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ACRONYMS AND ABBREVIATIONS

1987 Manual Corps of Engineers Wetland Delineation Manual

CVOW Coastal Virginia Offshore Wind
Dominion Energy Dominion Energy Services, Inc.
GIS geographic information systems

HGM hydrogeomorphic
HUC Hydrologic Unit Code

LiDAR Light Detection and Ranging
NHD National Hydrography Dataset

NJD non-jurisdictional

NRCS Natural Resources Conservation Service

NRPW Non-Relatively Permanent Waters

NWI National Wetlands Inventory

NWPR 2020 Navigable Waters Protection Rule

OHWM ordinary high-water mark
PEM palustrine emergent
PFO palustrine forested

Project Coastal Virginia Offshore Wind Commercial Project

PSS palustrine scrub-shrub

PUB palustrine unconsolidated bottom

Regional Supplement Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic

and Gulf Coastal Plain Region, Version 2.0

RPW Relatively Permanent Waters

Study Area Area within the limits of disturbance of the onshore components of the Coastal Virginia

Offshore Wind Commercial Project that were accessible and surveyed for aquatic

resources

Tetra Tech, Inc.

TNW Traditionally Navigable Water

UPL Upland

USACE U.S. Army Corps of Engineers
USFWS U.S. Fish and Wildlife Service

USGS U.S. Geological Survey

VDEQ Virginia Department of Environmental Quality

U.1 INTRODUCTION

The Virginia Electric and Power Company, doing busines as Dominion Energy Services, Inc. (Dominion Energy), is proposing to construct, own, and operate the Coastal Virginia Offshore Wind (CVOW) Commercial Project (Project). The Project will be located in the Commercial Lease of Submerged Lands for Renewable Energy Development on the Outer Continental Shelf Offshore Virginia (Lease No. OCS-A-0483). The Offshore Project Components, including the Offshore Substations, Inter-Array Cables, and Wind Turbine Generators, will be located in federal waters in the Lease Area, while the Offshore Export Cable Route Corridor will traverse both federal and state territorial waters of Virginia.

The Onshore Project Components, including the Cable Landing Location, Onshore Export Cables, Switching Station, Interconnection Cables, and Onshore Substation, will be located in the area of Hampton Roads, Virginia (Figure U-1). The Cable Landing Location in Virginia Beach is proposed for development in an existing developed parcel within the State Military Reservation. The Onshore Export Cables that will transport the power from the Cable Landing Location to a Common Location north of Harpers Road where the Interconnection Cable Route begins. The Interconnection Cables will transmit and transport the power from Harpers Road to the Onshore Substation, which would be the final Point of Interconnection into the existing electrical grid. The Switching Station, which is proposed to be constructed either north of Harpers Road (preferred) or north of Princess Anne Road, in Virginia Beach, Virginia, will collect power and facilitate transition from underground transmission line to overhead transmission line for delivery to the Onshore Substation at the existing Dominion Energy Fentress Substation, located in Chesapeake, Virginia. General routing is referenced on the U.S. Geological Survey (USGS) Project Location Map (Figure U-1). The Project is located in the following watershed areas: Rudee Inlet-Atlantic Ocean (Hydrologic Unit Code [HUC] 020403040501), Asheville Bridge Creek (HUC 030102051301), West Neck Creek (HUC 030102051203), 030102051202—Upper North Landing River, 030102051201—Chesapeake Canal, and 030102051204—Pocaty Creek (USGS 2020).

Tetra Tech, Inc. (Tetra Tech), on behalf of Dominion Energy, prepared this Wetland Delineation Report summarizing the results of field surveys to identify and delineate wetlands and surface water features within accessible portions of the preferred route within the Onshore Project Area (or Study Area). The width/size of the Study Area was determined based on the design limits of disturbance, incorporating the greatest potential extent of impact within the Onshore Project Components (Cable Landing Location, Onshore Export Cable Route, Switching Station, Interconnection Cable Route and Substaiton.). The results described herein do not cover the entire Study Area because not all parcels could be surveyed due to access constraints. However, this report will be amended as access to more parcels and properties is obtained and additional areas are delineated.

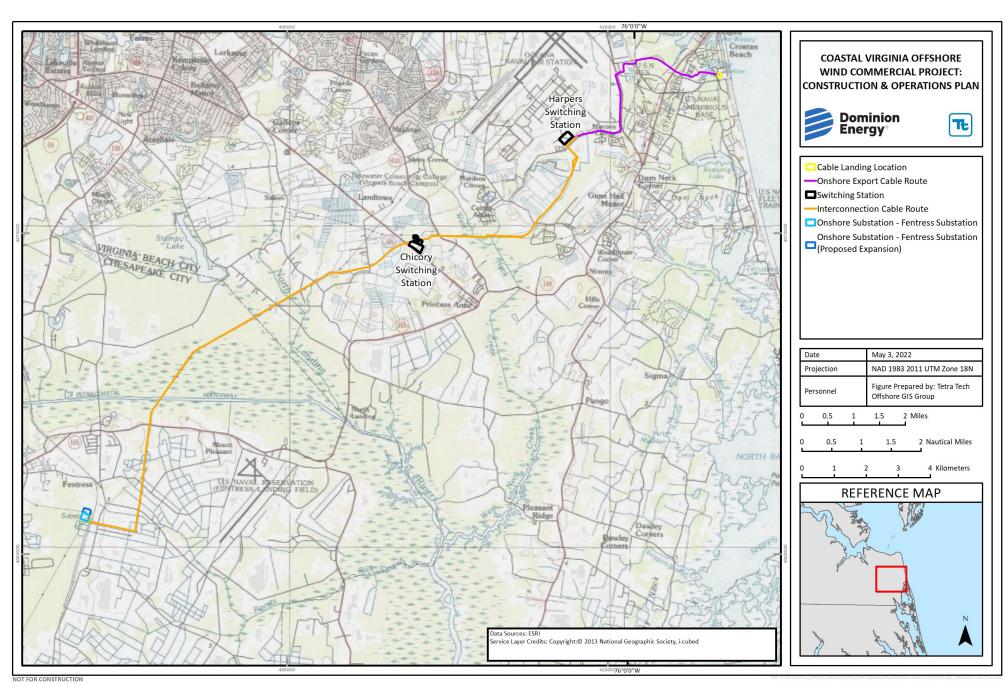


Figure U-1. USGS Project Location Map

U.2 METHODS

The primary objective of the aquatic resource field survey was to identify and map potentially jurisdictional streams and wetlands for Project permitting. However, for planning purposes, the survey also included the identification and mapping of likely non-jurisdictional (NJD) aquatic resources such as stormwater management features (e.g., stormwater retention ponds, ditches excavated wholly in, and draining only uplands that do not carry a relatively permanent flow), drainage features, groundwater wells with surface access, water-filled depressions created incidental to construction activity, and wet areas that are not tributaries or open waters that do not meet the regulatory definition of "wetlands" per the Navigable Waters Protection Rule (NWPR; USACE and EPA 2020). As of August 30, 2021, the NWPR has been vacated and remanded per guidance from the U.S. Environmental Protection Agency and U.S. Army Corps of Engineers (USACE; EPA 2021). As such, while these features were mapped under general guidance from the NWPR (as well as guidance regarding State Water Determinations by the Virginia Department of Environmental Quality [VDEQ]), modifications to mapping methodology will be made as needed in accordance with the most up-to-date regulatory guidance provided by the U.S. Army Corps of Engineers and U.S. Environmental Protection Agency.

U.1.1 Background Research

Prior to the start of field surveys, an initial desktop analysis of the Study Area was conducted through review of available geographic information systems (GIS) resources. Information reviewed included the following:

- USGS topographic mapping (Figure U-1; National Geographic Society, i-cubed 2013),
- Natural Resources Conservation Service (NRCS) Web Soil Survey (Figure U-2; NRCS 2019) mapping and data,
- U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) mapping (Figure U-3; USFWS 2021),
- USGS National Hydrography Dataset (NHD) (Figure U-4; USGS 2020), and
- Virginia Geographic Information Network Light Detection and Ranging (LiDAR; Aerial mapping support; VGIN 2016).

In addition, existing aquatic resource information for areas overlapping the Study Area was reviewed. These include wetland delineation reports and existing jurisdictional determinations that were developed for activities that overlap the Study Area but are unrelated to the Project. This supplemental wetland information is provided in Attachment U-1.

