·		Vegetation
5 50% of total cover:	 :	= Total Cov	ver	

Profile Desc	ription: (Describe	to the dep	oth needed to docur	nent the	indicator	or confirm	n the absence of inc	licators.)		
Depth	Matrix			x Feature						
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks		
0 - 12	2.5Y 5/2	80	7.5YR 4/6	20	С	М	Sandy loam			
-										
·						·				
-						·				
-										
-										
						·				
						·				
						·				
-										
-										
¹ Type: $C=Cc$	ncentration, D=Der	letion. RM	=Reduced Matrix, M	S=Masker	d Sand Gr	ains	² Location: PL=Por	e Lining, M=Matrix,		
Hydric Soil I								or Problematic Hy	dric Soils ³ :	
Histosol	(A1)		Dark Surface	e (S7)			2 cm M	uck (A10) (MLRA 1 4	47)	
	ipedon (A2)		Polyvalue Be		ice (S8) (N	ILRA 147		Prairie Redox (A16)	,	
Black His			Thin Dark Su		• • •		·	RA 147, 148)		
Hydroge	n Sulfide (A4)		Loamy Gleye	ed Matrix	(F2)		Piedmont Floodplain Soils (F19)			
Stratified	l Layers (A5)		Depleted Ma	trix (F3)			(MLRA 136, 147)			
2 cm Mu	ck (A10) (LRR N)		Redox Dark	Surface (F	-6)		Very Shallow Dark Surface (TF12)			
	Below Dark Surfac	e (A11)	Depleted Da				Other (Explain in Remarks)			
	irk Surface (A12)		Redox Depre		,					
-	lucky Mineral (S1) (LRR N,	Iron-Mangan		es (F12) (LRR N,				
	147, 148)		MLRA 13				3			
	leyed Matrix (S4)		Umbric Surfa	. ,	•			s of hydrophytic veg		
	edox (S5)		Piedmont Flo	•	, ,	•	•	hydrology must be p		
	Matrix (S6) ayer (if observed)	-	Red Parent N	viateriai (F	·21) (IVILR	A 127, 14	() uniess ai	sturbed or problema	itic.	
	ayer (il observeu)	•								
Type:										
Depth (inc	ches):		<u> </u>				Hydric Soil Prese	ent? Yes 🖌	No	
Remarks:										
Hydric s	oil is observ	ed at tl	his point.							

Project/Site: 161 Data Center	City/County: Prince William	Sampling Date: 2020-06-09
Applicant/Owner: Land Design Consultants, Inc.	State: Virgin	a Sampling Point: DP-H
Investigator(s): J. Moore, M. Sellers, R. Freeman	Section, Township, Range:	
Landform (hillslope, terrace, etc.): Upland	ocal relief (concave, convex, none): None	Slope (%): 2
Subregion (LRR or MLRA): <u>\$ 148</u> Lat: <u>38.634796</u>	61 Long: -77.4086173	Datum: WGS 84
Soil Map Unit Name: 27A Hatboro-Codorus Complex	NWI classif	ication: Freshwater Emergent
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes 🖌 No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology significant	ly disturbed? Are "Normal Circumstances"	present? Yes No
Are Vegetation, Soil, or Hydrology naturally p	problematic? (If needed, explain any answ	ers 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		Is the Sampled Area within a Wetland?	Yes No
, ,,	100			
Remarks: Taken within uplands in	side flag	W13.		
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)	·	True Aquatic Plants	s (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)		Hydrogen Sulfide C	odor (C1)	Drainage Patterns (B10)
Saturation (A3)	_	Oxidized Rhizosphe	eres on Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1)		Presence of Reduc	ed Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	_	_ Recent Iron Reduct	ion in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift Deposits (B3)	_	Thin Muck Surface	(C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	—	Other (Explain in R	emarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)				Geomorphic Position (D2)
Inundation Visible on Aerial Image	ery (B7)			Shallow Aquitard (D3)
Water-Stained Leaves (B9)				Microtopographic Relief (D4)
Aquatic Fauna (B13)				FAC-Neutral Test (D5)
Field Observations:				
		_ Depth (inches):		
		_ Depth (inches):		
Saturation Present? Yes (includes capillary fringe)	No 🔽	_ Depth (inches):	Wetland H	Hydrology Present? Yes No
Describe Recorded Data (stream gau	ge, monitoring	well, aerial photos, p	revious inspections), if ava	ailable:
Remarks:				
One secondary wetland	hvdrolog	av indicator is	s observed in the	e vicinity.
···· · · · · · · · · · · · · · · · · ·		5,		· · · · · · · · · · · · · · · · · · ·

Sampling Point: DP-H

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r)		Species?	Status	Number of Dominant Species
1. Acer rubrum	40	~	FAC	That Are OBL, FACW, or FAC: 2 (A)
2. Fagus grandifolia	30	~	FACU	
3. Carpinus caroliniana	10	-	FAC	Total Number of Dominant
Liriodendron tulipifera	10		FACU	Species Across All Strata: / (B)
··			TACO	Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 29 (A/B)
6				
	90%	= Total Cov	er	Prevalence Index worksheet:
50% of total cover: 45				Total % Cover of: Multiply by:
	20% of	total cover		OBL species 0 x 1 = 0
Sapling Stratum (Plot size: 30 ft r)				FACW species 0 x 2 = 0
_{1.} Fagus grandifolia	10	~	FACU	FAC species 52 x 3 = 156
2				
3				FACU species 54 $x_4 = 216$
4				
				Column Totals: <u>108</u> (A) <u>382</u> (B)
5				2 5
6	4000			Prevalence Index = B/A = 3.5
	10% .	= Total Cov	er	Hydrophytic Vegetation Indicators:
50% of total cover: 5	20% of	total cover	2	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 15 ft r)	20/0 01			2 - Dominance Test is >50%
				3 - Prevalence Index is $\leq 3.0^{1}$
1				
2				4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
3				
4				Problematic Hydrophytic Vegetation ¹ (Explain)
5				
				¹ Indicators of hydric soil and wetland hydrology must
6				be present, unless disturbed or problematic.
	:	 Total Cov 	er	
		- 10101 001	01	Definitions of Five Vegetation Strata:
50% of total cover:	20% of			
	20% of			Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r)	20% of			Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Carex spp.	2	total cover	UPL	Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Carex spp. 2. Fagus grandifolia	2	total cover	UPL FACU	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r) 1. Carex spp. 2. Fagus grandifolia 3. Mitchella repens	2 2 2	total cover	UPL FACU FACU	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Carex spp. 2. Fagus grandifolia	2	total cover	UPL FACU	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r) 1. Carex spp. 2. Fagus grandifolia 3. Mitchella repens	2 2 2	total cover	UPL FACU FACU	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Carex spp. 2. Fagus grandifolia 3. Mitchella repens 4. Smilax rotundifolia 5	2 2 2 2 2	total cover	UPL FACU FACU FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
Herb Stratum (Plot size: 5 ft r) 1. Carex spp. 2. Fagus grandifolia 3. Mitchella repens 4. Smilax rotundifolia 5	$\begin{array}{c} 2 \\ 2 \\ \hline 2 \\ \hline 2 \\ \hline 2 \\ \hline \end{array}$	total cover	UPL FACU FACU FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Carex spp.) 2. Fagus grandifolia	2 2 2 2 2	total cover	UPL FACU FACU FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including
Herb Stratum (Plot size: 5 ft r) 1. Carex spp.) 2. Fagus grandifolia) 3. Mitchella repens) 4. Smilax rotundifolia) 5.) 6.) 7.) 8.)	$\begin{array}{c} 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ \end{array}$	total cover	UPL FACU FACU FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Carex spp.) 2. Fagus grandifolia	$\begin{array}{c} 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ \end{array}$	total cover	UPL FACU FACU FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
Herb Stratum (Plot size: 5 ft r) 1. Carex spp.) 2. Fagus grandifolia) 3. Mitchella repens) 4. Smilax rotundifolia) 5.) 6.) 7.) 8.)	2 2 2 2 2	total cover	UPL FACU FACU FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Carex spp.) 2. Fagus grandifolia		total cover	UPL FACU FACU FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3
Herb Stratum (Plot size: 5 ft r) 1. Carex spp. 2. Fagus grandifolia 3. Mitchella repens 4. Smilax rotundifolia 5		total cover	UPL FACU FACU FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Carex spp.) 2. Fagus grandifolia) 3. Mitchella repens) 4. Smilax rotundifolia) 5. (Plot size) 6.) 7.) 8.) 9.) 10.) 11.)	2 2 2 2 	total cover	UPL FACU FACU FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Carex spp. 2. Fagus grandifolia 3. Mitchella repens 4. Smilax rotundifolia 5	2 2 2 2 	total cover	UPL FACU FACU FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
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Herb Stratum (Plot size: 5 ft r) 1. Carex spp. 2. Fagus grandifolia 3. Mitchella repens 4. Smilax rotundifolia 5	2 2 2 2 	total cover	UPL FACU FACU FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Carex spp. 2. Fagus grandifolia 3. Mitchella repens 4. Smilax rotundifolia 5	2 2 2 2 	total cover	UPL FACU FACU FAC 	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Carex spp. 2. Fagus grandifolia 3. Mitchella repens 4. Smilax rotundifolia 5	2 2 2 2 	total cover	UPL FACU FACU FAC 	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Carex spp. 2. Fagus grandifolia 3. Mitchella repens 4. Smilax rotundifolia 5. 6. 7. 8. 9. 10. 11. 50% of total cover: 4 Woody Vine Stratum (Plot size: 30 ft r) 1. 2. 3. 4.	2 2 2 2 	total cover	UPL FACU FACU FAC 	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Carex spp. 2. Fagus grandifolia 3. Mitchella repens 4. Smilax rotundifolia 5	2 2 2 2 	total cover	UPL FACU FACU FAC 	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
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Herb Stratum (Plot size: 5 ft r) 1. Carex spp. 2. Fagus grandifolia 3. Mitchella repens 4. Smilax rotundifolia 5. 6. 7. 8. 9. 10. 11. 50% of total cover: 4 Woody Vine Stratum (Plot size: 30 ft r) 1. 2. 3. 4.	2 2 2 2 	total cover	UPL FACU FACU FAC FAC FAC FAC FAC FAC FAC FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.

Hydrophytic vegetation is not dominant at this point.

SOIL

Profile Desc	ription: (Describe	to the dep	oth needed to docun	nent the	indicator	or confirm	n the absence of indicators.)	
Depth	Matrix			k Feature				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks	—
0 - 4	10YR 4/2	95	7.5YR 4/6	5	С	М	Silt Loam	
4 - 12	10YR 6/1	80	7.5YR 4/6	20	С	М	Silt Loam	
-								
-		<u> </u>						
		- <u> </u>			<u> </u>	·	· · · · · · _ /	—
	·	·				·		
-	·	·			. <u> </u>			_
-		<u> </u>						
-								
-								
-						·		_
	ncentration D-Den	letion RM	=Reduced Matrix, MS	-Masko	d Sand Gr	ains	² Location: PL=Pore Lining, M=Matrix.	_
Hydric Soil I							Indicators for Problematic Hydric Soils ³ :	
Histosol	(A1)		Dark Surface	(S7)			2 cm Muck (A10) (MLRA 147)	
Histic Ep	pipedon (A2)		Polyvalue Be		ace (S8) (N	ILRA 147		
Black Hi	. ,		Thin Dark Su	•	, .	47, 148)	(MLRA 147, 148)	
	n Sulfide (A4)		Loamy Gleye		(F2)		Piedmont Floodplain Soils (F19)	
	Layers (A5)		✓ Depleted Mat	• •			(MLRA 136, 147)	
	ck (A10) (LRR N) Below Dark Surfac	0 (111)	Redox Dark S Depleted Dar	`	,		Very Shallow Dark Surface (TF12) Other (Explain in Remarks)	
	ark Surface (A12)	e (ATT)	Redox Depre					
	lucky Mineral (S1) (I	.RR N.	Iron-Mangane			LRR N.		
	147, 148)	,	MLRA 13			,		
Sandy G	leyed Matrix (S4)		Umbric Surfa	ce (F13)	(MLRA 13	6, 122)	³ Indicators of hydrophytic vegetation and	
Sandy R	edox (S5)		Piedmont Flo	odplain S	Soils (F19)	(MLRA 14	48) wetland hydrology must be present,	
	Matrix (S6)		Red Parent M	laterial (F	⁻ 21) (MLR	A 127, 14	7) unless disturbed or problematic.	
	_ayer (if observed):							
Туре: <u>Ro</u>								
Depth (inc	ches): <u>o</u>						Hydric Soil Present? Yes Vo	
Remarks:								

Hydric soil is observed at this point.

Project/Site: 161 Data Center	City/County: Prince William	Sampling Date: 2020-06-09
Applicant/Owner: Land Design Consultants, Inc.	State: Virgini	a Sampling Point: DP-I
Investigator(s): J. Moore, M. Sellers, R. Freeman	Section, Township, Range:	
Landform (hillslope, terrace, etc.): Upland	Local relief (concave, convex, none): None	Slope (%): <u>2</u>
Subregion (LRR or MLRA): S148 Lat: 38.63314	82 Long: -77.4116789	Datum: WGS 84
Soil Map Unit Name: 38B Meadowville Ioam	NWI classifi	cation: Freshwater forested
Are climatic / hydrologic conditions on the site typical for this time of	f year? Yes 🖌 No (If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrology significar	ntly disturbed? Are "Normal Circumstances"	present? Yes 🔽 No
Are Vegetation, Soil, or Hydrology naturally	problematic? (If needed, explain any answe	ers 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	No No No	Is the Sampled Area within a Wetland?	Yes No
Remarks:				
Taken within uplands o	utside of t	flag VA23.		
HYDROLOGY				
Wetland Hydrology Indicators:				Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one i	s required; cheo	ck all that apply)		Surface Soil Cracks (B6)
Surface Water (A1)		True Aquatic Plants	s (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)		Hydrogen Sulfide O	dor (C1)	Drainage Patterns (B10)
Saturation (A3)		Oxidized Rhizosphe	eres on Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1)		Presence of Reduce	ed Iron (C4)	Dry-Season Water Table (C2)

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) High Water Table (A2) Saturation (A3) Oxidized Rhizospheres on Living Ro Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) 	Dry-Season Water Table (C2)
Field Observations:	
Surface Water Present? Yes No V Depth (inches):	Wetland Hydrology Present? Yes No
Remarks: One secondary hydrology indicator is observed in the vi	cinity.

Sampling Point: DP-I

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r)		Species?		Number of Dominant Species
_{1.} Liriodendron tulipifera	30	~	FACU	That Are OBL, FACW, or FAC: 2 (A)
2. Carpinus caroliniana	20	~	FAC	
3. Acer rubrum	10		FAC	Total Number of Dominant
4. Ilex opaca	10		FACU	Species Across All Strata: <u>4</u> (B)
				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 50 (A/B)
6				
	70% :	= Total Cov	ver	Prevalence Index worksheet:
50% of total cover: 35	20% of	total covor	. 14	Total % Cover of: Multiply by:
	20% 01		·	OBL species 0 x 1 = 0
Sapling Stratum (Plot size: 30 ft r)				FACW species <u>5</u> x 2 = <u>10</u>
1				FAC species <u>40</u> x 3 = <u>120</u>
2				FACU species 55 x 4 = 220
3				$\frac{1}{10} \text{ species } \frac{0}{2} \text{ x } 4 = 0$
4				
5				Column Totals: 100 (A) 350 (B)
				Prevalence Index = B/A = 3.5
6				
		= I otal Cov	ver	Hydrophytic Vegetation Indicators:
50% of total cover:	20% of	total cover	: <u> </u>	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 15 ft r)				2 - Dominance Test is >50%
1				3 - Prevalence Index is ≤3.0 ¹
				4 - Morphological Adaptations ¹ (Provide supporting
2				data in Remarks or on a separate sheet)
3				Problematic Hydrophytic Vegetation ¹ (Explain)
4				(
5				1. The structure of the state o
6				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
		= Total Cov	/er	
				Definitions of Five Vegetation Strata:
50% of total cover:	20% of			
Herb Stratum (Plot size: 5 ft r)			:	Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
<u>Herb Stratum</u> (Plot size: <u>5 ft r</u>) 1. Ilex opaca	20% of 10			Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r)		total cover	:	Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
<u>Herb Stratum</u> (Plot size: <u>5 ft r</u>) 1. Ilex opaca	10	total cover	FACU	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines,
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Ilex opaca 2. Microstegium vimineum 3. Fagus grandifolia	10 10	total cover	FACU FAC FACU	Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Ilex opaca 2. Microstegium vimineum	10 10 5	total cover	FACU FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Ilex opaca 2. Microstegium vimineum 3. Fagus grandifolia 4. Juncus effusus 5	10 10 5 5 5	total cover	FACU FAC FACU FACW	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines,
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Ilex opaca 2. Microstegium vimineum 3. Fagus grandifolia	10 10 5 5 5	total cover	FACU FAC FACU FACW	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Ilex opaca 2. Microstegium vimineum 3. Fagus grandifolia 4. Juncus effusus 5	10 10 5 5 	total cover	FACU FAC FACU FACW	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including
Herb Stratum (Plot size: 5 ft r) 1. Ilex opaca) 2. Microstegium vimineum) 3. Fagus grandifolia	10 10 5 5 	total cover	FACU FAC FACU FACW	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
Herb Stratum (Plot size: 5 ft r) 1. Ilex opaca) 2. Microstegium vimineum 3. Fagus grandifolia 4. Juncus effusus 5. 6. 7. 8.	10 10 5 5		FACU FAC FACU FACW	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3
Herb Stratum (Plot size: 5 ft r) 1. Ilex opaca 2. Microstegium vimineum 3. Fagus grandifolia 4. Juncus effusus 5	10 10 5 5 		FACU FAC FACU FACW	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
Herb Stratum (Plot size: 5 ft r) 1. Ilex opaca) 2. Microstegium vimineum 3. Fagus grandifolia	10 10 5 5 		FACU FAC FACU FACW	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3
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Herb Stratum (Plot size: 5 ft r) 1. Ilex opaca 2. Microstegium vimineum 3. Fagus grandifolia 4. Juncus effusus 5. 6. 7. 8. 9. 10. 11.	10 5 5 	total cover	FACU FAC FACU FACW	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Ilex opaca) 2. Microstegium vimineum 3. Fagus grandifolia	10 5 5 	total cover	FACU FAC FACU FACW	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Ilex opaca . 2. Microstegium vimineum . 3. Fagus grandifolia . 4. Juncus effusus . 5	10 5 5 	total cover	FACU FAC FACU FACW	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Ilex opaca 2. Microstegium vimineum 3. Fagus grandifolia 4. Juncus effusus 5. 6. 7. 8. 9. 10. 11. 50% of total cover: 15 Woody Vine Stratum (Plot size: 30 ft r)	10 10 5 5 	total cover	FACU FAC FACU FACW	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
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Herb Stratum (Plot size: 5 ft r) 1. Ilex opaca 2. Microstegium vimineum 3. Fagus grandifolia 4. Juncus effusus 5. 6. 7. 8. 9. 10. 11. 50% of total cover: 15 Woody Vine Stratum (Plot size: 30 ft r) 1. 2. 3. 4.	10 10 5 5 30% 20% of	total cover	FACU FAC FACU FACW	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
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Herb Stratum (Plot size: 5 ft r) 1. Ilex opaca 2. Microstegium vimineum 3. Fagus grandifolia 4. Juncus effusus 5. 6. 7. 8. 9. 10. 11. 50% of total cover: 15 Woody Vine Stratum (Plot size: 30 ft r) 1. 2. 3. 4.	10 10 5 5 30% 20% of	total cover	FACU FACU FACU FACW	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
Herb Stratum (Plot size: 5 ft r) 1. Ilex opaca 2. Microstegium vimineum 3. Fagus grandifolia 4. Juncus effusus 5. 6. 7. 8. 9. 10. 11. 50% of total cover: 15 Woody Vine Stratum (Plot size: 30 ft r) 1. 2. 3. 4. 5.	10 10 5 5 	total cover	FACU FAC FACU FACW FACW	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height. Hydrophytic
Herb Stratum (Plot size: 5 ft r) 1. Ilex opaca 2. Microstegium vimineum 3. Fagus grandifolia 4. Juncus effusus 5. 6. 7. 8. 9. 10. 11. 50% of total cover: 15 Woody Vine Stratum (Plot size: 30 ft r) 1. 2. 3. 4.	10 10 5 5 	total cover	FACU FAC FACU FACW FACW	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.

Profile Desc	ription: (Describe	to the dept	n needed to docum	ent the indicat	or or confirm	n the absence of inc	licators.)	
Depth	Matrix	<u> </u>		Features	1 . 2			
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u> Туре	Loc ²	Texture	Remarks	6
0 - 12	10YR 4/4	100				Silt Loam		
-								
-								
		· ·		· ·				
		· ·						
		· ·						
-								
-		· ·						
		· ·						
		· ·						
-				,				
		letion, RM=l	Reduced Matrix, MS	=Masked Sand	Grains.	² Location: PL=Por	U .	
Hydric Soil I							or Problematic H	•
Histosol	. ,		Dark Surface	· · /			uck (A10) (MLRA	,
·	bipedon (A2)		Polyvalue Bel	ow Surface (S8) face (S9) (MLR			Prairie Redox (A16	5)
Black His	n Sulfide (A4)		Loamy Gleyed		A 147, 140)	•	RA 147, 148) Int Floodplain Soil	s (F19)
	Layers (A5)		Depleted Matr	. ,			RA 136, 147)	5 (1 15)
	ck (A10) (LRR N)		Redox Dark S	()		•	allow Dark Surfac	ce (TF12)
Depleted	Below Dark Surfac	e (A11)	Depleted Dark	surface (F7)		Other (Explain in Remark	s)
	ark Surface (A12)		Redox Depres	· ·				
	lucky Mineral (S1) (I	.RR N,	-	ese Masses (F12	2) (LRR N,			
	147, 148)		MLRA 136	•		3		
-	leyed Matrix (S4)		Umbric Surfac				s of hydrophytic ve	-
	edox (S5) Matrix (S6)			odplain Soils (F1 laterial (F21) (M			hydrology must be sturbed or proble	•
	ayer (if observed):				LINA 121, 141			
Type:	 ,							
	ches):					Hydric Soil Prese	ent? Yes	No 🖌
Remarks:								

Hydric soil is not observed at this point.

Project/Site: 161 Data Center	City/County: Prince William	Sampling Date: 2020-06-09
Applicant/Owner: Land Design Consultants, Inc.	State: Virginia	Sampling Point: DP-J
Investigator(s): J. Moore, M. Sellers, R. Freeman	Section, Township, Range:	
Landform (hillslope, terrace, etc.): Upland	Local relief (concave, convex, none): <u>None</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): <u>S 148</u> Lat: <u>38.63455</u>	20 Long: -77.4090195	Datum: WGS 84
Soil Map Unit Name: 38B Meadowville Ioam	NWI classific	ation: N/A
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes 🖌 No (If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology significar	tly disturbed? Are "Normal Circumstances" p	vresent? Yes 🔽 No
Are Vegetation, Soil, or Hydrology naturally	problematic? (If needed, explain any answe	rs 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	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					
Taken within uplands ou	itside of f	lag V31.			
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)
Primary Indicators (minimum of one is required; check all that apply)	 Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks: Wetland hydrology is not observed in the vicinity.	

Sampling Point: DP-J

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>30 ft r</u>)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: 0 (A)
2				Total Number of Dominant
3				Species Across All Strata: <u>1</u> (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: $\underline{0}$ (A/B)
6	=			Prevalence Index worksheet:
				Total % Cover of: Multiply by:
50% of total cover:	20% of	total cover:		OBL species <u>10</u> x 1 = <u>10</u>
Sapling Stratum (Plot size: <u>30 ft r</u>)				FACW species 10 x 2 = 20
1				FAC species <u>10</u> x 3 = <u>30</u>
2				FACU species 60 x 4 = 240
3				UPL species $0 x 5 = 0$
4				Column Totals: 90 (A) 300 (B)
5				
6				Prevalence Index = B/A = <u>3.3</u>
	=	= Total Cove	ər	Hydrophytic Vegetation Indicators:
50% of total cover:	20% of	total cover:		1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 15 ft r)				2 - Dominance Test is >50%
1				3 - Prevalence Index is ≤3.0 ¹
2				4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
3				
4				Problematic Hydrophytic Vegetation ¹ (Explain)
5				1
6				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
		= Total Cove	ər	Definitions of Five Vegetation Strata:
50% of total cover:	20% of	total cover:		Demittoris of Five vegetation Strata.
Herb Stratum (Plot size: 5 ft r)	2070 01		<u> </u>	Tree – Woody plants, excluding woody vines,
1 Solidago canadensis	60	~	FACU	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
2. Acer rubrum	10		FAC	
3 Asclepias incarnata	10		OBL	Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
4 Juncus effusus	10		FACW	than 3 in. (7.6 cm) DBH.
5				Shrub – Woody plants, excluding woody vines,
6				approximately 3 to 20 ft (1 to 6 m) in height.
7				Herb – All herbaceous (non-woody) plants, including
8				herbaceous vines, regardless of size, and woody
9				plants, except woody vines, less than approximately 3 ft (1 m) in height.
10				
11				Woody vine – All woody vines, regardless of height.
	90% -	= Total Cove		
45				
50% of total cover: 45	20% of	total cover:	10	
Woody Vine Stratum (Plot size: 30 ft r)				
1				
2				
3				
4				
5				Hydrophytic
1	=	= Total Cove	ei.	Vegetation
50% of total cover:				Present? Yes No

Profile Desc	ription: (Describe	to the de	pth needed to docur	nent the	indicator	or confirm	m the absence of indicators.)			
Depth	Matrix		Redo	x Feature	es					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks			
0 - 16	10YR 5/4	90	7.5YR 5/6	10	С	М	Silt Loam			
_										
							·			
			·							
-										
-										
			·							
-							·			
-		_		_	_					
-										
							· · · · · · · · · · · · · · · · · · ·			
							·			
		pletion, RM	I=Reduced Matrix, MS	S=Maske	d Sand G	ains.	² Location: PL=Pore Lining, M=Matrix.			
Hydric Soil							Indicators for Problematic Hydric Soils ³ :			
Histosol	()		Dark Surface	· · /			2 cm Muck (A10) (MLRA 147)			
-	oipedon (A2)		Polyvalue Be							
Black Hi	· · /		Thin Dark Su	•		147, 148)				
	en Sulfide (A4)		Loamy Gleye		(F2)		Piedmont Floodplain Soils (F19)			
	d Layers (A5)		Depleted Ma	` '			(MLRA 136, 147)			
	ick (A10) (LRR N)	- () 4 4)	Redox Dark		,		Very Shallow Dark Surface (TF12)			
	d Below Dark Surfac	e (A11)	Depleted Date		. ,		Other (Explain in Remarks)			
	ark Surface (A12)		Redox Depre		,					
-	1ucky Mineral (S1) (I \ 147, 148)	LKK N,	Iron-Mangan MLRA 13		ses (F12)	LKK N,				
	Gleyed Matrix (S4)		Umbric Surfa			06 100)	³ Indicators of hydrophytic vegetation and			
	Redox (S5)		Piedmont Flo	• •	•					
	Matrix (S6)		Red Parent N	•	• •	•	, , , , , , , , , , , , , , , , , , , ,			
	Layer (if observed)	•		nateriai (A 127, 14	(i) unless disturbed of problematic.			
	Layer (il observeu)	•								
Туре:										
Depth (in	ches):						Hydric Soil Present? Yes No			
Remarks:										

Hydric soil is not observed at this point.

Project/Site: 161 Data Center	City/County: Prince William	Sampling Date: 2020-06-10
Applicant/Owner: Land Design Consultants, Inc.	State: Virginia	Sampling Point: DP-JJ1
Investigator(s): J. Moore, M. Sellers, R. Freeman	Section, Township, Range:	
Landform (hillslope, terrace, etc.): Depression	Local relief (concave, convex, none): None	Slope (%): <u>2</u>
Subregion (LRR or MLRA): <u>S 148</u> Lat: <u>38.64028</u>	93 Long: -77.4131505	Datum: WGS 84
Soil Map Unit Name: 24C Glenelg-Buckhall Complex	NWI classific	ation: N/A
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes 🖌 No (If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology significan	ntly disturbed? Are "Normal Circumstances" p	vresent? Yes 🔽 No
Are Vegetation, Soil, or Hydrology naturally	problematic? (If needed, explain any answe	rs 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 _✔	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks:		1 /			
Taken within uplands n	ear flag JJ	14.			
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) High Water Table (A2) Hydrogen Sulfide Odor (C1) Saturation (A3) Oxidized Rhizospheres on Living R Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Recent Iron Reduction in Tilled So Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) 	Dry-Season Water Table (C2)
Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	Wetland Hydrology Present? Yes <u>V</u> No <u></u> tions), if available:
Remarks: Wetland hydrology is observed in the vicinity.	