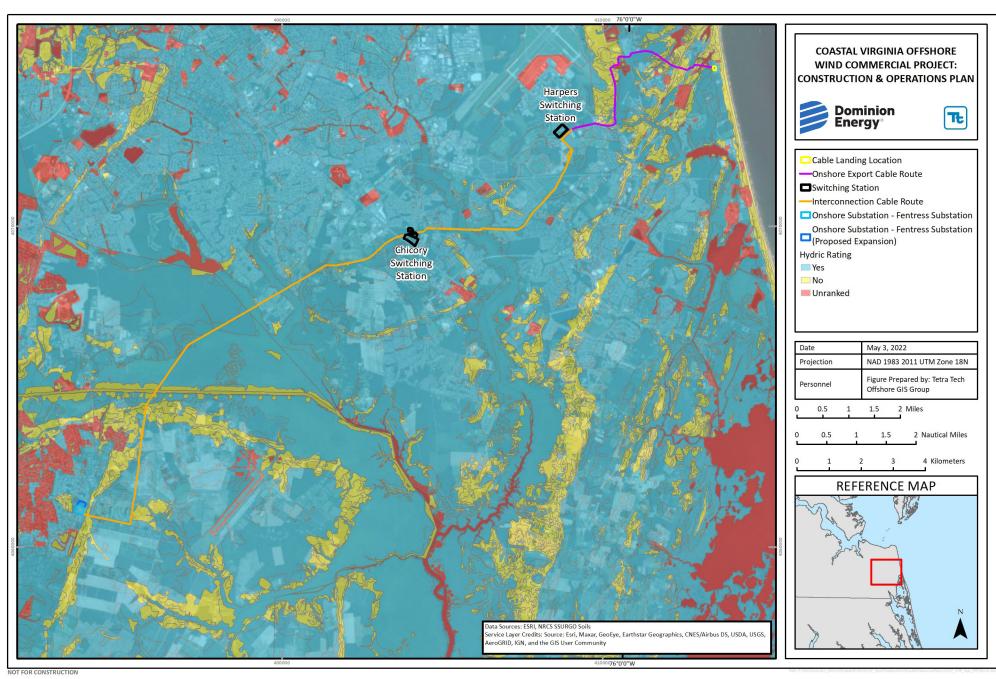


Figure U-2. NRCS Soils Map

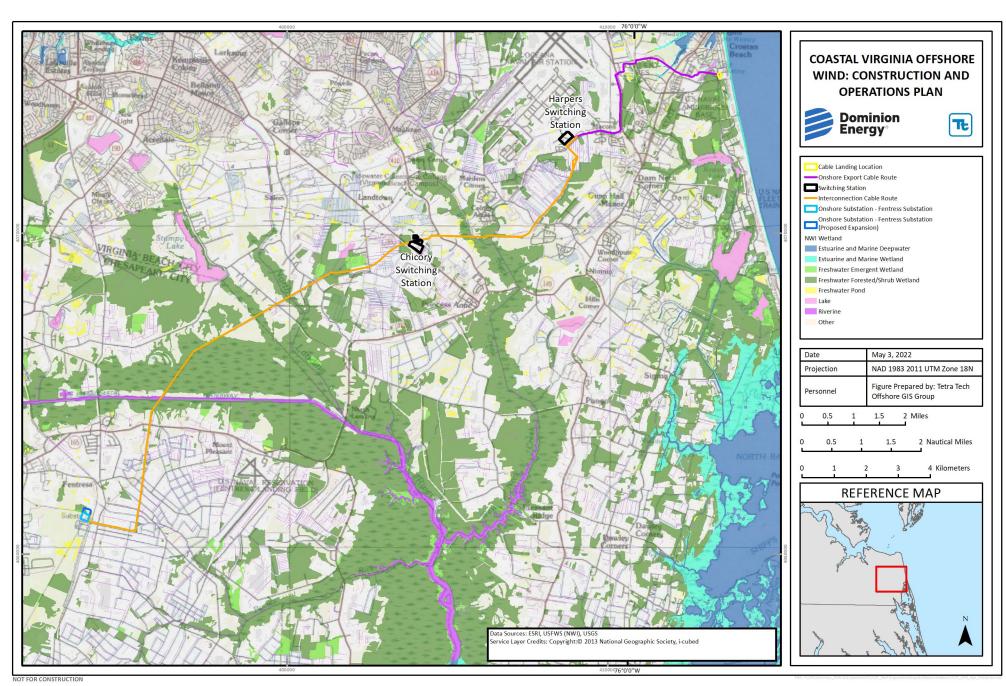


Figure U-3. NWI Wetlands Map

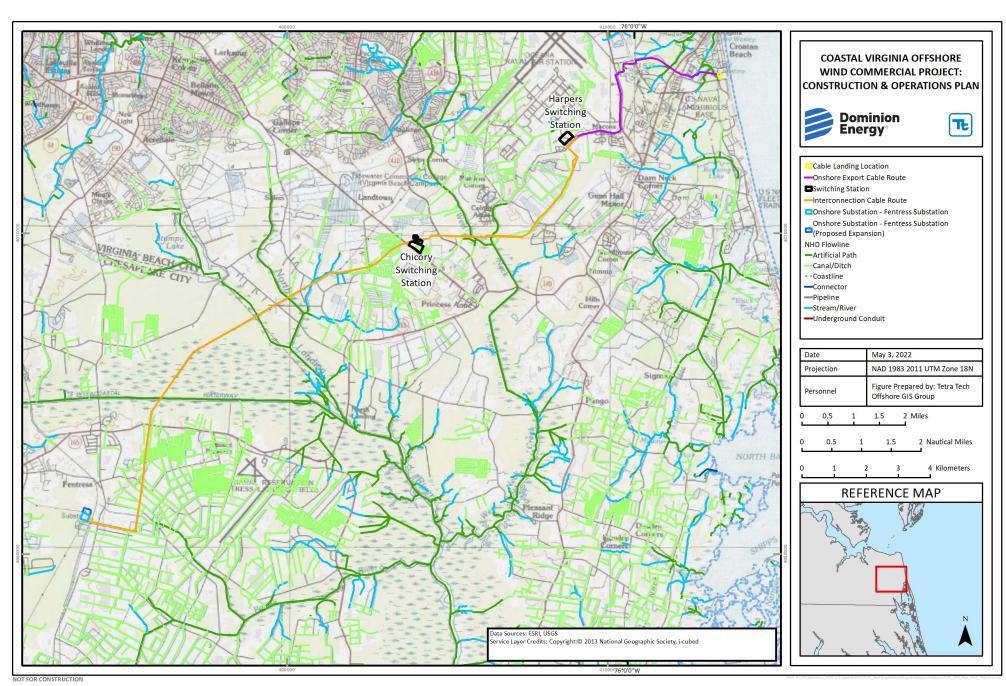


Figure U-4. NHD Streams Map

U.1.2 Stream Identification

Potentially jurisdictional streams and drainage ditches were identified in the field by the presence of a continuous channel that exhibits evidence of frequent or reoccurring water flow such as a defined bed, bank, and an ordinary high-water mark (OHWM; USACE and EPA 2007). Identified stream reaches were mapped along their entire course within the Study Area by use of a global positioning system receiver with submeter accuracy or better. In addition, the USGS NHD stream name (USGS 2020) for each identified stream was recorded; mapped streams lacking an NHD identification were named "Unnamed Tributary" of the first named receiving waterbody.

Physical and biological characteristics of the identified streams were evaluated to determine Flow Regime (82 Federal Register 1860, January 6, 2017), USACE waters type (USACE and EPA 2007), and Cowardin classifications (Cowardin et al. 1979). Physical characteristics evaluated include, but are not limited to, channel morphology, substrate size and type, and base flow conditions. Biological characteristics evaluated include, but are not limited to, the presence of fish, aquatic macroinvertebrates, and vegetation rooted within the OHWM. Water types defined by USACE (USACE and EPA 2007) include:

- Traditional Navigable Water (TNW) All "navigable waters of the U.S.," defined in 33 Code of Federal Regulations Part 329 and by numerous decisions of the federal courts, plus all other waters that are navigable-in-fact.
- Relatively Permanent Waters (RPW) Streams that flow directly or indirectly into TNWs and where the flow of water is continuous year-round or at least seasonally.
- *Non-Relatively Permanent Waters (NRPW)* Streams that flow directly or indirectly into TNWs where the flow of water is not continuous at least seasonally.

Flow Regimes (82 Federal Register 1860, January 6, 2017) include:

- Perennial Streams that typically have flow year-round. Most of the hydrology for perennial streams is derived from smaller upstream waters and/or groundwater sources with precipitation as a supplemental hydrologic contributor. Perennial streams are classified as RPW or TNW USACE waters types (USACE and EPA 2007).
- *Intermittent* Streams with seasonal flow, typically during the wet season (winter through spring). At least a portion of the hydrology for intermittent streams is derived from groundwater sources with precipitation as a supplemental hydrologic contributor. Intermittent streams are classified as an RPW USACE waters type (USACE and EPA 2007).
- Ephemeral Rain-dependent streams flowing only after precipitation events. Precipitation-driven
 run-off from the localized surrounding landscape is the primary source of hydrology. Ephemeral
 streams are different from non-jurisdictional ditches and drainages due to the presence of an
 observable OHWM. Ephemeral streams are classified as an NRPW USACE waters type (USACE
 and EPA 2007).

U.1.3 Wetland Delineation

Wetlands were delineated based on the identification of hydrophytic vegetation, hydric soils, and wetland hydrology indicators, in accordance with the procedures specified in the USACE Corps of Engineers

Wetland Delineation Manual (1987 Manual; Environmental Laboratory 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (Regional Supplement; USACE 2010). Wetland boundaries were mapped in the field using a global positioning system receiver, and supplemented when necessary by aerial interpretation where access was not possible (e.g., Gum Swamp). Wetlands that continued beyond the Study Area boundary were recorded as open boundary systems while those that do not were recorded as closed systems. Data collected on vegetation, soils, and hydrology for identified wetlands and their associated upland points were recorded on USACE Wetland Determination Data Forms, and photographs of each identified wetland were collected.

According to the 1987 Manual, an area is defined as a wetland if, under normal circumstances, it meets all three of the following criteria: predominance of hydrophytic vegetation (plants adapted for life in saturated soil conditions); hydric soils (soils formed under water, or in saturated conditions); and wetland hydrology (current or recent inundation or saturated soils at some time during the growing season).

U.1.1.1 Hydrophytic Vegetation

Hydrophytic vegetation was identified in the field based on protocol outlined in the Regional Supplement (USACE 2010). Plant species representative of the habitats within the Study Area were identified to the species' taxonomic level, and the indicator status for each plant species was identified using *The National Wetland Plant List: 2018 Wetland Ratings* (USACE 2018). Wetland indicator statuses are described below (Reed 1988):

- *Obligate* almost always occurs in wetlands; estimated probability of occurrence in a wetland is greater than 99 percent.
- Facultative Wetland usually occurs in wetlands but may occur in non-wetlands; estimated probability of occurrence in a wetland is 67 to 99 percent.
- Facultative equally likely to occur in wetlands and non-wetlands; estimated probability of occurrence in a wetland is 34 to 66 percent.
- Facultative Upland usually occurs in non-wetlands but may occur in wetlands; estimated probability of occurrence in a wetland is 1 to 33 percent.
- *Upland (UPL)* rarely occurs in wetlands; estimated probability of occurrence in a wetland is less than 1 percent.

Hydrophytic vegetation includes species with an indicator status of Obligate, Facultative Wetland, or Facultative. Hydrophytic vegetation decisions were based on the plant community typically present during the wet portion of the growing season during a normal rainfall year. In areas where human practices or natural events have influenced vegetation, procedures for difficult or problematic situations outlined in the Regional Supplement (USACE 2012) are followed.

Wetland types are based on vegetation strata composition and are classified in accordance with the following from USFWS's *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al. 1979):

• Palustrine emergent (PEM) – contain emergent, herbaceous (non-woody) plants which are the tallest life form with at least 30 percent aerial coverage.