Sampling Point: DP-JJ1

, , , , , , , , , , , , , , , , , , ,	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r)		Species?		Number of Dominant Species
_{1.} Fagus grandifolia	40	~	FACU	That Are OBL, FACW, or FAC: 1 (A)
2. Liriodendron tulipifera	35	~	FACU	
3. Acer rubrum	25	~	FAC	Total Number of Dominant
				Species Across All Strata: <u>3</u> (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: <u>33</u> (A/B)
6				
	100%	= Total Cov	er	Prevalence Index worksheet:
50% of total cover: 50				Total % Cover of: Multiply by:
	20% of	total cover:		OBL species 0 x 1 = 0
Sapling Stratum (Plot size: 30 ft r)				FACW species 0 x 2 = 0
1				FAC species 25 x 3 = 75
2				
3				
				UPL species $0 \times 5 = 0$
4				Column Totals: <u>100</u> (A) <u>375</u> (B)
5				2.0
6				Prevalence Index = B/A = <u>3.8</u>
		= Total Cov	er	Hydrophytic Vegetation Indicators:
50% of total cover:	20% of	total cover		1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 15 ft r)	2070 01			2 - Dominance Test is >50%
				3 - Prevalence Index is $≤3.0^1$
1				
2				4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
3				
4				Problematic Hydrophytic Vegetation ¹ (Explain)
5				
6				¹ Indicators of hydric soil and wetland hydrology must
0				be present, unless disturbed or problematic.
		= Total Cov	er	Definitions of Five Vegetation Strata:
50% of total cover:	20% of	total cover:		Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r)				approximately 20 ft (6 m) or more in height and 3 in.
1				(7.6 cm) or larger in diameter at breast height (DBH).
2				Sapling – Woody plants, excluding woody vines,
3				approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
4				
5				Shrub – Woody plants, excluding woody vines,
6				approximately 3 to 20 ft (1 to 6 m) in height.
7				Herb – All herbaceous (non-woody) plants, including
				herbaceous vines, regardless of size, and woody
8				plants, except woody vines, less than approximately 3
9				ft (1 m) in height.
10				Woody vine – All woody vines, regardless of height.
11				Woody vine – An woody vines, regardless of height.
		= Total Cov	er	
50% of total cover:	200/ of	total anyor		
	20% 0			
Woody Vine Stratum (Plot size: <u>30 ft r</u>)				
1				
2				
3				
4				
5				Hydrophytic
		= Total Cov	er	Vegetation
50% of total cover:	20% of	total cover:		Present? Yes No
Remarks: (Include photo numbers here or on a separate				1
	,			

SOIL

Profile Desc	Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0 - 8	10YR 3/6	80	10YR 5/1	10	D	М	Silty clay loam	Concentration: 7.5YR 5/8 10%
8 - 16	10YR 4/2	90	5YR 4/6	10	С	М	Silty clay loam	
-								
-						·		
							<u> </u>	
-					_			
-								
-						·		
		pletion, RM	=Reduced Matrix, M	S=Maske	d Sand Gr	ains.		L=Pore Lining, M=Matrix.
Hydric Soil I								ators for Problematic Hydric Soils ³ :
Histosol	· ,		Dark Surface	. ,				cm Muck (A10) (MLRA 147)
· · ·	pipedon (A2)		Polyvalue Be		· / ·		, 148) <u> </u>	coast Prairie Redox (A16)
Black His	. ,		Thin Dark Su	•	<i>,</i> .	47, 148)	D	(MLRA 147, 148)
	n Sulfide (A4) I Layers (A5)		Loamy Gleye		(FZ)		P	iedmont Floodplain Soils (F19) (MLRA 136, 147)
	ck (A10) (LRR N)		Redox Dark	. ,	E6)		V	ery Shallow Dark Surface (TF12)
	Below Dark Surfac	ce (A11)	Depleted Da	•	,			ther (Explain in Remarks)
	ark Surface (A12)		Redox Depre					
	lucky Mineral (S1)	LRR N.	Iron-Mangan	•		LRR N.		
	147, 148)		MLRA 13					
Sandy G	leyed Matrix (S4)		Umbric Surfa	ace (F13)	(MLRA 13	6, 122)	³ Ind	icators of hydrophytic vegetation and
Sandy R	edox (S5)		Piedmont Flo	odplain S	Soils (F19)	(MLRA 1	48) we	tland hydrology must be present,
Stripped	Matrix (S6)		Red Parent I	Material (I	- 21) (MLR	A 127, 14	7) un	less disturbed or problematic.
Restrictive L	ayer (if observed)):						
Туре:								
Depth (inc	ches):						Hydric Soil	Present? Yes 🖌 No
Remarks:							_1	
Hydric s	oil is observ	ed at t	his point.					

Project/Site: 161 Data Center	City/County: Prince William	Sampling Date: 2020-06-10
Applicant/Owner: Land Design Consultants, Inc.	State: Virginia	Sampling Point: DP-JJ2
Investigator(s): J. Moore, M. Sellers	Section, Township, Range:	
Landform (hillslope, terrace, etc.): Depression	Local relief (concave, convex, none): <u>None</u>	Slope (%): 2
Subregion (LRR or MLRA): <u>S 148</u> Lat: <u>38.88156</u>	13 Long: -77.4412286	Datum: WGS 84
Soil Map Unit Name: 24C Glenelg Buckhall Complex	NWI classific	ation: N/A
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes 🖌 No (If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology significar	ntly disturbed? Are "Normal Circumstances" p	oresent? Yes 🔽 No
Are Vegetation, Soil, or Hydrology naturally	problematic? (If needed, explain any answe	rs 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 ✓	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					
Taken within ephemera	l swale no	rth of transm	ission easement		

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)
	Dry-Season Water Table (C2)
Field Observations: Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No 🔽 Depth (inches):	
Saturation Present? Yes No 🖌 Depth (inches):	Wetland Hydrology Present? Yes No
(includes capillary fringe)	
	tions), if available:
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	tions), if available:
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	tions), if available:
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	tions), if available:
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	tions), if available:
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	tions), if available:
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	tions), if available:
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	tions), if available:
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	tions), if available:
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	tions), if available:
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	tions), if available:

Sampling Point: DP-JJ2

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r)		Species?	Status	Number of Dominant Species
_{1.} Acer rubrum	60	~	FAC	That Are OBL, FACW, or FAC: 1 (A)
2 Fagus grandifolia	40	~	FACU	
				Total Number of Dominant
3				Species Across All Strata: <u>2</u> (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 50 (A/B)
6				
	100%	= Total Cov	er	Prevalence Index worksheet:
50				Total % Cover of: Multiply by:
50% of total cover: <u>50</u>	20% of	total cover:	20	OBL species 0 x 1 = 0
Sapling Stratum (Plot size: 30 ft r)				FACW species 0 $x = 0$
1				FACtive species $\frac{1}{2}$ $x_2 = \frac{1}{2}$
2				
				FACU species <u>40</u> x 4 = <u>160</u>
3				UPL species $0 \times 5 = 0$
4				Column Totals: 100 (A) 340 (B)
5				
6				Prevalence Index = B/A = 3.4
		= Total Cov	er	Hydrophytic Vegetation Indicators:
50% of total cover:	200/ of	total cover		1 - Rapid Test for Hydrophytic Vegetation
	20 % 01			2 - Dominance Test is >50%
Shrub Stratum (Plot size: 15 ft r)				
1				3 - Prevalence Index is ≤3.0 ¹
2				4 - Morphological Adaptations ¹ (Provide supporting
3				data in Remarks or on a separate sheet)
4				Problematic Hydrophytic Vegetation ¹ (Explain)
5				¹ Indicators of hydric soil and wetland hydrology must
6			<u> </u>	be present, unless disturbed or problematic.
	:	= Total Cov	er	Definitions of Five Vegetation Strata:
50% of total cover:	20% of	total cover:		C C
Herb Stratum (Plot size: 5 ft r)	2070 01			Tree – Woody plants, excluding woody vines,
				approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
1				
2				Sapling – Woody plants, excluding woody vines,
3				approximately 20 ft (6 m) or more in height and less
4				than 3 in. (7.6 cm) DBH.
			·	
5				Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
6				
7				Herb – All herbaceous (non-woody) plants, including
8				herbaceous vines, regardless of size, and woody
				plants, except woody vines, less than approximately 3
9				ft (1 m) in height.
10				Woody vine – All woody vines, regardless of height.
11				The second secon
		= Total Cov	er	
	000/	4-4-1		
50% of total cover:	20% 0	total cover.		
Woody Vine Stratum (Plot size: 30 ft r)				
1				
2				
3				
4				
5				Hydrophytic
		= Total Cov		Vegetation
E00/ of total action	200/ -4	total covic-		Present? Yes No
50% of total cover:		iotal cover:		
Remarks: (Include photo numbers here or on a separate	sheet.)			

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix		Redo	x Feature	s			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0 - 3	10YR 4/1	90	10YR 5/8	10	С	Μ	Silt Loam	
3 - 12	10YR 5/1	80	10YR 5/6	20	С	М	Silt Loam	
-								
-								
-								
-								
-								
-								
-								
-								
¹ Type: C=Co	oncentration, D=Dep	letion, RM	=Reduced Matrix, MS	S=Masked	I Sand Gr	ains.	² Location: P	PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators:						Indic	ators for Problematic Hydric Soils ³ :
Histosol	(A1)		Dark Surface	(S7)			2	2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be		ce (S8) (N	/LRA 147,		Coast Prairie Redox (A16)
Black Hi	• • •		Thin Dark Su				,	(MLRA 147, 148)
	n Sulfide (A4)		Loamy Gleye			, .,	F	Piedmont Floodplain Soils (F19)
	Layers (A5)		 Depleted Mat 		/			(MLRA 136, 147)
	ck (A10) (LRR N)		Redox Dark S	. ,	6)		N.	/ery Shallow Dark Surface (TF12)
	Below Dark Surface	ς Δ11)	Depleted Dark	· ·	,			Other (Explain in Remarks)
	ark Surface (A12)	= (\(\)	Redox Depre					
	. ,							
	lucky Mineral (S1) (L \ 147, 148)	.KK N,	Iron-Mangan MLRA 13		es (F12) (LKK N,		
	leyed Matrix (S4)		Umbric Surfa		MLRA 13	6, 122)	³ Inc	licators of hydrophytic vegetation and
	edox (S5)		Piedmont Flo	. ,	-			etland hydrology must be present,
	Matrix (S6)		Red Parent N					less disturbed or problematic.
Restrictive L	ayer (if observed):				, ,			·
Туре:								
Depth (inc	ches):						Hydric Soil	l Present? Yes 🖌 No
Remarks:							•	
Hydric s	oil is observe	ed at t	his point.					

Project/Site: 161 Data Center	City/County: Prince William	Sampling Date: 2020-06-10
Applicant/Owner: Land Design Consultants, Inc.	State: Virginia	Sampling Point: DP-K
Investigator(s): J. Moore, M. Sellers, R. Freeman	Section, Township, Range:	
	ocal relief (concave, convex, none): None	Slope (%): <u>2</u>
Subregion (LRR or MLRA): <u>S 148</u> Lat: <u>38.8815613</u>	B Long:77.4412059	Datum: WGS 84
Soil Map Unit Name: 27A Hatboro-Codorus Complex	NWI classific	ation: Freshwater forested
Are climatic / hydrologic conditions on the site typical for this time of y	rear? Yes 🖌 No (If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology significantly	y disturbed? Are "Normal Circumstances" p	oresent? Yes 🔽 No
Are Vegetation, Soil, or Hydrology naturally pl	roblematic? (If needed, explain any answe	rs 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 🖌	No No No	Is the Sampled Area within a Wetland?	Yes 🖌	No	
Remarks:						
Taken within PFO-wetlands inside flag X112.						

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) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) 	Dry-Season Water Table (C2)
Field Observations: Surface Water Present? Yes No _ Depth (inches): Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) No _ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective)	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Remarks: Wetland hydrology is observed in the vicinity.	

Sampling Point: DP-K

00.0	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r)		Species?		Number of Dominant Species
1. Acer rubrum	40	 ✓ 	FAC	That Are OBL, FACW, or FAC: 2 (A)
2				Total Number of Dominant
3				Species Across All Strata: <u>2</u> (B)
4				
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
6				(A'B)
·	40%	= Total Cov	er	Prevalence Index worksheet:
20				Total % Cover of: Multiply by:
50% of total cover: 20	20% of	total cover:	<u> </u>	OBL species 2 x 1 = 2
Sapling Stratum (Plot size: 30 ft r)				FACW species 0 x 2 = 0
1		· . <u></u>		FAC species 105 x 3 = 315
2				FACU species 0 x 4 = 0
3				$\frac{1}{1} \text{ UPL species } \frac{0}{1} \text{ x 5 = } 0$
4				Column Totals: 107 (A) 317 (B)
5				$\begin{array}{c} \text{Column rotals.} \\ \hline \begin{array}{c} 107 \\ \hline \end{array} \\ \hline \begin{array}{c} (A) \\ \hline \end{array} \\ \hline \begin{array}{c} 017 \\ \hline \end{array} \\ \hline \begin{array}{c} 017 \\ \hline \end{array} \\ \hline \begin{array}{c} (B) \\ \hline \end{array} \end{array}$
6				Prevalence Index = B/A = <u>3.0</u>
		= Total Cov	er	Hydrophytic Vegetation Indicators:
50% of total cover:	20% of	total cover:		1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 15 ft r)				✓ 2 - Dominance Test is >50%
1,				✓ 3 - Prevalence Index is $\leq 3.0^1$
2				4 - Morphological Adaptations ¹ (Provide supporting
				data in Remarks or on a separate sheet)
3				Problematic Hydrophytic Vegetation ¹ (Explain)
4				
5				¹ Indicators of hydric soil and wetland hydrology must
6				be present, unless disturbed or problematic.
		= Total Cov	er	Definitions of Five Vegetation Strata:
50% of total cover:	20% of	total cover:		
Herb Stratum (Plot size: 5 ft r)	20% of	total cover:		Tree – Woody plants, excluding woody vines,
	60	total cover:		
Herb Stratum (Plot size: 5 ft r)				Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
Herb Stratum (Plot size: 5 ft r) 1. Microstegium vimineum	60		FAC	Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: 5 ft r) 1. Microstegium vimineum 2. Athyrium angustum 3. Leersia oryzoides	60 5		FAC FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r) 1. Microstegium vimineum 2. Athyrium angustum 3. Leersia oryzoides 4	60 5		FAC FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Microstegium vimineum 2. Athyrium angustum 3. Leersia oryzoides 45	60 5 2	<u> </u>	FAC FAC OBL	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
Herb Stratum (Plot size: 5 ft r) 1. Microstegium vimineum 2. Athyrium angustum 3. Leersia oryzoides 4	60 5 2	<u> </u>	FAC FAC OBL	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Microstegium vimineum 2. Athyrium angustum 3. Leersia oryzoides 4	60 5 2		FAC FAC OBL	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
Herb Stratum (Plot size: 5 ft r) 1. Microstegium vimineum 2. Athyrium angustum 3. Leersia oryzoides 4	60 5 2		FAC FAC OBL	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3
Herb Stratum (Plot size: 5 ft r) 1. Microstegium vimineum 2. Athyrium angustum 3. Leersia oryzoides 4	60 5 2		FAC FAC OBL	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
Herb Stratum (Plot size: 5 ft r) 1. Microstegium vimineum 2. Athyrium angustum 3. Leersia oryzoides 4	60 5 2		FAC FAC OBL	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3
Herb Stratum (Plot size: 5 ft r) 1. Microstegium vimineum 2. Athyrium angustum 3. Leersia oryzoides 4	60 5 2		FAC FAC OBL	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Microstegium vimineum 2. Athyrium angustum 3. Leersia oryzoides 4	60 5 2 		FAC FAC OBL	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Microstegium vimineum 2. Athyrium angustum 3. Leersia oryzoides 4	60 5 2 		FAC FAC OBL	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Microstegium vimineum 2. Athyrium angustum 3. Leersia oryzoides 4	60 5 2 		FAC FAC OBL	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Microstegium vimineum 2. Athyrium angustum 3. Leersia oryzoides 4	60 5 2 	Total Cover:	FAC FAC OBL	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Microstegium vimineum 2. Athyrium angustum 3. Leersia oryzoides 4	60 5 2 	Total Cover:	FAC FAC OBL 	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Microstegium vimineum 2. Athyrium angustum 3. Leersia oryzoides 4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover: <u>34</u> Woody Vine Stratum (Plot size: <u>30 ft r</u>) 1. 2.	60 5 2 	Total Covers	FAC FAC OBL 	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Microstegium vimineum 2. Athyrium angustum 3. Leersia oryzoides 4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover: <u>34</u> Woody Vine Stratum (Plot size: <u>30 ft r</u>) 1. 2. 3.	60 5 2 67% 20% of	= Total Cover:	FAC FAC OBL	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Microstegium vimineum 2. Athyrium angustum 3. Leersia oryzoides 4	60 5 2 		FAC FAC OBL 	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Microstegium vimineum 2. Athyrium angustum 3. Leersia oryzoides 4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover: <u>34</u> Woody Vine Stratum (Plot size: <u>30 ft r</u>) 1. 2. 3.	60 5 2	Total Cover:	FAC FAC OBL 	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height. Hydrophytic
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Microstegium vimineum 2. Athyrium angustum 3. Leersia oryzoides 4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover: <u>34</u> Woody Vine Stratum (Plot size: <u>30 ft r</u>) 1. 2. 3. 4. 5.	60 5 2 	= Total Cov	FAC FAC OBL 	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
Herb Stratum (Plot size: 5 ft r) 1. Microstegium vimineum 2. Athyrium angustum 3. Leersia oryzoides 4	60 5 2 	= Total Cov	FAC FAC OBL 	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height. Hydrophytic

Profile Desc	ription: (Describe	to the dep	oth needed to docur	nent the	indicator	or confirm	m the absence of indicators.)	
Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks	
0 - 12	10YR 4/2	90	10YR 5/6	10	С	M	Silt Loam	
-								
_								
		·				·		
-		·			- <u> </u>	·	· ·	
					<u> </u>			
-								
-								
		·			<u> </u>	·		
-					<u> </u>		· ·	
-								
¹ Type: C=Co	oncentration, D=Dep	letion, RM	=Reduced Matrix, MS	S=Maske	d Sand Gr	ains.	² Location: PL=Pore Lining, M=Matrix.	
Hydric Soil	Indicators:						Indicators for Problematic Hydric Soils ³	:
Histosol	(A1)		Dark Surface	e (S7)			2 cm Muck (A10) (MLRA 147)	
Histic Ep	pipedon (A2)		Polyvalue Be					
Black Hi	. ,		Thin Dark Sι			47, 148)		
	n Sulfide (A4)		Loamy Gleye		(F2)		Piedmont Floodplain Soils (F19)	
	d Layers (A5)		Depleted Ma	`` '			(MLRA 136, 147)	
	ick (A10) (LRR N)	(Redox Dark	```	,		Very Shallow Dark Surface (TF12)	
	d Below Dark Surfac	e (A11)	Depleted Dat		. ,		Other (Explain in Remarks)	
	ark Surface (A12) lucky Mineral (S1) (I		Redox Depre					
	147, 148)	-KK N,	MLRA 13			LKK N,		
	Gleyed Matrix (S4)		Umbric Surfa	,	(MI RA 13	6 122)	³ Indicators of hydrophytic vegetation and	
	edox (S5)		Piedmont Flo	, ,	•			
	Matrix (S6)		Red Parent N	•	• •	•	, , , , , , , , , , , , , , , , , , , ,	
	_ayer (if observed):			(,		
	,							
	ches):						Hydric Soil Present? Yes 🖌 No	
Remarks:								

Hydric soil is observed in the vicinity.

Project/Site: 161 Data Center	City/County: Prince William	Sampling Date: 2020-06-10
Applicant/Owner: Land Design Consultants, Inc.	_{State:} Virginia	Sampling Point: DP-KK1
Investigator(s): J. Moore, M. Sellers, R. Freeman	Section, Township, Range:	
Landform (hillslope, terrace, etc.): Depression	Local relief (concave, convex, none): None	Slope (%): <u>2</u>
Subregion (LRR or MLRA): <u>S 148</u> Lat: <u>38.64028</u>	Long: -77.4131699	Datum: WGS 84
Soil Map Unit Name: 24C Glenelg-Buckhall Complex	NWI classific	ation: N/A
Are climatic / hydrologic conditions on the site typical for this time of	f year? Yes 🖌 No (If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology significar	ntly disturbed? Are "Normal Circumstances" p	resent? Yes 🔽 No
Are Vegetation, Soil, or Hydrology naturally	problematic? (If needed, explain any answe	rs 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 🖌	No No No	Is the Sampled Area within a Wetland?	Yes 🖌	No			
Remarks:								
Taken within PFO-wetla	Taken within PFO-wetlands inside flag J3.							

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check	Surface Soil Cracks (B6)	
Primary Indicators (minimum of one is required; cheat		
Water-Stained Leaves (B9)		Microtopographic Relief (D4)
Aquatic Fauna (B13)		FAC-Neutral Test (D5)
Field Observations:		
Water Table Present? Yes No _	_ Depth (inches): _ Depth (inches): _ Depth (inches): <u>.1</u> well, aerial photos, previous inspec	Wetland Hydrology Present? Yes <u></u> No tions), if available:
Remarks:		
Wetland hydrology is observed in	n the vicinity.	

Sampling Point: DP-KK1

20.4 -	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r)		Species?		Number of Dominant Species
1. Quercus alba	55	<u> </u>	FACU	That Are OBL, FACW, or FAC: <u>3</u> (A)
2. Acer rubrum	20	 ✓ 	FAC	Total Number of Dominant
3				Total Number of Dominant Species Across All Strata: 4 (B)
4				
				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: <u>75</u> (A/B)
6	750/			Prevalence Index worksheet:
	/5%	= Total Cov	er	
50% of total cover: <u>38</u>	20% of	total cover:	15	Total % Cover of: Multiply by: OBL species 10 v 1 = 10
Sapling Stratum (Plot size: 30 ft r)				
				FACW species 0 x 2 = 0
1				FAC species <u>35</u> x 3 = <u>105</u>
2				FACU species <u>55</u> x 4 = <u>220</u>
3				UPL species 0 x 5 = 0
4				Column Totals: 100 (A) 335 (B)
5				$\begin{array}{c} \text{Column rotals:} \underline{100} \\ \text{(A)} \\ \underline{300} \\ \text{(B)} \end{array}$
6				Prevalence Index = B/A = 3.4
		= Total Cov	or	Hydrophytic Vegetation Indicators:
50% of total cover:	20% of	total cover:		1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 15 ft r)				✓ 2 - Dominance Test is >50%
1				3 - Prevalence Index is ≤3.0 ¹
2				4 - Morphological Adaptations ¹ (Provide supporting
				data in Remarks or on a separate sheet)
3				Problematic Hydrophytic Vegetation ¹ (Explain)
4				
5				¹ Indicators of hydric soil and wetland hydrology must
6				be present, unless disturbed or problematic.
	:	= Total Cov	er	Definitions of Five Vegetation Strata:
50% of total cover:	20% of	total anyor:		Deminions of two vegetation offata.
	20 % 01	total cover.		Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r)	15		F AQ	approximately 20 ft (6 m) or more in height and 3 in.
1. Microstegium vimineum	15	~	FAC	(7.6 cm) or larger in diameter at breast height (DBH).
2. Persicaria hydropiperoides	10	~	OBL	Sapling – Woody plants, excluding woody vines,
3				approximately 20 ft (6 m) or more in height and less
4.				than 3 in. (7.6 cm) DBH.
5				Shrub – Woody plants, excluding woody vines,
<u> </u>				approximately 3 to 20 ft (1 to 6 m) in height.
6				
7				Herb – All herbaceous (non-woody) plants, including
8				herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3
9				ft (1 m) in height.
10				
11				Woody vine – All woody vines, regardless of height.
		Tatal Cau		
	·	= Total Cov	_	
50% of total cover: <u>13</u>	20% of	total cover:	5	
Woody Vine Stratum (Plot size: 30 ft r)				
1				
2				
3				
4				
5				Hydrophytic
		= Total Cov		Vegetation
				Present? Yes <u>V</u> No
50% of total cover:	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate				

SOIL

Sampling Point: DP-KK1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix			x Feature		. 2	-	
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>			<u>Texture</u>	Remarks
0 - 10	10YR 2/1	90	5YR 5/8	10	C	Μ	Silty clay	
10 - 16	10YR 4/2	90	7.5YR 5/8	10	C	M	Clay	
-								
-								
					·			
					<u></u>	·		
-					. <u> </u>			
-					<u> </u>			
-					<u> </u>	<u> </u>		
-								
-					·			
$\frac{1}{1}$ Type: C-C		lotion PM	I=Reduced Matrix, M	S-Macka	d Sand G		² Location: E	PL=Pore Lining, M=Matrix.
Hydric Soil				S=IVIASKE	u Sanu Gi	airis.		ators for Problematic Hydric Soils ³ :
Histosol			Dark Surface	s (S7)				2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be		ace (S8) (I	/LRA 147		Coast Prairie Redox (A16)
Black Hi	• • •		Thin Dark Su					(MLRA 147, 148)
Hydroge	n Sulfide (A4)		Loamy Gleye		, .		F	Piedmont Floodplain Soils (F19)
	Layers (A5)		Depleted Ma					(MLRA 136, 147)
2 cm Mu	ick (A10) (LRR N)		Redox Dark	Surface (F6)		\	Very Shallow Dark Surface (TF12)
Depleted	Below Dark Surfac	e (A11)	Depleted Da	rk Surface	e (F7)		(Other (Explain in Remarks)
Thick Da	ark Surface (A12)		Redox Depre	essions (F	-8)			
Sandy M	lucky Mineral (S1) (I	LRR N,	Iron-Mangan	ese Mass	ses (F12) (LRR N,		
	A 147, 148)		MLRA 13					
	ileyed Matrix (S4)		Umbric Surfa					dicators of hydrophytic vegetation and
-	edox (S5)		Piedmont Flor					etland hydrology must be present,
	Matrix (S6)		Red Parent I	Material (F	-21) (MLR	A 127, 14	7) ur	nless disturbed or problematic.
_	_ayer (if observed):	:						
Туре:								
Depth (inc	ches):						Hydric Soi	I Present? Yes 🥓 No
Remarks:								
Hvdric s	oil is observ	ed at t	his point.					
,								

Project/Site: 161 Data Center	_ City/County: Prince William	Sampling Date: 2020-06-10
Applicant/Owner: Land Design Consultants, Inc.	State: Virginia	a Sampling Point: DP-L
Investigator(s): J. Moore, M. Sellers, R. Freeman	_ Section, Township, Range:	
	Local relief (concave, convex, none): <u>None</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): <u>\$ 148</u> Lat: <u>38.881530</u>	D8 Long: -77.4412489	Datum: WGS 84
Soil Map Unit Name: 27A Hatboro-Codorus Complex	NWI classifie	cation: N/A
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes No (If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrology significan	tly disturbed? Are "Normal Circumstances"	present? Yes 🗹 No
Are Vegetation, Soil, or Hydrology naturally	problematic? (If needed, explain any answe	ers 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	No No No	Is the Sampled Area within a Wetland?	Yes	No			
Remarks: Taken within uplands outside of flag N20.								

HYDROLOGY

Wetland Hydrology Indicato	rs:			Secondary Indicators (minimum of two required)	
Primary Indicators (minimum	of one is required; chec	Surface Soil Cracks (B6)			
Surface Water (A1)		Sparsely Vegetated Concave Surface (B8)			
High Water Table (A2)		Hydrogen Sulfide Odor (C1)		Drainage Patterns (B10)	
Saturation (A3)	_	Oxidized Rhizospheres on Living	Roots (C3)	Moss Trim Lines (B16)	
Water Marks (B1)	_	Presence of Reduced Iron (C4)		Dry-Season Water Table (C2)	
Sediment Deposits (B2)		Recent Iron Reduction in Tilled Sc	oils (C6)	Crayfish Burrows (C8)	
Drift Deposits (B3)		Thin Muck Surface (C7)		Saturation Visible on Aerial Imagery (C9)	
Algal Mat or Crust (B4)		Other (Explain in Remarks)		Stunted or Stressed Plants (D1)	
Iron Deposits (B5)				Geomorphic Position (D2)	
Inundation Visible on Aer	ial Imagery (B7)			Shallow Aquitard (D3)	
Water-Stained Leaves (B	9)			Microtopographic Relief (D4)	
Aquatic Fauna (B13)				FAC-Neutral Test (D5)	
Field Observations:					
Surface Water Present?	Yes No 🔽	_ Depth (inches):			
Water Table Present?	Yes No 🔽	_ Depth (inches):			
Saturation Present? Yes No 🖌 Depth (inches):		_ Depth (inches):	Wetland Hydrology Present? Yes No		
(includes capillary fringe)				9-1-1-	
,	am gauge, monitoring	well, aerial photos, previous inspec	tions), if ava		
Buttress roots					
Remarks:					