- Palustrine scrub-shrub (PSS) contain woody plants less than 6 meters (m; 20 feet [ft]) in height, which are the tallest life form with at least 30 percent aerial coverage, or, when trees or shrubs alone cover less than 30 percent of an area, but in combination, cover 30 percent or more. Trees are defined as woody plants at least 6 m (20 ft) in height, and shrubs are defined as woody plants less than 6 m (20 ft) in height.
- Palustrine forested (PFO) contain woody plants at least 6 m (20 ft) in height, which are the tallest life form with at least 30 percent aerial coverage.
- Palustrine unconsolidated bottom (PUB) contain all wetland and deepwater habitats with at least 25 percent cover of particles smaller than stones, and a vegetative cover of less than 30 percent.

U.1.1.2 Hydric Soils

Hydric soils were identified in the field based on protocol outlined in the 1987 Manual (Environmental Laboratory 1987), Regional Supplement (USACE 2012), and *Field Indicators of Hydric Soils in the United States* (USDA 2010). Based on prior experience, the presence of field-identified hydric soils does not always align with NRCS-mapped hydric soils units. The NRCS soil units represent a large geographic area and are based on broad geologic and historic conditions. Generally, the methods described in the *Field Indicators of Hydric Soils in the United States* (USDA 2010) are applied to determine hydric soil conditions on a localized scale. A review of the NRCS-mapped hydric soils units was completed during the desktop analysis to identify areas with the potential to contain wetlands (see Figure U-2); however, the field-delineated wetland boundaries were mapped based on the presence of field-identified hydric soils. In cases where soils are found to be disturbed or problematic, determinations relied on the NRCS-mapped hydric soil units (USACE 2012).

U.1.1.3 Wetland Hydrology

Wetland hydrology indicators were identified in the field based on protocol outlined in the 1987 Manual (Environmental Laboratory 1987) and Regional Supplement (USACE 2012). Hydrogeomorphic (HGM) and water type classifications were assigned to wetlands based on their hydrologic source and connectivity to streams. HGM classifications are based on *A Hydrogeomorphic Classification for Wetlands* (Brinson 1993); a summary of HGM classifications commonly used in the Project region is provided below:

- Riverine Wetlands occur in floodplains and riparian corridors in association with stream channels.
- Depressional Wetlands occur in topographic depressions. Dominant water sources are precipitation and ground water discharge, and both interflow and overland flow from adjacent uplands.
- Slope Wetlands normally are found where there is a discharge of ground water to the land surface. They normally occur on sloping land; elevation gradients may range from steep hillsides to slight slopes.

Wetland USACE water types (USACE and EPA 2007) include:

- TNWW wetlands adjacent to TNWs,
- RPWWD wetlands directly abutting RPWs that flow directly or indirectly into TNWs,

- RPWWN wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs,
- NRPWW wetlands adjacent to NRPWs that flow directly or indirectly into TNWs, and
- *Isolate* isolated (interstate or intrastate) waters, including isolated wetlands.

Visible wetland hydrology indicators, inundation/saturation visible on aerial imagery, and estimates of the effects of ditches and subsurface drainage systems were all considered when making decisions regarding the presence/absence of wetland hydrology in areas where human practices or natural events may have altered conditions.

U.3 RESULTS

Tetra Tech performed aquatic resources surveys for the onshore components of the Project in 2021 and 2022, completing delineations in 60 percent of the Study Area. The field surveys identified 15 stream reaches, 35 wetlands, 3 potentially jurisdictional ditches, and 67 non-jurisdictional ditches within the surveyed portion of the Study Area, referenced in the Aquatic Resource Location Mapbook (Attachment U-2). An additional two stream reaches (JC_S_001 and JC_S_003) were delineated via aerial imagery and LiDAR, as they were physically inaccessible in the field. The number of identified features will increase as more areas of the limits of disturbance become available for physical survey.

This Wetland Delineation Report represents our best professional judgment and is based on site conditions at the time of the field survey. However, final authority over determinations made during these surveys rests with the VDEQ and USACE.

U.1.4 Stream Identification

Fifteen stream reaches and three potentially jurisdictional ditches (EF_D_002, EF_D_004, and EF_D_013) exhibiting intermittent flow regime were identified in the Study Area based on review of available GIS mapping data, evidence collected during field surveys, and best professional judgment. Attachment U-3, Table U-3-1 provides information for each identified stream reach or jurisdictional ditch, including field identification name, stream location, flow regime classification, water type classification, Cowardin classification, flow direction, and top of bank width. Stream data forms are provided in Attachment U-4 for each stream reach or jurisdictional ditch that was physically surveyed; photographs of each identified stream reach or jurisdictional ditch are included immediately following each feature's respective stream data form. In circumstances where parcels were inaccessible (i.e., inundated areas presenting a health and safety hazard for staff completing physical surveys) but had been approved for access, features were mapped aerially from LiDAR and imagery. These features are characterized by available desktop data (see Attachment U-3, Table U-3-1) but do not have corresponding data forms or photographs. These features include JC S 001 and JC S 003.

U.1.5 Wetland Delineation

Thirty-five wetlands were delineated within the Study Area (60 percent of Study Area) based on review of available GIS mapping data, evidence collected during field surveys, and best professional judgment. A review of the USFWS NWI mapping indicates that 101 NWI wetlands are mapped across the entire Study

Area (Figure U-3). Generally, NWI features that were mapped within the Study Area during desktop review were confirmed during field surveys. However, it should be noted that comparison between field surveyed wetlands and NWI shows variation by extent, size, and Cowardin classification.

Attachment U-3, Table U-3-2 provides a summary of each wetland identified, including wetland identification name, location, Cowardin classification, HGM classification, waters type classification, the identity of any associated (i.e., abutting or adjacent) waterbodies, wetland size within the Study Area (in acres and square feet), and whether the wetland boundary is open or closed (see Section U.2.1). The wetland size provided in Attachment U-3, Table U-3-2 represents the size of the delineated wetland boundary shown on Attachment U-2. Open boundary wetlands continue beyond the mapped boundary; therefore, the total wetland size (including outside the Study Area) may be larger than the size provided in Attachment U-3, Table U-3-2.

The USACE Wetland Determination Data Forms detailing the existing vegetation, soil characteristics, and hydrology for each physically surveyed wetland and its associated upland point are provided in Attachment U-5. Photographs and photograph location maps of each identified wetland are included immediately following each feature's respective USACE Wetland Determination Data Form. In circumstances where parcels were inaccessible (i.e., inundated areas presenting a health and safety hazard for staff completing physical surveys) but had been approved for access, features were mapped aerially from LiDAR and imagery. These features are characterized by available desktop data (see Attachment U-3, Table U-3-2) but do not have corresponding data forms or photographs.

U.1.6 Non-Jurisdictional Aquatic Feature Identification

Sixty-seven NJD aquatic features were identified in the Study Area based on review of applicable regulations, available GIS mapping data, evidence collected during field surveys, and best professional judgment. The NJD aquatic features were predominantly categorized as agricultural ditches constructed within upland fields and roadside drainage features utilized for stormwater management. All of these ditches exhibited ephemeral flow, or were dry at the time of survey. The majority of these ditches were observed as lacking a contiguous and well-defined OHWM or a contiguous and well-defined bed and bank, or they contained upland vegetation within the wetted thalweg.

The Aquatic Resource Location Mapbook (Attachment U-2) illustrates the NJD aquatic feature locations in relation to the Study Area. Attachment U-3, Table U-3-3 summarizes NJD aquatic feature information.

U.4 CONCLUSION

During the onshore field aquatic resources survey of the Project, 15 stream reaches, 35 wetlands, 3 potentially jurisdictional ditches, and 67 NJD aquatic features were identified and mapped within the Study Area. Summaries of identified stream reaches and wetland data are provided in Attachment U-3, Tables U-3-1 and U-3-2, and locations of all streams, wetlands, and NJD aquatic features are shown on the Aquatic Resource Location Map (Attachment U-2).

This Wetland Delineation Report represents our best professional judgment and is based on site conditions at the time of the field survey. However, final authority over the determinations made during this survey rests with the VDEQ and the USACE.

U.5 REFERENCES

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VGIN (Virginia Geographic Information Network). 2016. LiDAR Point Cloud data in Virginia. Available at: https://vgin.maps.arcgis.com/home/item.html?id=1e964be36b454a12a69a3ad0bc1473ce. Accessed October 6, 2021.

ATTACHMENT U-1: SUPPLEMENTAL DELINEATIONS AND CONCURRENT JURISDICTIONAL DETERMINATIONS

October 2021 Page U-1-1



Stantec Consulting Services Inc.

5209 Center Street, Williamsburg, Virginia 23188-2680

March 5, 2018; Revised June 15, 2018

File: 203400975

Attention: Regulator of the Day
U.S. Army Corps of Engineers
803 Front Street
Norfalk Virginia 22510

Norfolk, Virginia 23510

Via Email: CENAO.REG_ROD@usace.army.mil

Dear Regulator of the Day:

Reference: Request for Preliminary Jurisdictional Determination

2017 SMR Camp Pendleton Wetland Delineation, Virginia Beach, Virginia

Latitude: 36.816431° Longitude: -75.97849°

Applicant: Mr. Ken Oristaglio

Commonwealth of Virginia Department of Military Affairs

Building 316 Fort Pickett

Blackstone, Virginia 23824-6316

Stantec Consulting Services, Inc. (Stantec) has been retained by the Commonwealth of Virginia Department of Military Affairs (VDMA), to conduct a detailed investigation of waters of the U.S., including wetlands (WOUS), on the above-referenced project. The approximate 332.01-acre study area is located within the Lake Christine, Lake Rudee, and Atlantic Ocean drainage basins in Virginia Beach, Virginia (Figure 1). The site is situated south of Rudee Inlet, north of South Birdneck Road, west of General Booth Boulevard, and can be accessed from General Booth Boulevard (via the Virginia Aquarium and Marine Science Center overflow parking lot) (Figure 2). A copy of the Pre-Application and/or Jurisdictional Waters Determination Request Form is provided in Appendix A.

It should be noted that Stantec previously conducted detailed delineations of WOUS within portions of the SMR Camp Pendleton. Specifically, Stantec delineated an area immediately around and including Lake Christine (Lake Christine Water Quality Study and Dredging Plan). The Corps confirmed the delineation on September 23, 2013 (NAO-2013-1616). Additional study area was added and delineated in association with the Lake Christine delineation and was confirmed on March 12, 2015 under the same Corps project number.

Off-site Evaluation

Prior to conducting fieldwork, Stantec consulted the U.S. Geological Survey (USGS) 7.5-minute Topographical Quadrangle Map for Virginia Beach, Virginia (1986 revision), the National Wetlands Inventory (NWI), administered by the U.S. Fish and Wildlife Service (USFWS), and the SSURGO Soil Survey, administered by the Natural Resources Conservation Service (NRCS). The USGS quad map depicts a partially forested site on nearly level terrain. Lake Christine bisects the central portion of



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Reference: 2017 SMR Camp Pendleton Wetland Delineation

the project area and the Atlantic Ocean is located immediately to the east. Within the project limits, the NWI map (Figure 3) depicts freshwater emergent wetlands, freshwater forest/shrub wetlands, and freshwater lake associated with Lake Christine. The soil survey (Figure 4) indicates that the site is underlain primarily by Acredale silt loam, Augusta loam, Chapanoke silt loam, Duckston fine sand, Tetotum loam, Tomotley loam, Udorthents, loamy, and Urban land. Of these soil types, Acredale silt loam, Duckston fine sand, and Tomotley loam are classified as hydric by the NRCS in Virginia Beach, Virginia.

On-site Evaluation

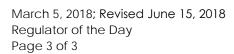
Fieldwork was conducted during August and October 2017 using the Routine Determination Method as outlined in the 1987 Corps of Engineers Wetland Delineation Manual and methods described in the 2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain (Version 2.0). Wetland flags were placed in the field by Stantec and sequentially numbered to provide an on-site record of the delineation. The data sheets (Appendix B) used in this investigation are attached along with the Delineation Map (Figure 5) showing the GPS-located limits of wetlands and other water features, previously confirmed WOUS limits, as well as data point locations.

Site Description

Jurisdictional features identified by Stantec within the project limits may be classified as palustrine forested, scrub shrub, and emergent wetlands; tidal emergent wetlands; perennial and intermittent stream channels; jurisdictional ditches, as well as open water associated with Lake Christine. Wetland vegetation is typified by red maple (Acer rubrum), groundsel tree (Baccharis halimifolia), American hornbeam (Carpinus caroliniana), coastal sweetpepperbush (Clethra alnifolia), wax myrtle (Morella cerifiera), willow oak (Quercus phellos), highbush blueberry (Vaccinium corymbosum), southern lady fern (Athyrium asplenioides), smallspike false nettle (Boehmeria cylindrica), cypress panicgrass (Dichanthelium dichotomum), common rush (Juncus effusus), sensitive fern (Onoclea sensibilis), royal fern (Osmunda regalis), dallisgrass (Paspalum dilatatum), and netted chainfern (Woodwardia areolata). The transition from wetland to upland is generally identified by a shift in the vegetative community and a loss of surficial indicators of hydrology. Table 1 shows the dimensions of the identified jurisdictional resources within the 2017 SMR Camp Pendleton Wetland Delineation study area and do not include the previously confirmed WOUS limits.

Table 1. Wetlands and WOUS Calculations

E2EM (Acres)	PFO (Acres)	PSS (Acres)	PEM (Acres)	Upper Perennnial Stream Channels (R3)	Intermittent Stream Channels (R4)	Jurisdictional Ditches (R4)
				Acres (LF)	Acres (LF)	Acres (LF)
0.40	13.22	0.29	2.05	0.01 (244)	0.02 (272)	0.08 (1,757)



Reference: 2017 SMR Camp Pendleton Wetland Delineation

Table 2 shows the dimensions of wetlands and other waters of the U.S. from the 2017 SMR Camp Pendleton Wetland Delineation combined with the previously confirmed limits of WOUS associated with the Lake Christine Water Quality Study and Dredging Plan.

Table 2. Combined Wetlands and WOUS Calculations

Wetlands (Acres)	Upper Perennial Stream Channels (R3) Acres (LF)	Intermittent Stream Channels (R4) Acres (LF)	Jurisdictional Ditches (R4) Acres (LF)	Open Waters (Acres)
20.46	0.01 (244)	0.02 (272)	0.23 (2,729)	18.42

On behalf of our client, Stantec respectfully requests that the Corps confirm our delineation of the 2017 SMR Camp Pendleton Wetland Delineation and re-confirm the WOUS included in the Lake Christine Water Quality Study and Dredging Plan. We would appreciate the opportunity to meet with you on site to present our fieldwork. Please call to set up a meeting date or to discuss any questions regarding our investigation.

Thank you for your cooperation in this matter.