Sampling Point: DP-L

FACU That A Total I Specie Percel That A Cover Preva ver: 15 FACU FACW FACU FACW FACU FACU Cover FACU Ver: 15 OBL s FACW FACU FACU Cover Hydro Ver: 5 1 2 3 4 Preva P	DependenceDependenceO(A)Number of Dominant ies Across All Strata:2(B)ent of Dominant Species Are OBL, FACW, or FAC:0(A/B)alence Index worksheet:(A/B)Cotal % Cover of:Multiply by: $x 1 = 0$ Species0 $x 2 = 0$ Species0 $x 2 = 0$ Species100 $x 4 = 400$ Species0 $x 5 = 0$ J species0 $x 5 = 0$ Inn Totals:102(A)Prevalence Index = B/A = 4.0 Ophytic Vegetation Indicators: $=$ Rapid Test for Hydrophytic Vegetation $= 550\%$ $=$ Prevalence Index is $\leq 3.0^1$ $=$ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)Problematic Hydrophytic Vegetation ¹ (Explain)
FACU That A Total I Specie Percel That A Cover Preva ver: 15 FACU FACW FACU FACW FACU FACU Cover FACU Ver: 15 OBL s FACW FACU FACU Cover Hydro Ver: 5 1 2 3 4 Preva P	Are OBL, FACW, or FAC: 0 (A) Number of Dominant les Across All Strata: 2 (B) ent of Dominant Species Are OBL, FACW, or FAC: 0 (A/B) alence Index worksheet: Total % Cover of: Multiply by: species 0 x 1 = 0 V species 0 x 2 = 0 species 2 x 3 = 6 J species 0 x 4 = 400 species 0 x 5 = 0 Inn Totals: 102 (A) 406 (B) Prevalence Index = B/A = 4.0 ophytic Vegetation Indicators: - Rapid Test for Hydrophytic Vegetation - Prevalence Index is $\leq 3.0^1$ - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Specie Perce That A Cover Preva 15 OBL s FACU FACW FACU FACU FACU Colum UPL s Colum I 1 1	ies Across All Strata:2(B)ent of Dominant Species Are OBL, FACW, or FAC:0(A/B)alence Index worksheet:(A/B)Total % Cover of:Multiply by: x 1 = 0species0x 1 = 0V species0x 2 = 0species2x 3 = 6J species100x 4 = 400species0x 5 = 0nn Totals:102(A)406(B)Prevalence Index = B/A = 4.0ophytic Vegetation Indicators:- Rapid Test for Hydrophytic Vegetation- Dominance Test is >50%- Prevalence Index is <3.01
Specie Perce That A Cover Preva 15 OBL s FACU FACW FACU FACU FACU Colum UPL s Colum I 1 1	ies Across All Strata:2(B)ent of Dominant Species Are OBL, FACW, or FAC:0(A/B)alence Index worksheet:(A/B)Total % Cover of:Multiply by: x 1 = 0species0x 1 = 0V species0x 2 = 0species2x 3 = 6J species100x 4 = 400species0x 5 = 0nn Totals:102(A)406(B)Prevalence Index = B/A = 4.0ophytic Vegetation Indicators:- Rapid Test for Hydrophytic Vegetation- Dominance Test is >50%- Prevalence Index is <3.01
Percent Cover Preva wer: 15 OBL s FACU FACW FACS FACU FACU UPL s Column I Column Wer: 5 1	ent of Dominant Species Are OBL, FACW, or FAC: 0 (A/B) alence Index worksheet: Total % Cover of: Multiply by: species 0 x 1 = 0 V species 2 x 3 = 6 J species 100 x 4 = 400 species 0 x 5 = 0 nn Totals: 102 (A) 406 (B) Prevalence Index = B/A = 4.0 ophytic Vegetation Indicators: - Rapid Test for Hydrophytic Vegetation - Dominance Test is >50% - Prevalence Index is $\leq 3.0^1$ - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
FACU Freva Nver: 15 OBL s FACU FACW FACW FACU FACU FACU Cover VPreva Colum Cover Hydro 1 Cover 1 2	Are OBL, FACW, or FAC: 0 (A/B) alence Index worksheet: Total % Cover of: Multiply by: species 0 x 1 = 0 V species 2 x 3 = 6 U species 100 x 4 = 400 species 0 x 5 = 0 Inn Totals: 102 (A) 406 (B) Prevalence Index = B/A = 4.0 ophytic Vegetation Indicators: - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% - Prevalence Index is $\leq 3.0^1$ - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Cover Preva over: 15 OBL s pver: 15 OBL s FACU FACW FACW FACU FACU UPL s Colum 000000000000000000000000000000000000	alence Index worksheet:Total % Cover of:Multiply by:species0 $x 1 = 0$ V species0 $x 2 = 0$ species2 $x 3 = 6$ J species100 $x 4 = 400$ species0 $x 5 = 0$ nn Totals:102(A)Prevalence Index $B/A = 4.0$ ophytic Vegetation Indicators:- Rapid Test for Hydrophytic Vegetation- Dominance Test is >50%- Prevalence Index is $\leq 3.0^1$ - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Cover Tr vver: 15 OBL s FACU FACW FACW FACU FACU UPL s Colum 0 1 Cover Hydro 1 ver: 5 1 2 3 4 2 3 4 2 1 1 3 4 1	Total % Cover of:Multiply by:species0 $x \ 1 = 0$ N species0 $x \ 2 = 0$ species2 $x \ 3 = 6$ J species100 $x \ 4 = 400$ species0 $x \ 5 = 0$ nn Totals:102(A)Prevalence Index $B/A = 4.0$ ophytic Vegetation Indicators:- Rapid Test for Hydrophytic Vegetation- Dominance Test is >50%- Prevalence Index is $\leq 3.0^1$ - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Cover Tr vver: 15 OBL s FACU FACW FACU FAC s FACU FAC u Colum UPL s Colum 1 Cover Hydro ver: 5 1 2 3 4 2 3 4 2 1 1 2 3 4	Total % Cover of:Multiply by:species0 $x \ 1 = 0$ N species0 $x \ 2 = 0$ species2 $x \ 3 = 6$ J species100 $x \ 4 = 400$ species0 $x \ 5 = 0$ nn Totals:102(A)Prevalence Index $B/A = 4.0$ ophytic Vegetation Indicators:- Rapid Test for Hydrophytic Vegetation- Dominance Test is >50%- Prevalence Index is $\leq 3.0^1$ - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
FACU FACW FACU FACW FACU FACU FACU FACU Colum UPL s Colum I Cover Hydro Iver: 5 1 2 3 4 P 1 2 1 2 1 2 1 2 1 1 1 2 1 1	species $\frac{0}{0}$ x 1 = $\frac{0}{100}$ V species $\frac{2}{2}$ x 3 = $\frac{6}{100}$ J species $\frac{100}{0}$ x 4 = $\frac{400}{100}$ species $\frac{100}{102}$ (A) $\frac{406}{100}$ (B) Prevalence Index = B/A = $\frac{4.0}{100}$ Prevalence Index = B/A = $\frac{4.0}{100}$ Prevalence Index is $>50\%$ C - Prevalence Index is $<3.0^{1}$ - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
FACU FACW FACU FACW FACU FACU UPL s Column Over Hydro Wer: 5 1 2 3 4 P 1 P 1 1	V species $\frac{0}{2}$ x 2 = $\frac{0}{400}$ species $\frac{100}{2}$ x 3 = $\frac{6}{6}$ J species $\frac{100}{0}$ x 4 = $\frac{400}{400}$ species $\frac{102}{102}$ (A) $\frac{406}{406}$ (B) Prevalence Index = B/A = $\frac{4.0}{100}$ ophytic Vegetation Indicators: - Rapid Test for Hydrophytic Vegetation - Dominance Test is >50% - Prevalence Index is $\leq 3.0^{1}$ - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
FAC s FACU UPL s FACU UPL s Colum Cover Hydro ver: 5	species $\frac{2}{100}$ x $3 = \frac{6}{400}$ species $\frac{0}{102}$ x $4 = \frac{400}{406}$ (B) Prevalence Index = B/A = $\frac{4.0}{0000000000000000000000000000000000$
FACU UPL s Colum Cover Hydro over: 51 3 4 1 9	J species $\frac{100}{0}$ x 4 = $\frac{400}{x 5}$ species $\frac{102}{102}$ (A) $\frac{406}{406}$ (B) Prevalence Index = B/A = $\frac{4.0}{0}$ ophytic Vegetation Indicators: - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is $\leq 3.0^{1}$ - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
UPL s UPL s UPL s Colum UPL s Colum UPL s Colum UPL s Colum I I Cover I I I I I I I I I I I I I I I I I I I	species 0 nn Totals: 102 $x = 0$ (A) 406 (B) Prevalence Index $= B/A = 4.0$ ophytic Vegetation Indicators: - Rapid Test for Hydrophytic Vegetation - Dominance Test is >50% - Prevalence Index is $\leq 3.0^1$ - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Cover Hydro 	nn Totals: <u>102</u> (A) <u>406</u> (B) Prevalence Index = $B/A = $ <u>4.0</u> ophytic Vegetation Indicators: - Rapid Test for Hydrophytic Vegetation - Dominance Test is >50% - Prevalence Index is $\leq 3.0^1$ - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
I Cover Hydro over: 5 1 3 4 P 1 1	Prevalence Index = B/A = <u>4.0</u> ophytic Vegetation Indicators: - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Cover Hydro over: 5 1 3 4 1	Prevalence Index = B/A = <u>4.0</u> ophytic Vegetation Indicators: - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Cover Hydro ver: 5 1 2 3 4 P 1 2 3 4 P	 ophytic Vegetation Indicators: Rapid Test for Hydrophytic Vegetation Dominance Test is >50% Prevalence Index is ≤3.0¹ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
wer: 5 1 3 4 1	 Rapid Test for Hydrophytic Vegetation Dominance Test is >50% Prevalence Index is ≤3.0¹ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
wer: 5 1 3 4 1	 Rapid Test for Hydrophytic Vegetation Dominance Test is >50% Prevalence Index is ≤3.0¹ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
2 3 4 P 1Indice	 Prevalence Index is ≤3.0¹ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
	 Prevalence Index is ≤3.0¹ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
4 P ¹ Indica	 Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
Pi	data in Remarks or on a separate sheet)
_ _ _ _ _ _ _	
_ _ _ _ _ _ _	roblematic Hydrophytic Vegetation' (Explain)
¹ Indica	
Indica	
	ators of hydric soil and wetland hydrology must
· ·	esent, unless disturbed or problematic.
Cover Defini	itions of Five Vegetation Strata:
ver:	 Woody plants, excluding woody vines,
	pximately 20 ft (6 m) or more in height and 3 in.
	m) or larger in diameter at breast height (DBH).
Saplir	
	ng – Woody plants, excluding woody vines, eximately 20 ft (6 m) or more in height and less
	3 in. (7.6 cm) DBH.
	b – Woody plants, excluding woody vines,
appro:	eximately 3 to 20 ft (1 to 6 m) in height.
Herb	 All herbaceous (non-woody) plants, including
herba	ceous vines, regardless of size, and woody
plants	s, except woody vines, less than approximately 3
	n) in height.
Wood	dy vine – All woody vines, regardless of height.
	· · · · · · · · · · · · · · · · · · ·
Cover	
over: 0	
	ophytic
	tation
	ll Cover cover:_0

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix							
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks	
0 - 12	10YR 5/4	80	7.5YR 4/6	20	С	М	Silt Loam	
-								
		·				·		-
		·	·			·	·	-
-							·	
-								
-								
		·				·		
		·	·		<u></u>	·	·	-
-		·		·		·		_
-		·				·		_
-								
	ncentration D-Den	letion RM	=Reduced Matrix, MS	S-Masko	d Sand Gr	ains	² Location: PL=Pore Lining, M=Matrix.	-
Hydric Soil I						uiii5.	Indicators for Problematic Hydric Soils ³ :	
Histosol			Dark Surface	(S7)			2 cm Muck (A10) (MLRA 147)	
	pipedon (A2)		Polyvalue Be	. ,	nce (S8) (N	ILRA 147.		
Black Hi	• • • •		Thin Dark Su				(MLRA 147, 148)	
	n Sulfide (A4)		Loamy Gleye		, .		Piedmont Floodplain Soils (F19)	
Stratified	Layers (A5)		Depleted Ma	trix (F3)	. ,		(MLRA 136, 147)	
2 cm Mu	ck (A10) (LRR N)		Redox Dark	Surface (I	=6)		Very Shallow Dark Surface (TF12)	
Depleted	Below Dark Surface	e (A11)	Depleted Date	k Surface	e (F7)		Other (Explain in Remarks)	
	ark Surface (A12)		Redox Depre	•				
	lucky Mineral (S1) (L	.RR N,	Iron-Mangan		es (F12) (LRR N,		
MLRA 147, 148) MLRA 136)					2			
Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122)			³ Indicators of hydrophytic vegetation and					
	edox (S5)		Piedmont Flo	•	, ,	•	, , , , , , , , , , , , , , , , , , , ,	
	Matrix (S6)		Red Parent N	Aaterial (F	-21) (MLR	A 127, 147	7) unless disturbed or problematic.	
	ayer (if observed):							
Type:								
Depth (inc	ches):						Hydric Soil Present? Yes No	
Remarks:								

Hydric soil is not observed at this point.

Project/Site: 161 Data Center	_ City/County: Prince William	Sampling Date: 2020-06-10
Applicant/Owner: Land Design Consultants, Inc.	State: Virgini	a Sampling Point: DP-M
Investigator(s): J. Moore, M. Sellers, R. Freeman	_ Section, Township, Range:	
Landform (hillslope, terrace, etc.): Upland	Local relief (concave, convex, none): <u>None</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): \$148 Lat: 38.881530	D8 Long:77.4412567	Datum: WGS 84
Soil Map Unit Name: 27C Hatboro-Codorus Complex	NWI classifi	cation: Freshwater forested
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes 🖌 No (If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrologysignifican	tly disturbed? Are "Normal Circumstances"	present? Yes 🗹 No
Are Vegetation, Soil, or Hydrology naturally	problematic? (If needed, explain any answe	ers 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? Remarks: Taken within uplands of	Yes	No No	Is the Sampled Area within a Wetland?	Yes No
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imag Water-Stained Leaves (B9) Aquatic Fauna (B13)		True Aquatic Plants Hydrogen Sulfide Od	dor (C1) res on Living Roots (C3) ed Iron (C4) on in Tilled Soils (C6) C7)	Secondary Indicators (minimum of two required)
Water Table Present? Yes	No No ge, monitoring		evious inspections), if ava	

Sampling Point: DP-M

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r)		Species?		
1 Fagus grandifolia	55	<u> </u>	FACU	Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
2. Liriodendron tulipifera	25	<u> </u>	FACU	That Are OBL, FACW, of FAC: (A)
				Total Number of Dominant
_{3.} Carpinus caroliniana	15		FAC	Species Across All Strata: <u>3</u> (B)
4				
5				Percent of Dominant Species That Are OBL_EACW or EAC: 33 (A/B)
				That Are OBL, FACW, or FAC: 33 (A/B)
6	05%			Prevalence Index worksheet:
	95%	= Total Cov	er	
50% of total cover: 48	20% of	total cover	19	Total % Cover of: Multiply by:
	2070 01			OBL species 0 x 1 = 0
Sapling Stratum (Plot size: 30 ft r)				FACW species 0 x 2 = 0
1		·		FAC species 20 x 3 = 60
2				
3				
				UPL species 0 x 5 = 0
4				Column Totals: 100 (A) 380 (B)
5				
6				Prevalence Index = $B/A = 3.8$
		= Total Cov		Hydrophytic Vegetation Indicators:
50% of total cover:	20% of	total cover:		1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 15 ft r)				2 - Dominance Test is >50%
1				3 - Prevalence Index is ≤3.0 ¹
				4 - Morphological Adaptations ¹ (Provide supporting
2				data in Remarks or on a separate sheet)
3				Problematic Hydrophytic Vegetation ¹ (Explain)
4				
5				
6				¹ Indicators of hydric soil and wetland hydrology must
0				be present, unless disturbed or problematic.
	·	= Total Cov	er	Definitions of Five Vegetation Strata:
50% of total cover:	20% of	total cover:		
Herb Stratum (Plot size: 5 ft r)				Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
	5	~	FAC	(7.6 cm) or larger in diameter at breast height (DBH).
1. Acer rubrum			17.0	
2				Sapling – Woody plants, excluding woody vines,
3				approximately 20 ft (6 m) or more in height and less
4.				than 3 in. (7.6 cm) DBH.
5	-			Shrub – Woody plants, excluding woody vines,
5				approximately 3 to 20 ft (1 to 6 m) in height.
6				
7				Herb – All herbaceous (non-woody) plants, including
8				herbaceous vines, regardless of size, and woody
				plants, except woody vines, less than approximately 3
9				ft (1 m) in height.
10				
11				Woody Vine – All Woody Vines regardless of height
				Woody vine – All woody vines, regardless of height.
			er	Woody vine – All woody vines, regardless of height.
	5%	= Total Cov		Woody vine – All woody vines, regardless of height.
50% of total cover: <u>3</u>	5%	= Total Cov		Woody vine – All woody vines, regardless of height.
50% of total cover: <u>3</u> <u>Woody Vine Stratum</u> (Plot size: <u>30 ft r</u>)	5%	= Total Cov		Woody vine – All woody vines, regardless of height.
Woody Vine Stratum (Plot size: 30 ft r)		= Total Cov	1	Woody vine – All woody vines, regardless of height.
Woody Vine Stratum (Plot size: 30 ft r)	<u>5%</u> 20% of	= Total Cov total cover:	1	Woody vine – All woody vines, regardless of height.
Woody Vine Stratum (Plot size: 30 ft r) 1 2	5% 20% of	= Total Cov		Woody vine – All woody vines, regardless of height.
Woody Vine Stratum (Plot size: 30 ft r) 1	<u>5%</u> 20% of	= Total Cov		Woody vine – All woody vines, regardless of height.
Woody Vine Stratum (Plot size: 30 ft r) 1 2	<u>5%</u> 20% of	= Total Cov		Woody vine – All woody vines, regardless of height.
Woody Vine Stratum (Plot size: 30 ft r) 1	20% of	= Total Cov	1 	
Woody Vine Stratum (Plot size: 30 ft r) 1 2 3 3	20% of	= Total Cov total cover:		Hydrophytic
Woody Vine Stratum (Plot size: 30 ft r) 1	<u>5%</u> 20% of	= Total Cov total cover:	1	Hydrophytic Vegetation
Woody Vine Stratum (Plot size: 30 ft r) 1	<u>5%</u> 20% of	= Total Cov total cover:	1	Hydrophytic