Regards,

Stantec Consulting Services

Kenrick Presgraves, PWD

Senior Ecologist Phone: (757) 220 -6869 Fax: (757) 229-4507

kenny.presgraves@stantec.com

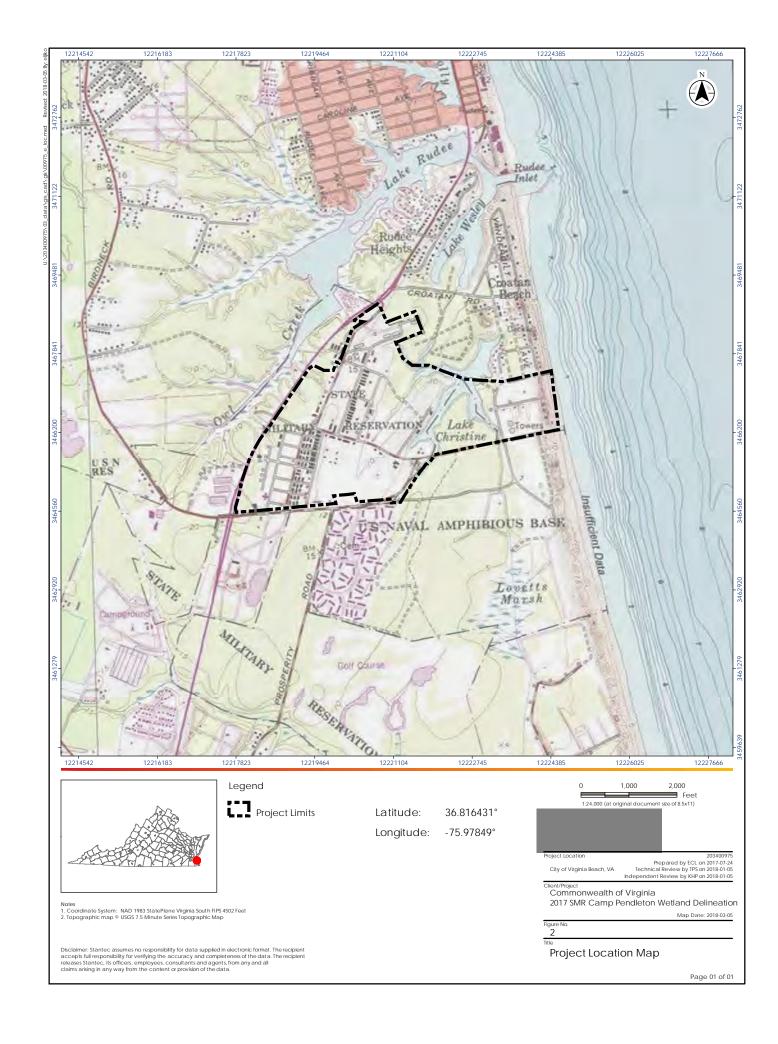
Enclosures: Figures 1, 2, 3, 4, and 5

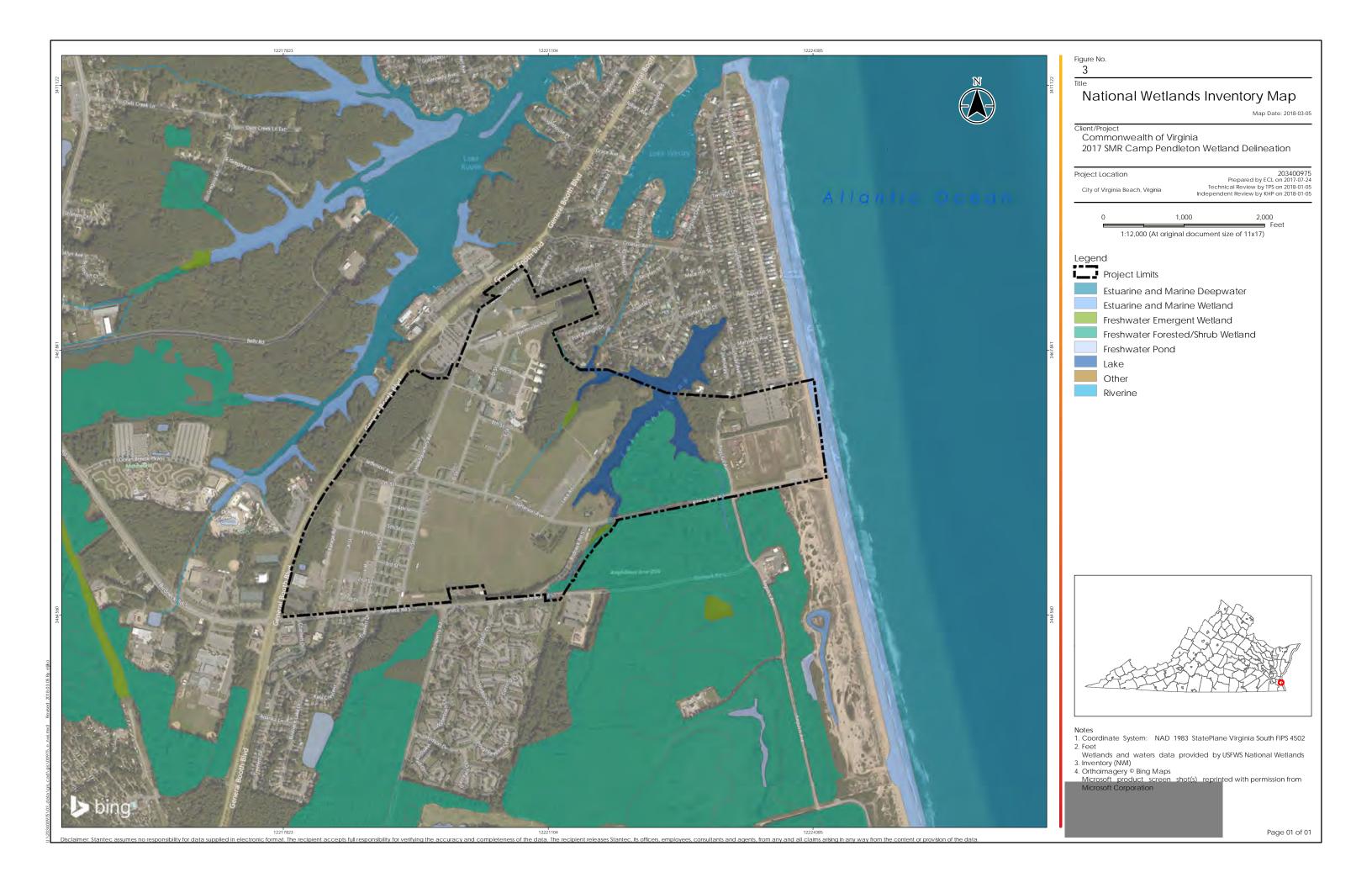
Appendices A and B

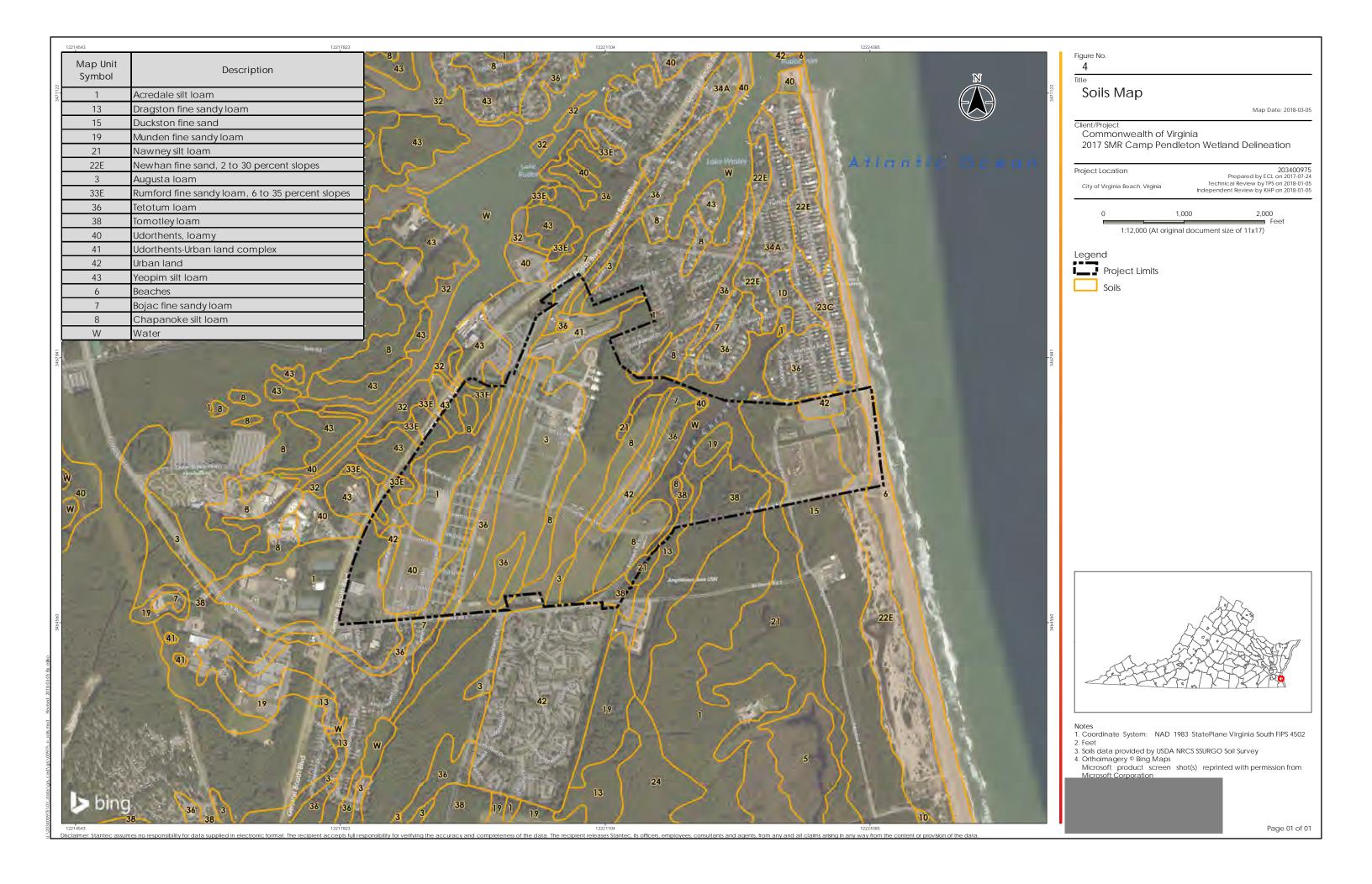
cc. Mr. Ken Oristaglio - Virginia Department of Military Affairs

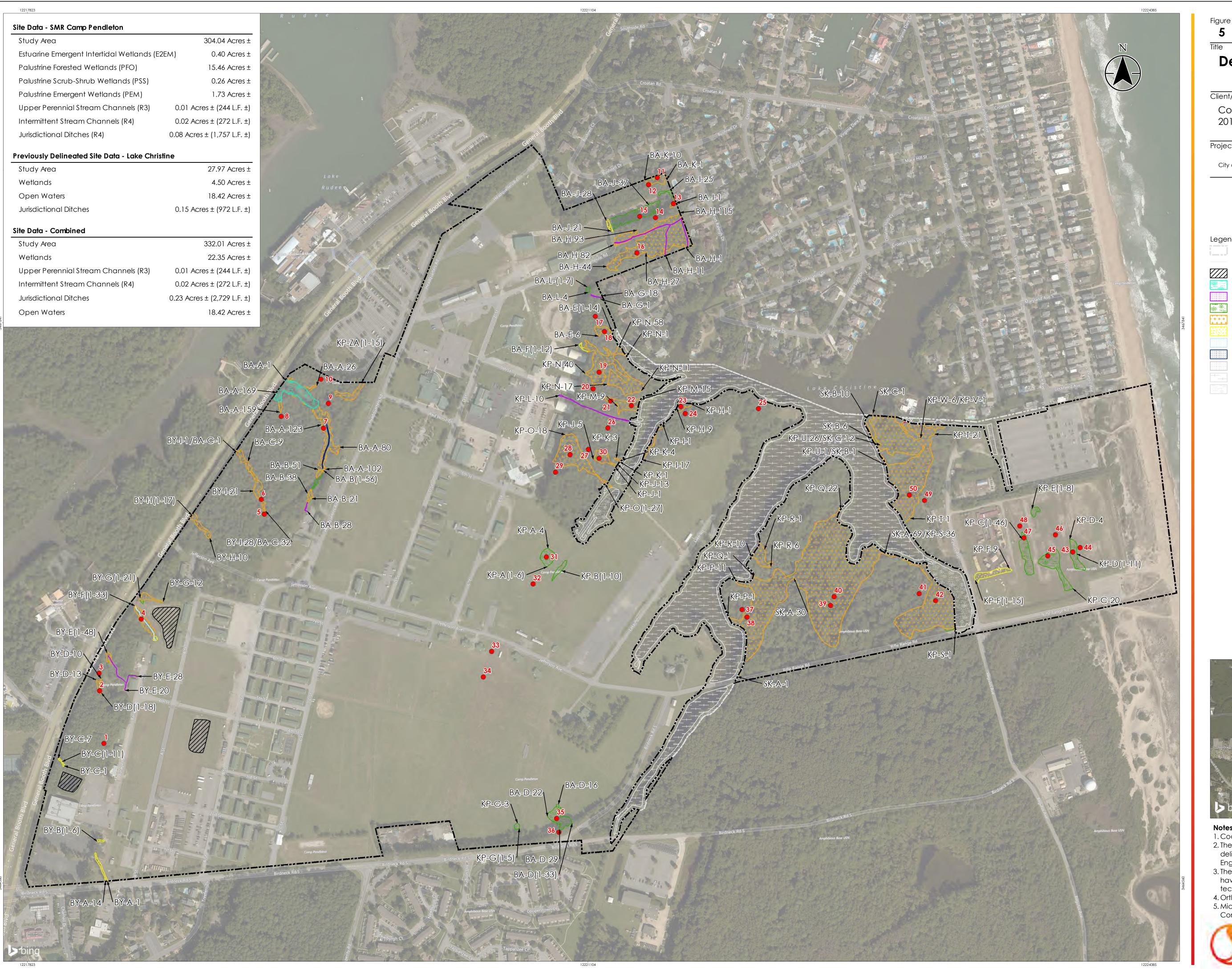
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Disclaimer: Stantec assumes no responsibility for data supplied in electronic format. The recipient accepts full responsibility for verifying the accuracy and completeness of the data. The recipient releases Stantec, its officers, employees, consultants and agents, from any and all claims arising in any way from the content or provision of the data.

Figure No.

Delineation Map

Map Date: 2018-03-05 Revised Date: 2018-06-15

Client/Project

Commonwealth of Virginia 2017 SMR Camp Pendleton Wetland Delineation

Project Location 203400975 Prepared by MGS on 2017-12-11 Technical Review by TPS on 2018-01-05 Independent Review by KHP on 2018-01-05 City of Virginia Beach, VA

> 1,000 1:3,000 (At original document size of 24 x 36)

Previously Delineated Study Area 2-Foot Contour

Approximate Stormwater Facility Approximate Estuarine Emergent Intertidal Wetland Limits (E2EM)

Approximate Jurisdictional Ditch Limits

Approximate Palustrine Emergent Wetland Limits (PEM)

Approximate Palustrine Forested Wetland Limits (PFO)

Approximate Palustrine Scrub-Shrub Wetland Limits (PSS) Approximate Upper Perennial Stream Channel Limits (R3)

Approximate Intermittent Stream Channel Limits (R4)

Previously Delineated Jurisdictional Ditch

Previously Delineated Open Water

Previously Delineated Wetland Limits



- 1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet 2. The limits of waters of the U.S., including wetlands within the previously delineated study area, have been confirmed by the U.S. Army Corps of Engineers, Confirmation #NAO-2013-1616.
- 3. The limits of waters of the U.S., including wetlands, shown on this map have been field located by means of sub-meter capable GPS technology and are for planning purposes only.
- 4. Orthoimagery © Bing Maps 5. Microsoft product screen shot(s) reprinted with permission from Microsoft



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Appendix A

Pre-Application and/or Jurisdictional Waters Request Form



NORFOLK DISTRICT REGULATORY OFFICE PRE-APPLICATION AND/OR JURISDICTIONAL WATERS DETERMINATION REQUEST FORM

This form is used when you want to determine if areas on your property fall under regulatory requirements of the U.S. Army Corps of Engineers (USACE). Please supply the following information and supporting documents described below. This form can be filled out online and/or printed and then mailed, faxed, or emailed to the Norfolk District. Submitting this request authorizes the US Army Corps of Engineers to field inspect the property site, if necessary, to help in the determination process. THIS FORM MUST BE SIGNED BY THE PROPERTY OWNER TO BE CONSIDERED A FORMAL REQUEST.

The printed form and supporting documents should be mailed to:

U.S. Army Corps of Engineers, Norfolk District Regulatory Office 803 Front Street Norfolk, Virginia 23510-1096

Or faxed to (757) 201-7678

Or sent via e-mail to: CENAO.REG ROD@usace.army.mil

Additional information on the Regulatory Program is available on our website at: http://www.nao.usace.army.mil/

Please contact us at 757-201-7652 if you need any assistance with filling out this form.

Location and Information about Property to be subject to a Jurisdictional Determination:

- 1. Date of Request: March 2018
- 2. Project Name: 2017 SMR Camp Pendleton Wetland Delineation
- 3. City or County where property located: Virginia Beach, Virginia
- 4. Address of property and directions (attach a map of the property location and a copy of the property plat): The site is situated south of Rudee Inlet, north of South Birdneck Road, west of General Booth Boulevard, and can be accessed from General Booth Boulevard (via the Virginia Aquarium and Marine Science Center overflow parking lot). Location and vicinity maps are included in the submittal page.
- 5. Coordinates of property (if known): 36.816431°, -75.97849°
- 6. Size of property in acres: 332.01
- 7. Tax Parcel Number / GPIN (if available):
- 8. Name of Nearest Waterway: Lake Christine
- 9. Brief Description of Proposed Activity, Reason for Preapplication Request, and/or Reason for Jurisdictional Waters Determination Request: **Environmental inventory.**

10. Has a wetland delineation/determination been completed by a consultant or the Corps on the property previously? XYES NO UNKNOWN. If yes, please provide the name of the consultant and/or Corps staff and Corps permit number, if available: Mr. Scott Kupiec (Williamsburg Environmental Group) Corps Permit Number: NAO-2013-1616 (Lake Christine) USACE-Norfolk District Staff: Ms. Nicole L. Woodward (2015), Ms. Katy R. Damico (2013) **Property Owner Contact Information:** Property Owner Name: LTC Timothy Pillion, Garrison Commander Camp Pendleton State Military Reserve 203 Red Horse Drive Mailing Address: City: State: Zip: Virginia Beach, Virginia 23451 (757) 493-3122 Daytime Telephone: E-mail Address: timothy.d.pillion.mil@mail.mil If the person requesting the Jurisdictional Determination is **NOT** the Property Owner, please also supply the Requestor's contact information here: Requestor Name: Mr. Ken Oristaglio Commonwealth of Virginia Department of Military Affairs **Building 316 Fort Pickett** Mailing Address: City: State: Zip: Blackstone, Virginia 23824-6316 Daytime Telephone: (434) 298-6416 E-mail Address: kenneth.l.oristaglio@us.army.mil Additionally, if you have any of the following information, please include it with your request: wetland delineation map, other relevant maps, drain tile survey, topographic survey, and/or site photographs. CERTIFICATION: I am hereby requesting a preapplication consultation or jurisdictional waters and/or wetlands determination from the U.S. Army Corps of Engineers, for the property(ies) I have described herein. I agree to allow the duly authorized representatives of the Norfolk District Corps of Engineers and other regulatory or advisory agencies to enter upon the premises of the project site at reasonable times to evaluate inspect and photograph site conditions. This consent to enter the property is superior to, takes precedence over, and waives any communication to the contrary. For example, if the property is posted as "no trespassing" this consent specifically supercedes and waives that prohibition and grants permission to enter the property despite such posting. I hereby certify that the information contained in the Request for a Jurisdictional Determination is accurate and complete:

Date

Owner's Signature

Appendix B

Wetland Determination Data Forms

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	Wetland Determinat	ion Data For	m - Atlantic and G	ulf Coas	tal Plain R	egion Samp	oling Point Number: 1
Stantec /			N WETLAND DELINE. Γ OF MILITARY AFFAI		Section/To	ownship/Range:	N/A
Cit	y/County:	VIRGINI	A BEACH		Subregion (L	LRR or MLRA):	T
	State:	VIRG				Site Latitude:	36.816431°
Inves	tigator(s):	B. YC			•	Site Longitude:	-75.97849°
	Date:	10/12	/2017		Soil M	Лар Unit Name:	ACREDALE SILT LOAM
Summary of Findings:			UPLAND SOUTHEAST			HIGHWAY.	
	c Vegetation is Present: X			cumstances:		NWI Classification:	N/A
	lydric Soils are Present: X		Disturbed Parameters (se			Local Relief:	CONVEX
	d Hydrology is Present:		Problematic Parameters (se			Landform:	SLOPE
	ea is within a Wetland:	Atyp	ical Climate/Hydrology (se	e Remarks):		Slope %:	0-2
Hydrology Parameter:					1		
	Primary In	dicators:					lary Indicators:
						Surface Soil Crac	
Surface Water (A1)		Stained Leaves (B9	9)				ed Concave Surface (B8)
High Water Table (A2)		Fauna (B13)				Drainage Patterns	
Saturation (A3)		eposits (B15)				Moss Trim Lines	
Water Marks (B1)		en Sulfide Odor (0				Dry-Season Water	
Sediment Deposits (B2)		•	Living Roots (C3)			Crayfish Burrows	
Drift Deposits (B3)		e of Reduced Iron					e on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Iron Reduction in	Tilled Soils (C6)			Stunted or Stress	` '
Iron Deposits (B5)		uck Surface (C7)				Geomorphic Posi	
Inundation Visible on A	erial Imagery (B7) Other					Shallow Aquitard FAC-Neutral Tes	
						Sphagnum Moss	
Water Depths (inches):			Remarks: HYDROLO	CVDADAI	METER NOT N	1 0	(D0)
Surface Water			Remarks. HIDROLC	GIIAKA	VIETER NOT	VIET.	
Water Table							
Saturated soil							
Vegetation Parameter:	. >20		1				-
vegetation i arameter.							
Dominar	t Species Str	itum IND	%	Non-Doi	minant Species	St	ratum IND %
Pinus	taeda T	ree FAC	25		_		
Querci		ree FACU	20				
Acer r		ree FAC ree FACW	15				
Quercus Acer r		ree FACW ling FAC	15 15				
Liquidamba		ling FAC	15				
Liquidamba	r styraciflua Sł	rub FAC	10				
Smilax ro		rceous FAC	10				
Gelsemium s	empervirens Herb	rceous FAC	5				
		9%			Pr	revalence Index:	3.0
NOTE: SPECIES INDICA	TOR STATUS ACCORDING TO 2016	ATIONAL WETLAND				using all species present.	
Rapid Test for Hydrophyt			Remarks: VEGETAT	ION PARA	METER MET.		
	ce Test >50%: X						
Prevalence	Index is ≤ 3.0 :		1				
Problematic Hydrophy	ic Vegetation:		1				
]				
Soil Parameter:							
	Matrix		<u> </u>	Redox Fea			
Depth (inches)	Color (Moist)	%	Color (Moist)	%	Type	Loc	Texture
0-3	10YR 4/2	100	I	1		I I	LOAM

Soil Parameter:

	Matilx		Redux Fea						
Depth (inches)	Color (Moist)	%	Color (Moist)	%	Type	Loc	Texture		
0-3	10YR 4/2	100					LOAM		
3-20	5Y 7/1	85	10YR 7/8	15	С	M	LOAM		
Hydric Soil Indicators:		•	•	•					
Histosol (A1)	Coast Prairie Red	ox (A16)	Redox Dark	Surface (F6)			Indicators for Problematic Hydric Soils		
Histic Epipedon (A2)	Sandy Mucky Mi	neral (S1)	Depleted Da	ırk Surface (l	77)				
Black Histic (A3)	Sandy Gleyed Ma	atrix (S4)	Redox Depr	essions (F8)			1cm Muck (A9)		
Hydrogen Sulfide (A4)	Sandy Redox (S5)	Marl (F10)				2cm Muck (A10)		
Stratified Layers (A5)	Stripped Matrix (S6)	Depleted Oc	chric (F11)			Reduced Vertic (F18)		
Organic Bodies (A6) Dark Surface (S7)		Iron-Manga	nese Masses	(F12)		Piedmont Floodplain Soils (F19)			
5cm Mucky Mineral (A7)	5cm Mucky Mineral (A7) Polyvalue Below Surface (S8)		Umbric Sur	face (F13)			Anomalous Bright Loamy Soils (F20)		
Muck Presence (A8)	Thin Dark Surfac	e (S9)	Delta Ochri	c (F17)			Red Parent Material (TF2)		
1 cm Muck (A9)	Loamy Mucky M	ineral (F1)	Reduced Ve	rtic (F18)			Very Shallow Dark Surface (TF12)		