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth	Matrix									
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0 - 12	2.5YR 4/3	100					Silt Loam			
-										
		·		·						
-										
-										
_										
-		·					. <u></u>			
-										
-										
	oncentration, D=Dep	lation DM_E	Poducod Matrix M	-Mookod	Sond Cro	ino	² Location: Pl		og M_Motrix	
Hydric Soil I					Sanu Gra				oblematic H	
-			Dark Surface	(97)					(MLRA 1	-
Histosol (A1) Histic Epipedon (A2)			Polyvalue Below Surface (S8) (MLRA 147, 7					•	Redox (A16)	,
Black His			Thin Dark Su		, 1 40) <u> </u>	(MLRA 14				
	n Sulfide (A4)		Loamy Gleye	,,	Pi	•	odplain Soils	(F19)		
	Layers (A5)		Depleted Ma		,			(MLRA 13		· · ·
2 cm Mu	ck (A10) (LRR N)		Redox Dark	Surface (F6	6)		Ve	ery Shallow	Dark Surface	e (TF12)
Depleted	Below Dark Surface	e (A11)	Depleted Dar	k Surface	(F7)		0	ther (Explai	n in Remarks	s)
Thick Da	ark Surface (A12)		Redox Depre	ssions (F8)					
Sandy M	lucky Mineral (S1) (L	.RR N,	Iron-Mangan	ese Masse	s (F12) (L	.RR N,				
	. 147, 148)		MLRA 13							
Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122)				/drophytic veg	-					
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 14			•	•	logy must be					
-	Matrix (S6)		Red Parent N	Aaterial (F2	1) (MLR/	A 127, 147	7) unl	ess disturb	ed or problem	natic.
	ayer (if observed):									
Туре:										,
Depth (inc	ches):						Hydric Soil	Present?	Yes	No
Remarks:										

Hydric soil is not observed at this point.

Project/Site: 161 Data Center	City/County: Prince William	Sampling Date: 2020-06-10
Applicant/Owner: Land Design Consultants, Inc.	_{State:} Virginia	Sampling Point: DP-N
Investigator(s): J. Moore, M. Sellers, R. Freeman	Section, Township, Range:	
Landform (hillslope, terrace, etc.): Upland	Local relief (concave, convex, none): None	Slope (%): 2
Subregion (LRR or MLRA): <u>S 148</u> Lat: <u>38.88153</u>	08 Long: -77.4412395	Datum: WGS 84
Soil Map Unit Name: 10C Buckhall Ioam	NWI classific	ation: N/A
Are climatic / hydrologic conditions on the site typical for this time of	i year? Yes 🖌 No (If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology significar	ntly disturbed? Are "Normal Circumstances" p	resent? Yes 🔽 No
Are Vegetation, Soil, or Hydrology naturally	problematic? (If needed, explain any answe	rs 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? Remarks: Taken within uplands al	Yes Yes	No_ ✔ No_ ✔ No_ ✔	Is the Sampled Area within a Wetland?	Yes No
HYDROLOGY Wetland Hydrology Indicators:				Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is		True Aquatic Plants Hydrogen Sulfide O	dor (C1) res on Living Roots (C3) ed Iron (C4) on in Tilled Soils (C6) (C7)	 Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Water Table Present? Yes _	No <u>V</u> No <u>V</u> ge, monitoring		wetland H evious inspections), if ava	Hydrology Present? Yes No

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

Sampling Point: DP-N

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r)		Species?		
1. Fagus grandifolia	35	V	FACU	Number of Dominant Species That Are OBL, FACW, or FAC: 1(A)
2. Quercus rubra	15	~	FACU	
				Total Number of Dominant
3. Liriodendron tulipifera	10		FACU	Species Across All Strata: <u>4</u> (B)
_{4.} Nyssa sylvatica	10		FAC	
5. Carpinus caroliniana	5		FAC	Percent of Dominant Species That Are OBL, FACW, or FAC: 25 (A/B)
6				
	75%	= Total Cov	or	Prevalence Index worksheet:
20				Total % Cover of: Multiply by:
50% of total cover: <u>38</u>	20% of	total cover:	15	OBL species 0 x 1 = 0
Sapling Stratum (Plot size: 30 ft r)				
1. Fagus grandifolia	25	~	FACU	FACW species $\frac{0}{20}$ x 2 = $\frac{0}{60}$
				FAC species $\frac{20}{27}$ x 3 = $\frac{60}{27}$
2				FACU species <u>85</u> x 4 = <u>340</u>
3				UPL species 0 x 5 = 0
4				Column Totals: 105 (A) 400 (B)
5				
6				Prevalence Index = B/A = 3.8
	25%	= Total Cov	er	Hydrophytic Vegetation Indicators:
10				
50% of total cover: <u>13</u>	20% of	total cover:	5	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 15 ft r)				2 - Dominance Test is >50%
1				3 - Prevalence Index is ≤3.0 ¹
2				4 - Morphological Adaptations ¹ (Provide supporting
				data in Remarks or on a separate sheet)
3				Problematic Hydrophytic Vegetation ¹ (Explain)
4				
5				
6				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
	:	= Total Cov	er	
			0.	Definitions of Five Vegetation Strata:
50% of total cover:	20% of	total cover		Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r)		total cover:		Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: 5 ft r)		total cover:	FAC	
<u>Herb Stratum</u> (Plot size: <u>5 ft r</u>) 1. Smilax rotundifolia	5	 ✓ 	FAC	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Smilax rotundifolia 2.	5	v	FAC	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines,
<u>Herb Stratum</u> (Plot size: <u>5 ft r</u>) 1. Smilax rotundifolia	5	v	FAC	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Smilax rotundifolia 2.	5	v	FAC	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines,
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Smilax rotundifolia 2.	5	v	FAC	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r) 1. Smilax rotundifolia 2	5		FAC	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
Herb Stratum (Plot size: 5 ft r 1. Smilax rotundifolia 2. . 3. . 4. . 5. . 6. .	5	<u> </u>	FAC	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Smilax rotundifolia) 2	5		FAC	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r) 1. Smilax rotundifolia 2. 3. 4. 5. 6. 7. 8.	5		FAC	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including
Herb Stratum (Plot size: 5 ft r) 1. Smilax rotundifolia) 2	5		FAC	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
Herb Stratum (Plot size: 5 ft r) 1. Smilax rotundifolia 2. 3. 4. 5. 6. 7. 8.	5		FAC	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Smilax rotundifolia	5		FAC	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3
Herb Stratum (Plot size: 5 ft r) 1. Smilax rotundifolia) 2	5		FAC	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Smilax rotundifolia 2. 3. 4. 5. 6. 7. 8. 9. 10. 11.	5 		FAC	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Smilax rotundifolia 2	5		FAC	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Smilax rotundifolia 2. 3. 4. 5. 6. 7. 8. 9. 10. 11.	5 		FAC	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Smilax rotundifolia 2	5 	Total Covers	FAC	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Smilax rotundifolia 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover: <u>3</u> Woody Vine Stratum (Plot size: <u>30 ft r</u>) 1.	5	Total Covers	FAC	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Smilax rotundifolia 2	5 	Total Cov	FAC	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Smilax rotundifolia 2	5 		FAC	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Smilax rotundifolia 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover: <u>3</u> Woody Vine Stratum (Plot size: <u>30 ft r</u>) 1. 2. 3. 4.	5 		FAC	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Smilax rotundifolia 2	5 		FAC	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Smilax rotundifolia 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover: <u>3</u> Woody Vine Stratum (Plot size: <u>30 ft r</u>) 1. 2. 3. 4.	5 		FAC	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Smilax rotundifolia 2	5 	Total Cover:	FAC	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height. Hydrophytic
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Smilax rotundifolia 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover: <u>3</u> Woody Vine Stratum (Plot size: <u>30 ft r</u>) 1. 2. 3. 4.	5 	Total Cover:	FAC	 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height. Hydrophytic Vegetation

Hydrophytic vegetation is not dominant in the vicinity.

SOIL

Depth Matrix Redox Features (inches) Color (moist) % Type ¹ Loc ² Texture Remarks 0 - 6 10YR 5/4 90 10YR 3/2 10 D M Silt Loam 6 - 12 10YR 6/4 90 10YR 5/8 10 D M Silty clay loam	
0-6 10YR 5/4 90 10YR 3/2 10 D M Silt Loam	
<u>6 - 12</u> 10YR 6/4 90 10YR 5/8 10 D M silty clay loam	
- <u> </u>	
·	
-	
· · · · · · · · · · · · · · · · · · ·	
·	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.	
Hydric Soil Indicators: Indicators for Problematic Hydric Soils	:
Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147)	
Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Prairie Redox (A16)	
Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) (MLRA 147, 148)	
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19)	
Stratified Layers (A5) Depleted Matrix (F3) (MLRA 136, 147)	
2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks)	
Thick Dark Surface (A12) Redox Depressions (F8)	
Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N,	
MLRA 147, 148) MLRA 136)	
Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) ³ Indicators of hydrophytic vegetation and	
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) wetland hydrology must be present,	
Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic.	
Restrictive Layer (if observed):	
Туре:	
Depth (inches): No	
Remarks:	

Hydric soil is not observed at this point.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 161 Data Center	_ City/County: Prince William	Sampling Date: 2020-06-10
Applicant/Owner: Land Design Consultants, Inc.	State: Virginia	_ Sampling Point: DP-O
Investigator(s): J. Moore, M. Sellers, R. Freeman	_ Section, Township, Range:	
Landform (hillslope, terrace, etc.): Depression	Local relief (concave, convex, none): None	Slope (%): 2
Subregion (LRR or MLRA): <u>\$ 148</u> Lat: <u>38.881530</u>	08 Long: -77.4413186	Datum: WGS 84
Soil Map Unit Name: 10C Buckhall Ioam	NWI classifica	ation: N/A
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes 🖌 No (If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hydrology significan	tly disturbed? Are "Normal Circumstances" p	resent? Yes 🔽 No
Are Vegetation, Soil, or Hydrology naturally	problematic? (If needed, explain any answer	s 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 🖌	No No No	Is the Sampled Area within a Wetland?	Yes 🖌 No
Remarks:				
Taken within PFO-wetl	ands insid	e flag Q10.		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)				
Primary Indicators (minimum of one is required; chec	Primary Indicators (minimum of one is required; check all that apply)					
✓ Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) ✓ Water-Stained Leaves (B9) Aquatic Fauna (B13)	True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living I Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Sc Thin Muck Surface (C7) Other (Explain in Remarks)	Dry-Season Water Table (C2)				
Water Table Present? Yes No _	_ Depth (inches): _ Depth (inches): _ Depth (inches): <u>.1</u> well, aerial photos, previous inspec	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:				
Remarks: Wetland hydrology is observed ir	ו the vicinity.					