Depleted Below Dark Surface (A: Loamy Gleyed Matrix (F2) Thick Dark Surface (A12) X Depleted Matrix (F3)	_	Piedmont Floodplain Soils (F19) Anomalous Bright Loamy Soils (F20)	Other
Restrictive Layer (If Observed)	Remarks:	SOIL PARAMETER MET.	•
Type:			
Depth (inches):			

amn	lina	Daint	Numbe	
аши	Ш	Pomi	Numbe	Γ:

S S	tanted
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Stantec A			PENDLETO		ARY AFFAI		Section/To	ownship/Range		N/A	
	y/County:		VIRGINIA				-	RR or MLRA)		T	
	State:		VIRG				-	Site Latitude		36.816431	
Inves	tigator(s):		B. YO				-	Site Longitude		-75.97849	
	Date:		10/12/	2017			Soil N	Iap Unit Name	YE	EOPIM SILT	LOAM
Summary of Findings:				wi	ETLAND SW	ALE BELO	OW FLAG 'BYI	D-2'			
	c Vegetation is Present:	X				cumstances:		NWI Classifica	ition:	N/A	
	ydric Soils are Present:	X			Parameters (se			Local R	elief:	CONCAV	Œ
Wetland	d Hydrology is Present:	X	I	Problematic 1	Parameters (se	ee Remarks):		Land	form:	DRAINAGEV	WAY
	a is within a Wetland:	X	Atypi	cal Climate/	Hydrology (se	ee Remarks):		Slop	e %:	1-2	
Hydrology Parameter:	р.	7 7					1		C 1 1 1		
	Pru	nary Indica	tors:						Secondary Indic oil Cracks (B6)	cators:	
Surface Water (A1)		Water Stair	ned Leaves (B9)					egetated Concar	ve Surface (B	38)
High Water Table (A2)		Aquatic Fa		,					Patterns (B10)		,
Saturation (A3)		Marl Depos	sits (B15)					Moss Trin	n Lines (B16)		
Water Marks (B1)			Sulfide Odor (C						on Water Table (C2)	
Sediment Deposits (B2)		-	hizospheres on	_	ts (C3)				Burrows (C8)	-1 I (C	70)
Drift Deposits (B3) Algal Mat or Crust (B4)		-	f Reduced Iron Reduction in '		(C6)				Visible on Aeria Stressed Plants		.9)
Iron Deposits (B5)	· -	•	Surface (C7)	i incu bons	(00)				nic Position (D2)		
Inundation Visible on A	erial Imagery (B7)	Other	,						quitard (D3)		
		<u>-</u> '						X FAC-Neur			
				1				Sphagnum	Moss (D8)		
Water Depths (inches):				Remarks:	HYDROLO	OGY PARA	METER MET.				
Surface Water: Water Table:											
Saturated soil:											
Vegetation Parameter:	>20										
Dominan Acer re	•	Stratun Tree	n IND FAC	% 30			minant Species ma triphyllum		Stratum Herbaceous	IND FACW	5
Acer ri Liquidambai		Tree	FAC	15			ma tripnyiium x rotundifolia		Herbaceous	FACW	5
Acer re	ubrum	Sapling	FAC	10			gium vimineum		Herbaceous	FAC	5
Carpinus c Juncus		Shrub Herbaceo	us FAC OBL	5 15							
Toxicodendr		Herbaceo	-	10							
Smilax ro		Vine	FAC	10 10							
% Dominant	species FAC or wetter:	100%					Pr	evalence Index	2.7		
	FOR STATUS ACCORDING		ONAL WETLAND	PLANT LIST				ising all species pr		-	
Rapid Test for Hydrophyt	ic Vegetation:			Remarks:	VEGETAT	TON PARA	METER MET.				
Dominan	ce Test >50%: X	•									
Prevalence	Index is ≤ 3.0 : X	•			IIN	NIDENTIFIE	D DOMINANT	SPECIES OF (CAREX (10%) P	PRESENT	
Problematic Hydrophyt	ic Vegetation:				0.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	2 2011111111	or Ecillo or	3111211 (1070) 1	TEDEI (II	
Soil Parameter:				l							
Son rarameter.	1	Iatrix		1		Redox Fea	tures				
Depth (inches)	Color (Mois		%	Colo	r (Moist)	%	Туре	Loc	-	Texture	
0-4	2.5Y 6/3	,	100		, ,					SANDY LO	
4-20	5Y 8/1		78	10	YR 6/8	20	С	M		LOAM	
				10	YR 5/6	2	С	M			
II 1: C II F				l							
Hydric Soil Indicators:	C+ D-	.:.:. D!	(416)		Dadan Dada	Cooper (EC	`	1	1: D	1.1	. J: - C -: I -
Histosol (A1) Histic Epipedon (A2)		airie Redox lucky Miner		_		Surface (F6) ark Surface (I		1 1	Indicators for Pr	овієтанс ну	aric sous
Black Histic (A3)		leyed Matri		_	Redox Depr		. , ,		1cm Muck	(A9)	
Hydrogen Sulfide (A4)		edox (S5)	()		Marl (F10)	(- 0)			2cm Muck		
Stratified Layers (A5)		Matrix (S6))		Depleted Oc	chric (F11)				/ertic (F18)	
Organic Bodies (A6) Dark Surface (S7)					Iron-Mangar	nese Masses	(F12)		Piedmont I	Floodplain So	oils (F19)
5cm Mucky Mineral (A		e Below Su			Umbric Surf				Anomalous Bright Loamy Soils (F20)		
Muck Presence (A8)		rk Surface (S			Delta Ochrid					t Material (TF	
1 cm Muck (A9)		Aucky Mine			Reduced Ve		ila (E10)		·	low Dark Surf	race (TF12)
Depleted Below Dark S Thick Dark Surface (A1		Gleyed Matr Matrix (F3				loodplain Soi Bright Loam	ils (F19) ly Soils (F20)		Other		
IMCK Dark Surface (Al	_, _A Depicted	(1'3	,			Ziigin LUalli	., 50113 (1 40)				
Restrictive Layer (If Ob	served)			Remarks:	SOIL PAR	AMETER M	1ET.	•			
Туре:											
Depth (inches):											

Stantec		R CAMP PEN								****	
	Applicant: VIRC y/County:	SINIA DEPAR		OF MILITA BEACH	ARY AFFAII	RS		ownship/Range: .RR or MLRA):		N/A T	
Cit	NIA			Sublegion (L	Site Latitude:	36.816431°					
Inves	UNG				Site Longitude:						
	Date:		10/12/2	2017			Soil N	1ap Unit Name:	Yl	EOPIM SILT LOA	ΔM
C CE' I'					TIDY AND D	EL OW EL	C 1707/70 101				
Summary of Findings:	c Vegetation is Present:	X				cumstances:	AG 'BYD-10'.	NWI Classification	n.	N/A	
	Iydric Soils are Present:	X		Disturbed F	Parameters (see	_	<u>A</u>	Local Reli		CONCAVE	
	d Hydrology is Present:		P		Parameters (see			Landfor		SLOPE	
	ea is within a Wetland:				Hydrology (see			Slope		1-3	
Hydrology Parameter:											
	Prime	ary Indicators:							condary Indi	cators:	
G G W (41)			(DO)					Surface Soil		G 6 (D0)	
Surface Water (A1) High Water Table (A2)		Vater Stained Le Aquatic Fauna (I)				Sparsely Veg Drainage Pat		ve Surface (B8)	
Saturation (A3)		Aarl Deposits (E						Moss Trim L			
Water Marks (B1)		Hydrogen Sulfid		1)				Dry-Season		C2)	
Sediment Deposits (B2		Oxidized Rhizos			s (C3)			Crayfish Bur			
Drift Deposits (B3)		resence of Redu								al Imagery (C9)	
Algal Mat or Crust (B4		Recent Iron Red		Filled Soils	(C6)			Stunted or St			
Iron Deposits (B5) Inundation Visible on A		hin Muck Surfa	ace (C7)					X Geomorphic Shallow Aqu)	
Inundation visible on A	teriai imagery (B7)C	Other						FAC-Neutral			
								Sphagnum M			
Water Depths (inches):				Remarks:	HYDROLO	GY PARAN	METER NOT I	MET.			
Surface Water											
Water Table											
Saturated soil	: >20										
Vegetation Parameter:											
Dominar	nt Species	Stratum	IND	%		Non-Don	ninant Species		Stratum	IND %	
	s falcata	Tree	FACU	35		Ace	r rubrum		Tree	FAC 5	
Carya to	omentosa caroliniana	Tree Sapling	UPL FAC	20 15							
Liquidamba	r styraciflua	Shrub	FAC	10							
Lonicera		Herbaceous	FACU	5							
Smilax ro Smilax ro		Herbaceous Vine	FAC FAC	5 5							
	species FAC or wetter: TOR STATUS ACCORDING TO	57%						evalence Index:	3.8	-	
Rapid Test for Hydrophy		2016 NATIONAL	WEILANDI	Remarks:	VECETATI	ION DADAN	METER MET.	using all species prese	nt.		
	ce Test >50%: X			Kemarks.	VEGETATI	ION FARAN	VIETEK MET.				
	Index is ≤ 3.0 :										
Problematic Hydrophy					UN.	IDENTIFIEI	DOMINANT	SPECIES OF FES	SCUE (10%)	PRESENT.	
Soil Parameter:											
D 4 (1 1)		atrix	0/	6.1	0.5.1.0	Redox Feat				T	
Depth (inches) 0-5	Color (Moist) 10YR 3/3		100	Color	r (Moist)	%	Type	Loc		Texture LOAM	
5-20	2.5Y 7/1		95	2.5	5Y 5/6	5	С	M		LOAM	
3-20	2.31 7/1		73	2.3	1 3/0			141		LOAM	
Hydric Soil Indicators:											
Histosol (A1)		rie Redox (A16			Redox Dark			Ind	icators for Pr	oblematic Hydric	Soils
Histic Epipedon (A2)		cky Mineral (S1			_Depleted Da		7)			(10)	
Black Histic (A3)		yed Matrix (S4))	_	Redox Depre	essions (F8)		_	1cm Mucl		
Hydrogen Sulfide (A4) Stratified Layers (A5)	Sandy Red Stripped M				Marl (F10) Depleted Oct	bric (E11)		_	2cm Mucl		
Organic Bodies (A6)			Iron-Mangan		(F12)	_	Reduced Vertic (F18) Piedmont Floodplain Soils (F19)				
Organic Bodies (A6) Dark Surface (S7) 5cm Mucky Mineral (A7) Polyvalue Below Surface (S8)					Umbric Surfa		()	_	Anomalous Bright Loamy Soils (F20)		
Muck Presence (A8)		Surface (S9)	•		Delta Ochric			Red Parent Material (TF2)			
1 cm Muck (A9)		ıcky Mineral (F			_					low Dark Surface	(TF12)
Depleted Below Dark S	Surface (A) Loamy Glo	eyed Matrix (F2	2)	Reduced Vertic (F18) Piedmont Floodplain Soils (F19) Very Shallow Dark Surface (T							
Thick Dark Surface (A		•	-)			-		· ·			
		•	-)	_	Anomalous I	-					
Restricting I man /If Ol	12) X Depleted M	•		Remarks	Anomalous I	Bright Loamy	Soils (F20)				
Restrictive Layer (If Ob Type	X Depleted Noserved)	•		Remarks:		Bright Loamy	Soils (F20)				