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

Sampling Point: DP-O

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft r)		Species?		Number of Dominant Species
1. Liquidambar styraciflua	20	~	FAC	That Are OBL, FACW, or FAC: <u>8</u> (A)
2. Nyssa sylvatica	15	~	FAC	
3. Carpinus caroliniana	10	~	FAC	Total Number of Dominant
				Species Across All Strata: 8 (B)
				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100 (A/B)
6				
	45%	= Total Cov	/er	Prevalence Index worksheet:
50% of total cover: 23	200/ of	total anyor	. 9	Total % Cover of: Multiply by:
	20% 01			OBL species 0 x 1 = 0
Sapling Stratum (Plot size: <u>30 ft r</u>)	00		F AQ	FACW species <u>15</u> x 2 = <u>30</u>
1. Carpinus caroliniana	20	~	FAC	FAC species 90 x 3 = 270
2. Liquidambar styraciflua	20	✓	FAC	FACU species 0 x 4 = 0
3				
4				
5				Column Totals: 105 (A) 300 (B)
			·	Prevalence Index = B/A = 2.9
6	40%		·	
	40 /0	= Total Cov	/er	Hydrophytic Vegetation Indicators:
50% of total cover: 20	20% of	total cover	: 8	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 15 ft r)				✓ 2 - Dominance Test is >50%
1. Vaccinium corymbosum	10	~	FACW	✓ 3 - Prevalence Index is ≤3.0 ¹
				4 - Morphological Adaptations ¹ (Provide supporting
2				data in Remarks or on a separate sheet)
3			·	Problematic Hydrophytic Vegetation ¹ (Explain)
4				(
5				The discount of the data and the discount of the data is a second
6				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
	100/			be present, amose aletarbed er presiemate.
	10%	= Total Cov	/er	Definitions of Five Vegetation Strates
500 () 5		= Total Cov		Definitions of Five Vegetation Strata:
50% of total cover: 5				Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r)	20% of		2	Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: 5 ft r)	20% of			Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r)	20% of		2	Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Athyrium angustum 2. Carex grayi	20% of 5 5	total cover	2 FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 5 ft r) 1. Athyrium angustum	20% of 5 5	total cover	2 FAC	Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Athyrium angustum 2. Carex grayi	20% of 5 5	total cover	2 FAC	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Athyrium angustum 2. Carex grayi 3 4 5	20% of 5 5	total cover	2 FAC FACW	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines,
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Athyrium angustum 2. Carex grayi	20% of 5 5	total cover	2 FAC FACW	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Athyrium angustum 2. Carex grayi 3 4 5	20% of 5 5	total cover	2 FAC FACW	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including
Herb Stratum (Plot size: 5 ft r) 1. Athyrium angustum 2. Carex grayi 3	20% of 5	total cover	2 FAC FACW	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
Herb Stratum (Plot size: 5 ft r) 1. Athyrium angustum 2. Carex grayi 3	20% of 5 	total cover	2 FAC FACW	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3
Herb Stratum (Plot size: 5 ft r) 1. Athyrium angustum 2. Carex grayi 3	20% of 5 		2 FAC FACW	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
Herb Stratum (Plot size: 5 ft r) 1. Athyrium angustum 2. Carex grayi 3	20% of 5 		2 FAC FACW	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3
Herb Stratum (Plot size: 5 ft r) 1. Athyrium angustum 2. Carex grayi 3	20% of 5 		2 FAC FACW 	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Athyrium angustum 2. Carex grayi 3	20% of 5 		2 FAC FACW 	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Athyrium angustum 2. Carex grayi 3	20% of 5 5 	total cover	2 FAC FACW	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: 5 ft r) 1. Athyrium angustum 2. Carex grayi 3	20% of 5 5 	total cover	2 FAC FACW	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Herb Stratum (Plot size: <u>5 ft r</u>) 1. Athyrium angustum . 2. Carex grayi . 3	20% of 5 5 	total cover	2 FAC FACW	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
Herb Stratum (Plot size: 5 ft r) 1. Athyrium angustum 2. Carex grayi 3	20% of 5 5 	total cover	2 FAC FACW	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
Herb Stratum (Plot size: 5 ft r) 1. Athyrium angustum 2. Carex grayi 3	20% of 5 5 	total cover	2 FAC FACW FACW FACW FACW FACW FACW FACW	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
Herb Stratum (Plot size: 5 ft r) 1. Athyrium angustum 2. Carex grayi 3	20% of 5 5 	total cover	2 FAC FACW FACW Part 1 Part 1 Pa	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
Herb Stratum (Plot size: 5 ft r) 1. Athyrium angustum 2. Carex grayi 3	20% of 5 5 	total cover	2 FAC FACW FACW Part 1 Part 1 Pa	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
Herb Stratum (Plot size: 5 ft r) 1. Athyrium angustum 2. Carex grayi 3	20% of 5 5 	total cover	2 FAC FACW	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
Herb Stratum (Plot size: 5 ft r) 1. Athyrium angustum 2. Carex grayi 3	20% of 5 5 	total cover	2 FAC FACW FACW FACW FACW FACW FACW	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height. Hydrophytic
Herb Stratum (Plot size: 5 ft r) 1. Athyrium angustum 2. Carex grayi 3	20% of 5 5 	total cover	2 FAC FACW FACW Per 2 //er	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
Herb Stratum (Plot size: 5 ft r) 1. Athyrium angustum 2. Carex grayi 3	20% of 5 5 	total cover	2 FAC FACW FACW Per 2 //er	 Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height. Hydrophytic Vegetation

Hydrophytic vegetation is dominant in the vicinity.

SOIL

Profile Desc	ription: (Describe	to the dep	oth needed to docur	ment the	indicator	or confirn	n the absence	of indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0 - 3							Silty clay loam	Gleyed 1 5/10Y
3 - 10	10YR 6/1	80	10YR 5/8	20	С	М	Silty clay loam	
-								
					·			
					<u> </u>			
-								
-								
_								
·								
					- <u> </u>			
-								
		letion, RM	=Reduced Matrix, M	S=Maske	d Sand Gr	ains.		PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators:						Indic	ators for Problematic Hydric Soils ³ :
Histosol	· · /		Dark Surface	· · ·				2 cm Muck (A10) (MLRA 147)
· · ·	pipedon (A2)		Polyvalue Be		· · ·		, 148) (Coast Prairie Redox (A16)
Black Hi	. ,		Thin Dark Su		, .	47, 148)	-	(MLRA 147, 148)
	n Sulfide (A4) I Layers (A5)		Loamy Gleye		(F2)		ŀ	Piedmont Floodplain Soils (F19)
	ick (A10) (LRR N)		 Depleted Ma Kedox Dark 	• •	F6)		,	(MLRA 136, 147) /ery Shallow Dark Surface (TF12)
	Below Dark Surfac	e (A11)	Depleted Da	`	,			Other (Explain in Remarks)
	ark Surface (A12)	()	Redox Depre				`	· · · · · (· · · · · · · · · · · · · · · · · ·)
	lucky Mineral (S1) (LRR N,	Iron-Mangan			LRR N,		
	A 147, 148)		MLRA 13	6)				
Sandy G	ileyed Matrix (S4)		Umbric Surfa	ace (F13)	(MLRA 13	6, 122)	³ Inc	licators of hydrophytic vegetation and
	edox (S5)		Piedmont Florence	•	· ,	•		etland hydrology must be present,
	Matrix (S6)		Red Parent N	Material (F	-21) (MLR	A 127, 14	7) ur	less disturbed or problematic.
	_ayer (if observed)							
Туре:								
Depth (ind	ches):						Hydric Soi	Present? Yes V No
Remarks:								
Hydric s	oil is observ	ed at t	his point.					

APPENDIX IV

PERENNIAL FLOW DETERMINATION FORMS



PERENNIAL FLOW DETERMINATION

(Adapted from Fairfax County, Virginia's Perennial Stream Field Identification Protocol)

General Information

Project/Site:	161 Data Cer	nter		Date:	6/9/2020		
Watershed:	Lower Poton	nac- Quantico Cr	eek (HUC 02070011)	Time:	11:00 AM		
Field Investigator:	TNT Environ	mental Inc.		State:	VA		
				County:	Prince William		
Reach Number:	1						
Stream Reach S	Summary						
Approximate Reach I	Length:	1,782		IS THIS I	REACH PERENNIAL	? Yes	
Average Channel Wid	dth:	6'		Drainage	area to the reach:	0.6 sq miles (3	84 acres)
Average Channel De	pth:	4"					
Average Water Depth	n: Riffles	1"					
Average Water Depth	n: Pools	7"					
Data Point Location:	 -	Flag G68					
Recent Weathe	r Data						
Rain Gage:		NOKESVILL	E 4.0 S, VA US	Palmer Dr	ought Index Value:	Mid (-1.99 to +	1.99)
Date of Last Rainfall:		6/6/2020					
Rainfall Amount:	-	0.23"					
			Represent	ative Photographs			



Upstream View of Channel

Downstream View of Channel

	Fie	eld Indicators			
1) Streamflow and Hydrology	Absent	Weak	Moderate	Strong	Score
A) Presence or absence of flowing water and >48 hrs since last rainfall	0	1	2	3	2
B) Presence of high groundwater table or seeps and springs	0	1	2	3	2
C) Leaflitter in streambed	1.5	1	0.5	0	0.5
D) Drift lines	0	0.5	1	1.5	1.5
E) Sediment on debris or plants	0	0.5	1	1.5	1
			Total Stro	amflow and Hydrology P	ointe: 7

Total Streamflow and Hydrology Points: 7

Streamflow and Hydrology Notes

ENVIRONMENTAL		Project/Site Field Inves Date: Time:		161 Data C TNT Enviro 6/9/2020 11:00 AM	enter onmental Inc.		- - -	DATA POIN		Page 2 of 1
2) Geomorphology		Absent		Weak		Moderate		Strong		Score
A) Riffle-Pool Sequence		0		1		2		3		2
B) Substrate Sorting (USDA Texture in Streambed)		0		1		2		3		2
C) Natural Levees		0		1		2		3		0
D) Sinuosity		0		1		2		3		2
E) Active or Relic Floodplain		0		1		2		3		1
F) Braided Channel		0		1	_	2		3		0
G) Recent Alluvial Deposits		0		1		2		3		1
H) Bankfull Bench Present		0		1		2		3		2
) Continuous Bed and Bank		0		1		2		3		3
J) 2nd Order or Greater Channel Present	Yes = 3		No = 0							3
							Total	Geomorpho	ology Points:	16
3) Streambed Soils										
A) Redoximorphic Features present in sides of channel	Present = 0		Absent = 1	5						0
B) Chroma	Gleyed = 3		1 =2		2 = 1		>2 = 0			1
5) omonia	Cloyed - C		1-2		2 - 1			Streambed	Soils Points:	1
4) Vegetation		Absent		Weak		Moderate		Strong		Score
A) Rooted AQUATIC Plants in Streambed		0		1		2		3		0
B) Presence of Periphyton/Green algae		0		1		2		3		1
C) Iron Oxidizing Bacteria/Fungus D) Wetland Plants in Streambed (Skip if no plants		0		0.5		1		1.5	> FAC or	0.5
n streambed)	SAV = 3		OBL = 1.5	i	FACW = 1		FAC = 0.5		None = 0	0
								Total Veget	ation Points:	1.5
		Geomorp	bhology, Soi	Is and Vegeta	ation Notes		-			
5) Benthic Macroinvertebrates		Absent		Weak		Moderate		Strong		Score
A) Benthic Macroinvertebrates		0		0.5		1		1.5		1.5
B) Bivalves		0		1		2		3		0
C)EPT Taxa	Present = 3		Absent = (٤		0		0
						Tot	al Benthic M	acroinverte	brate Points:	1.5
i) Vertebrates		Absent		Weak		Moderate		Strong		Score
A) Fish		0		0.5		1		1.5		1
3) Amphibians		0		0.5		1		1.5		1.5
, ,	1	-							brate Points:	2.5
		E	Benthics/Am	phibians Fou	und					



PERENNIAL FLOW DETERMINATION

(Adapted from Fairfax County, Virginia's Perennial Stream Field Identification Protocol)

General Information

Project/Site:	161 Data C	enter		Date:		6/9/2020		
Watershed:	Lower Pote	omac- Quantico C	reek (HUC 02070011)	Time:		12:00 PM		
Field Investigator:	TNT Enviro	onmental Inc.		State:		VA		
		_		County	:	Prince William		
Reach Number:	2							
Stream Reach	Summary							
Approximate Reach	Length:	801		IS THI	IS R	REACH PERENNIAL?	No	
Average Channel Wi	idth:	3'		Draina	ge a	area to the reach:	0.07 sq miles	(44.8 acres)
Average Channel De	epth:	1"						
Average Water Deptl		0.5						
Average Water Dept		2"						
Data Point Location:	:	Flag O12						
Recent Weathe	er Data							
Rain Gage:		NOKESVILL	E 4.0 S, VA US	Palmer	r Dr	ought Index Value:	Mid (-1.99 to	+1.99)
Date of Last Rainfall	l:	6/6/2020						
Rainfall Amount:		0.23"						
			Representat	ive Photographs				
					The second			

Upstream View of Channel

Downstream View of Channel

	Fie	eld Indicators			
1) Streamflow and Hydrology	Absent	Weak	Moderate	Strong	Score
A) Presence or absence of flowing water and >48 hrs since last rainfall	0	1	2	3	2
B) Presence of high groundwater table or seeps					
and springs	0	1	2	3	2
C) Leaflitter in streambed	1.5	1	0.5	0	0.5
D) Drift lines	0	0.5	1	1.5	1.5
E) Sediment on debris or plants	0	0.5	1	1.5	1
			Total Str	amflow and Hydrology P	ointe: 7

Total Streamflow and Hydrology Points:

Streamflow and Hydrology Notes

- Yeif		Project/Site Field Invest Date: Time:		161 Data C TNT Enviro 6/9/2020 12:00 PM	enter onmental Inc.			DATA POIN		Page 2 of 2 2
ENVIRONMENTAL		Time:		12:00 PM						
2) Geomorphology		Absent		Weak		Moderate		Strong		Score
A) Riffle-Pool Sequence		0		1		2		3		2
B) Substrate Sorting (USDA Texture in Streambed)		0		1		2		3		2
C) Natural Levees		0		1		2		3		0
D) Sinuosity		0		1		2		3		2
E) Active or Relic Floodplain		0		1		2		3		0
F) Braided Channel		0		1		2		3		0
G) Recent Alluvial Deposits		0		1	_	2		3		0
H) Bankfull Bench Present		0		1		2		3		1
I) Continuous Bed and Bank		0		1		2		3		3
J) 2nd Order or Greater Channel Present	Yes = 3		No = 0							0
							Total	Geomorpho	ology Points:	10
3) Streambed Soils										
A) Redoximorphic Features present in sides of channel	Present = 0		Absent = 1.5	:						0
B) Chroma	Gleyed = 3		1 =2	,	2 = 1		>2 = 0			0
B) Ghioma	Gleyeu = 5		1 -2		2 – 1			Streambed	Soils Points:	0
							Total	Streambeu	Sons Points:	
4) Vegetation		Absent		Weak		Moderate		Strong		Score
A) Rooted AQUATIC Plants in Streambed		0		1	_	2		3		0
B) Presence of Periphyton/Green algae		0	_	1		2		3		1
C) Iron Oxidizing Bacteria/Fungus D) Wetland Plants in Streambed (Skip if no plants		0		0.5		1		1.5	> FAC or	0
in streambed)	SAV = 3		OBL = 1.5		FACW = 1		FAC = 0.5		None = 0	0
								Total Veget	ation Points:	1
		Geomorp	hology, Soils	and Vegeta	ation Notes					
5) Benthic Macroinvertebrates		Absent		Weak	_	Moderate		Strong		Score
A) Benthic Macroinvertebrates		0	_	0.5		1		1.5		0.5
B) Bivalves		0		1		2		3		0
С)ЕРТ Таха	Present = 3		Absent = 0							0
						Tota	al Benthic M	acroinvertel	brate Points:	0.5
6) Vertebrates		Absent		Weak		Moderate		Strong		Score
A) Fish		0		0.5		1		1.5		0
P) Amphikiana		0		0.5		1		1.5		1.5
B) Amphibians									_	
b) Amphilolans								Total Vertel	brate Points:	1.5
		В	enthics/Amp	hibians Fou	und			Total Vertel	brate Points:	1.5



PERENNIAL FLOW DETERMINATION

(Adapted from Fairfax County, Virginia's Perennial Stream Field Identification Protocol)

General Information

					Manual Andrew Manual Street
		Representa	ative Photographs		
Rainfall Amount:	0.2	3"			
Date of Last Rainfall:	6/6/2				
Rain Gage:		OKESVILLE 4.0 S, VA US	Palmer D	rought Index Value:	<u>Mid (-1.99 to</u> +1.99)
Recent Weather I	Data				
Data Point Location:	Flag V.	49			
Average Water Depth: P	Pools 3				
Average Water Depth: R					
Average Channel Depth			Diamage		<u>- 0.00 04 mmo</u> (001 1 00.00)
Approximate Reach Ler Average Channel Width				REACH PERENNIAL? area to the reach:	No 0.06 sq miles (38.4 acres)
Stream Reach Su	mmary				
Reach Number:	3				
			County:	Prince William	
Field Investigator:	TNT Environmenta	l Inc.	State:	VA	
Watershed:	Lower Potomac- Q	uantico Creek (HUC 02070011)	Time:	2:00 PM	
Project/Site:	161 Data Center		Date:	6/9/2020	



Upstream View of Channel

Downstream View of Channel

	Fie	eld Indicators			
1) Streamflow and Hydrology	Absent	Weak	Moderate	Strong	Score
A) Presence or absence of flowing water and >48 hrs since last rainfall	0	1	2	3	1
B) Presence of high groundwater table or seeps and springs	0	1	2	3	1
C) Leaflitter in streambed	1.5	1	0.5	0	0.5
D) Drift lines	0	0.5	1	1.5	1.5
E) Sediment on debris or plants	0	0.5	1	1.5	1
			Total Strea	amflow and Hydrology P	oints:

Streamflow and Hydrology Notes

Minor flow to the water, mainly standing pools.

ENVIRONMENTAL		Project/Site Field Invest Date: Time:		161 Data Co TNT Enviro 6/9/2020 2:00 PM	enter nmental Inc.			DATA POI		Page 2 of 3
2) Geomorphology		Absent		Weak		Moderate		Strong		Score
A) Riffle-Pool Sequence		0		1		2		3		2
B) Substrate Sorting (USDA Texture in Streambed)		0		1		2		3		2
C) Natural Levees		0		1		2		3		1
D) Sinuosity		0	_	1		2		3		1
E) Active or Relic Floodplain		0		1		2		3		0
F) Braided Channel		0		1		2		3		0
G) Recent Alluvial Deposits		0		1		2		3		0
H) Bankfull Bench Present		0		1		2		3		1
I) Continuous Bed and Bank		0		1		2		3		2
J) 2nd Order or Greater Channel Present	Yes = 3		No = 0							0
							Total	Geomorpho	ology Points:	9
3) Streambed Soils										
 A) Redoximorphic Features present in sides of channel 	Present = 0		Absent = 1.5	5						0
3) Chroma	Gleyed = 3		1 =2		2 = 1		>2 = 0			0
,								Streambed	Soils Points:	0
l) Vegetation		Absent		Weak		Moderate		Strong		Score
		0		1		2		3		
A) Rooted AQUATIC Plants in Streambed						2		3		0
B) Presence of Periphyton/Green algae		0		1		2				1
C) Iron Oxidizing Bacteria/Fungus D) Wetland Plants in Streambed (Skip if no plants	SAV 2	0	OBL = 1.5	0.5		1		1.5	> FAC or	0
n streambed)	SAV = 3		OBL = 1.5		FACW = 1		FAC = 0.5		None = 0 ation Points:	0
		Geomorp	hology, Soils	and Vegeta	ation Notes					
5) Benthic Macroinvertebrates	1	Absent		Weak		Moderate		Strong		Score
A) Benthic Macroinvertebrates		0		0.5		1		1.5		1
B) Bivalves		0		1		2		3		0
С)ЕРТ Таха	Present = 3		Absent = 0							0
						Tota	al Benthic M	acroinverte	brate Points:	1
i) Vertebrates		Absent		Weak		Moderate		Strong		Score
A) Fish		0		0.5		1		1.5		0
3) Amphibians		0		0.5		1		1.5		1.5
<i>,</i> .									brate Points:	1.5
Vater boatman,mosquito larvae, aquatic worms, sn	ails, tadpoles		enthics/Amp	hibians Fou	Ind					



PERENNIAL FLOW DETERMINATION

(Adapted from Fairfax County, Virginia's Perennial Stream Field Identification Protocol)

General Information

Project/Site:	161 Data Center	Date:	6/9/2020	
Watershed:	Lower Potomac- Quantico Creek (HUC 02070011)	Time:	10:30 AM	
Field Investigator:	TNT Environmental Inc.	State:	VA	
		County:	Prince William	
Reach Number:	4			
Stream Reach Su	ummary			
Approximate Reach Le	ngth: 401	IS THIS	REACH PERENNIAL?	No
Average Channel Width	n: <u>4'</u>	Drainage	area to the reach:	0.04 sq miles (25.6 acres)
Average Channel Dept	h: 0.5"			
Average Water Depth:	Riffles 1"			
Average Water Depth:	Pools1"			
Data Point Location:	Flag ZA 10			
Recent Weather	Data			
Rain Gage:	NOKESVILLE 4.0 S, VA US	Palmer D	rought Index Value:	Mid (-1.99 to +1.99)
Date of Last Rainfall:	6/6/2020			
Rainfall Amount:	0.23"			
	Representativ	ve Photographs		
			S 1 S	



Upstream View of Channel

Downstream View of Channel

	Fie	eld Indicators			
1) Streamflow and Hydrology	Absent	Weak	Moderate	Strong	Score
A) Presence or absence of flowing water and >48 hrs since last rainfall	0	1	2	3	0
B) Presence of high groundwater table or seeps and springs	0	1	2	3	1
C) Leaflitter in streambed	1.5	1	0.5	0	0
D) Drift lines	0	0.5	1	1.5	0.5
E) Sediment on debris or plants	0	0.5	1	1.5	0.5
			Total Strea	amflow and Hydrology P	oints: 2

Streamflow and Hydrology Notes

ENVIRONMENTAL		Project/Site Field Inves Date: Time:		161 Data C TNT Enviro 6/9/2020 10:30 AM	center			DATA POINT:		Page 2 of 4
2) Geomorphology		Absent		Weak		Moderate	Strong			Score
A) Riffle-Pool Sequence		0		1		2		3		1
B) Substrate Sorting (USDA Texture in Streambed))	0	0.5	1		2		3		0.5
C) Natural Levees		0		1		2		3		0
D) Sinuosity		0		1		2		3		0
E) Active or Relic Floodplain		0		1		2		3		0
F) Braided Channel		0		1		2		3		0
G) Recent Alluvial Deposits		0		1		2		3		0
H) Bankfull Bench Present		0	0.5	1		2		3		0.5
) Continuous Bed and Bank		0		1		2		3		1
J) 2nd Order or Greater Channel Present	Yes = 3	Ť	No = 0							0
,							Total	Geomorph	ology Points:	3
B) Streambed Soils										
A) Redoximorphic Features present in sides of channel	Present = 0		Absent = 1.5							1.5
3) Chroma	Gleyed = 3		1 =2		2 = 1		>2 = 0			0
) oniona	Gleyeu = 5		1 -2		2 - 1			Stroombod	Soils Points:	1.5
							Total	Streambeu	Solis Folitis.	1.5
I) Vegetation		Absent	_	Weak		Moderate		Strong		Score
A) Rooted AQUATIC Plants in Streambed		0		1		2		3		0
3) Presence of Periphyton/Green algae		0		1		2		3		0
C) Iron Oxidizing Bacteria/Fungus D) Wetland Plants in Streambed (Skip if no plants		0		0.5		1		1.5	> FAC or	0
n streambed)	SAV = 3		OBL = 1.5		FACW = 1		FAC = 0.5		None = 0	0
								Total Vege	tation Points:	0
		Geomorp	hology, Soils	s and Veget	ation Notes					
5) Benthic Macroinvertebrates		Absent	_	Weak		Moderate		Strong		Score
A) Benthic Macroinvertebrates		0		0.5		1		1.5		0
3) Bivalves		0		1		2		3		0
	Present = 3		Absent = 0			Tat	- Donahio N		hante Deinter	0
С)ЕРТ Таха							ai Benthic IV	lacroinverte	brate Points:	0
C)EPT Taxa										
C)EPT Taxa	1	Absent		Weak		Moderate		Strong		Score
		Absent 0		Weak 0.5		Moderate		Strong 1.5		Score 0
S) Vertebrates										Score 0 0



PERENNIAL FLOW DETERMINATION

(Adapted from Fairfax County, Virginia's Perennial Stream Field Identification Protocol)

General Information

161 Data Ce	nter		Date:	6/0/2020	
-					
	nmentar inc.				
5]		County:		
Summary					
Length:	203		IS THIS F	REACH PERENNIAL?	No
dth:	1'		Drainage	area to the reach:	0.04 sq miles (25.6 acres)
pth:	0.2"				
h: Riffles	0"				
h: Pools	0.5"				
	Flag C2				
r Data					
	NOKESVILLE 4.0 S, VA US		Palmer Dr	rought Index Value:	Mid (-1.99 to +1.99)
:	6/6/2020				
	0.23"				
	Repre	sentative Photogr	aphs		
	Lower Poto TNT Environ 5 Summary Length: dth: pth: h: Riffles h: Riffles h: Pools r Data	Summary Length: 203 dth: 1' pth: 0.2" n: Riffles 0" n: Pools 0.5" Flag C2 Flag C2 r Data	Lower Potomac- Quantico Creek (HUC 02070011) TNT Environmental Inc. 5 Summary Length: 203 dth: 1' pth: 0.2" n: Riffles 0" n: Pools 0.5" Flag C2 r r Data NOKESVILLE 4.0 S, VA US	Lower Potomac- Quantico Creek (HUC 02070011) Time: TNT Environmental Inc. State: County: 5 Summary IS THIS I Length: 203 dth: 1' pth: 0.2" n: Riffles 0" flag C2 Flag C2 r Data NOKESVILLE 4.0 S, VA US	Lower Potomac- Quantico Creek (HUC 02070011) Time: 3:00 PM TNT Environmental Inc. State: VA County: Prince William 5 Summary Length: 203 dth: 1' pth: 0.2" n: Riffles 0" m: Pools 0.5" Flag C2 Flag C2 r Data NOKESVILLE 4.0 S, VA US 0.23" Palmer Drought Index Value:

Upstream View of Channel

Downstream View of Channel

	Fi	eld Indicators			
1) Streamflow and Hydrology	Absent	Weak	Moderate	Strong	Score
A) Presence or absence of flowing water and >48 hrs since last rainfall	0	1	2	3	0
B) Presence of high groundwater table or seeps and springs	0	1	2	3	1
C) Leaflitter in streambed	1.5	1	0.5	0	0
D) Drift lines	0	0.5	1	1.5	0.5
E) Sediment on debris or plants	0	0.5	1	1.5	0.5
			Total Stre	amflow and Hydrology P	oints: 2

Streamflow and Hydrology Notes

Some occasional ponding, but no active flow

ENVIRONMENTAL		Project/Site Field Inves Date: Time:		161 Data C TNT Enviro 6/9/2020 3:00 PM	enter onmental Inc.		-	DATA POINT:		Page 2 of 5
2) Geomorphology		Absent		Weak		Moderate		Strong		Score
A) Riffle-Pool Sequence		0	0.5	1		2		3		0.5
B) Substrate Sorting (USDA Texture in Streambed)		0		1		2		3		0
C) Natural Levees		0		1		2		3		0
D) Sinuosity		0	0.5	1		2		3		0.5
E) Active or Relic Floodplain		0		1		2		3		0
F) Braided Channel		0		1		2		3		0
G) Recent Alluvial Deposits		0		1		2		3		0
H) Bankfull Bench Present		0		1		2		3		0
I) Continuous Bed and Bank		0	0.5	1		2		3		0.5
J) 2nd Order or Greater Channel Present	Yes = 3		No = 0							0
,							Total	Geomorpho	ology Points:	1.5
								•		
 3) Streambed Soils A) Redoximorphic Features present in sides of 										
channel	Present = 0		Absent = 1.5	5						1.5
B) Chroma	Gleyed = 3		1 =2		2 = 1		>2 = 0			0
							Total Streambed Soils Points:		Soils Points:	1.5
4) Vegetation		Absent	_	Weak		Moderate		Strong		Score
A) Rooted AQUATIC Plants in Streambed		0		1		2		3		0
B) Presence of Periphyton/Green algae		0		1		2		3		0
C) Iron Oxidizing Bacteria/Fungus		0		0.5		1		1.5	> FAC or	0
D) Wetland Plants in Streambed (Skip if no plants in streambed)	SAV = 3		OBL = 1.5		FACW = 1		FAC = 0.5		> FAC or None = 0	0
								Total Veget	ation Points:	0
		Geomorp	hology, Soils	s and Veget	ation Notes		-			
i) Benthic Macroinvertebrates		Absent	_	Weak		Moderate		Strong		Score
A) Benthic Macroinvertebrates		0		0.5		1		1.5		0
B) Bivalves		0		1		2		3		0
C)EPT Taxa	Present = 3		Absent = 0							0
						Tota	al Benthic N	lacroinverte	brate Points:	0
i) Vertebrates		Absent		Weak		Moderate		Strong		Score
A) Fish		0		0.5		1		1.5		0
3) Amphibians		0		0.5		1		1.5		0
									brate Points:	0
		В	enthics/Amp	hibians Fo	und					

5

APPENDIX V

PHOTOGRAPHS



Photograph 1: View showing forested wetlands at data point 1.



Photograph 2: View showing forested uplands at data point 2.



Photograph 3: View to showing forested uplands at data point 3.



Photograph 4: View to the east showing emergent wetlands at data point 4.



Photograph 5: View to the northeast showing forested wetlands at data point 5.



Photograph 6: View to the east showing forested uplands at data point 6.



Photograph 7: View to the east showing uplands at data point 7.



Photograph 8: View showing forested uplands at data point 8.



Photograph 9: View showing forested wetlands at data point 9.



Photograph 10: View showing forested uplands at data point 10.



Photograph 11: View to the south showing forested uplands at data point 11.



Photograph 12: View to the south showing forested wetlands at data point 12.



Photograph 13: View to the west showing an upland swale at data point 13.



Photograph 14: View to the south showing forested uplands at data point 14.



Photograph 15: View showing forested uplands at data point 15.



Photograph 16: View showing forested wetlands at data point 16.



Photograph 17: View showing forested uplands at data point 17.



Photograph 18: View showing forested wetlands at data point 18.



Photograph 19: View showing a forested upland swale at data point 19.



Photograph 20: View showing forested wetlands at data point 20.



Photograph 21: View showing forested uplands at data point 21.



Photograph 22: View showing forested uplands at data point 22.



Photograph 23: View showing forested upland swale at data point 23.



Photograph 24: View showing forested uplands at data point 24.



Photograph 25: View showing forested uplands at data point 25.



Photograph 26: View showing forested uplands at data point A.



Photograph 27: View to the southeast showing forested wetlands at data point B.



Photograph 28: View showing forested wetlands at data point C.



Photograph 29: View showing forested uplands at data point D.



Photograph 30: View showing forested wetlands at data point E.



Photograph 31: View showing forested uplands at data point F.



Photograph 32: View showing forested wetlands at data point G.



Photograph 33: View showing forested uplands at data point H.



Photograph 34: View showing forested uplands at data point I.



Photograph 35: View to the north showing uplands within transmission easement at data point J.



Photograph 36: View to the south showing forested uplands within floodplain at data point K.



Photograph 37: View to the north showing forested uplands at data point L.



Photograph 38: View showing forested uplands at data point M.



Photograph 39: View to the north showing forested uplands at data point N.



Photograph 40: View to the south showing forested wetlands at data point O.



Photograph 41: View showing forested uplands at data point JJ1.



Photograph 42: View to the south showing an ephemeral drainage at data point JJ2.



Photograph 43: View to the north showing forested uplands at data point KK1.

APPENDIX VI

PRESERVATION AREA SITE ASSESSMENT MAP