4	ı		
Δ	ı		

Stantec Project: 2017 SMR CAMP PENDLETON WETLAND DELINEATION VIRGINIA DEPARTMENT OF MILITARY AFFAIRS								G .: 70	1: 70		NT/A		
Julicec	PP	inty: VIR	VIRGINIA DEPARTMENT OF MILITARY AFFAIRS VIRGINIA BEACH						ownship/Range: LRR or MLRA):		N/A T		
		tate:		VIRGINIA				Subregion (1	Site Latitude:		36.81643	1°	
	Investigato		B. YOUNG						Site Longitude:		-75.9784		
	I	Date:		10/12/	2017			Soil N	Map Unit Name:	RUM	IFORD FINI	E SANDY	
Summary of Findings:						WETLAND	BELOW F	LAG 'BYF-6'.					
	ophytic Veg	getation is Present:	X				cumstances:		NWI Classifica	tion:	N/A		
	Hydric	Soils are Present:	X			Parameters (see			Local Re	elief:	CONCAV		
		drology is Present:	X			Parameters (see			Landf		FLOODPL	AIN	
		within a Wetland:	X	Atypi	cal Climate/	Hydrology (see	e Remarks):		Slop	e %:	1-3		
Hydrology Parameter:		Pris	nary Indica	tore:						Secondary Indic	ators:		
		1111	пигу тинси	uors.						il Cracks (B6)	uiors.		
Surface Water (A	1)		Water Stair	ned Leaves (B9)					egetated Conca	ve Surface (I	38)	
High Water Table	e (A2)		Aquatic Fa							Patterns (B10)			
X Saturation (A3)	,		Marl Depos							Lines (B16)	GQ.		
Water Marks (B1 Sediment Deposi				Sulfide Odor (C hizospheres on		te (C3)				n Water Table (urrows (C8)	C2)		
Drift Deposits (B				Reduced Iron	_	is (C3)				Visible on Aeri	al Imagery (C9)	
Algal Mat or Cru				Reduction in		(C6)				Stressed Plants		,	
Iron Deposits (B	5)		Thin Muck	Surface (C7)					Geomorph	ic Position (D2)	ı		
Inundation Visible	le on Aerial	Imagery (B7)	Other							quitard (D3)			
									X FAC-Neut	ral Test (D5) Moss (D8)			
Water Depths (inches):				Remarks:	HYDROLO	GY PARAN	METER MET.	Spiiagnum	141022 (DQ)			
Surface													
	Table:												
Saturate	ed soil:	4											
Vegetation Parameter:													
Do	minant Spe	cies	Stratun	n IND	%		Non-Do	minant Species		Stratum	IND	%	
	Acer rubrur		Tree	FAC	25			ıbar styraciflua		Shrub	FAC	5	
	dambar styr		Tree	FAC	15			um scabriusculi	um	Herbaceous	OBL	10	
	pinus caroli mus americ		Sapling Sapling		10 5			ea sensibilis richum pilosum	,	Herbaceous Herbaceous	FACW FAC	5 5	
	charis halim	ifolia	Shrub	FAC	20		Smilax	rotundifolia		Herbaceous	FAC	5	
Mione	Pinus taedo stegium vin		Shrub Herbaceo	FAC FAC	10 Dichanthelium dichotomum Herbaceous FAC 3							3	
	uncus effus		Herbaceo		25 25								
	odendron ra		Vine	FAC	3								
0/ P		. Did	1000/							2.6			
		ies FAC or wetter: TATUS ACCORDING	100%	ONAL WETLAND	DI ANT LICT				evalence Index: using all species pr		-		
Rapid Test for Hyd			10 2016 NATI	JNAL WEILAND	Remarks:	VEGETATI	ION PARAI	METER MET.		esent.			
	minance Te				remarks.	'LGLINII	1011111111	ILILIC MLI					
Preva	alence Index	is ≤ 3.0: X											
Problematic Hyd	lrophytic Ve	egetation:											
G. N. D.													
Soil Parameter:			Iatrix		ı		Dadan Faa	·					
Depth (inches)		Color (Mois		%	Colo	r (Moist)	Redox Fea	Type	Loc		Texture	P	
0-7		7.5YR 4/1	-,	98		YR 6/2	2	С	M		CLAY LO		
7-20		2.5Y 6/1		78		YR 5/8	20	С	M		CLAY LO		
						YR 3/6	2	С	PL				
H 1: 0 37 "					<u> </u>					<u> </u>			
Hydric Soil Indicators	3:	G I P	· · D 1	(110)		D.I. D.I.	C C (FC)		<u> </u>	E C D	11	1	
Histosol (A1) Histic Epipedon	(A2)		airie Redox ucky Miner		_	Redox Dark Depleted Da				ndicators for Pr	oviematic H	yarıc sons	
Black Histic (A3)			leyed Matri		_	Redox Depre		• • •		1cm Muck	(A9)		
Hydrogen Sulfide			edox (S5)	(- /		Marl (F10)	,	2cm Muck (A10)					
Stratified Layers	(A5)	Stripped	Matrix (S6))	_	Depleted Oc				Reduced V	Vertic (F18)		
Organic Bodies (A6)	Dark Sur	face (S7)			Iron-Mangan	nese Masses	(F12)		Piedmont	Floodplain S	oils (F19)	
5cm Mucky Mine			e Below Su		_	Umbric Surf					_	my Soils (F20)	
Muck Presence (A)	A8)		k Surface (S		_	Delta Ochric					t Material (T		
1 cm Muck (A9) Depleted Below	Dark Surfee		Iucky Mine leyed Matr			Reduced Ver Piedmont Flo		ls (F10)		Other	ow Dark Sui	rface (TF12)	
Thick Dark Surfa		X Depleted	•		_	Anomalous I	-			ouler			
	()		(2.5)	,	_		-o 20um	, (* 20)					
Restrictive Layer	(If Observe	rd)			Remarks:	SOIL PARA	AMETER M	IET.					
	Type:												
Depth (i	nches):												

Stanted	DELINEA RY AFFAIR		Section/To	ownship/Range:	N/A							
	Applicant: City/County:		VIRGINIA		XI AITAIN			RR or MLRA):	T	N/A T		
	State:		VIRG				~~~~~	Site Latitude:	36.81643	31°		
	Investigator(s):		B. YO					Site Longitude:	-75.9784	19°		
	Date:		10/12	/2017			Soil M	Iap Unit Name:	CHAPANOKE S	ILT LOAM		
Summary of Findings:					UPLAND A	BOVE FL	AG 'BYI-28'.					
Hydr	ophytic Vegetati	on is Present: X			Normal Circ	umstances:	X	NWI Classification	n: N/A			
	•	s are Present: X		Disturbed Par				Local Relief				
	Wetland Hydrolo			Problematic Par		-		Landform		EWAY		
Hydrology Parameter:	ed Area is within	n a wetiand:	Atyp	ical Climate/Hy	drology (see	Remarks):		Slope %	: 1-3			
Trydrology 1 arameter.		Primary Indic	ators:					Seco	ondary Indicators:			
		·						Surface Soil C	•			
Surface Water (A			ned Leaves (B9))			-		etated Concave Surface (B8)		
High Water Table	e (A2)		una (B13)				-	Drainage Patte				
Saturation (A3) Water Marks (B1)	Marl Depo	Sulfide Odor (C	C1)			-	Moss Trim Lir Dry-Season W	ater Table (C2)			
Sediment Deposi				Living Roots ((C3)		-	Crayfish Burro				
Drift Deposits (B	(3)	Presence of	f Reduced Iron	(C4)			-	Saturation Vis	sible on Aerial Imagery (C9)		
Algal Mat or Cru				Tilled Soils (C	6)		-		essed Plants (D1)			
Iron Deposits (B:			Surface (C7)				-	X Geomorphic P Shallow Aquit				
Inundation Visib	ie on Aeriai imag	gery (B7) Other					-	FAC-Neutral				
							-	Sphagnum Mo	* *			
Water Depths (inches				Remarks: I	HYDROLO	GY PARAN	METER NOT M	иет.				
Surface	-	•										
	Table:	•										
Saturate Vegetation Parameter:				<u> </u>								
vegetation i arameter.												
	minant Species	Stratu		%			ninant Species		Stratum IND	%		
	uercus phellos Acer rubrum	Tree Tree	FACW FAC	20 15		Liquidam	bar styraciflua		Sapling FAC	5		
	arya tomentosa	Tree	UPL	10								
	pinus caroliniana			20								
	Acer rubrum rium asplenioide	s Saplin Herbace		10 5								
	nicera japonica	Herbace		3								
Vi	tis rotundifolia	Herbace	ous FAC	3								
										<u> </u>		
0/ Do	minant anasias E	AC or watter 75%					Dec	evalence Index:	2.0			
	minant species F.	AC or wetter: 75% S ACCORDING TO 2016 NATI	ONAL WETLAND	PLANT LIST				evalence index:	3.0			
Rapid Test for Hyd			ONAL WEILAND		VEGETATIO	ON PARAN	METER MET.	sing an species present				
1	minance Test >5			Ttoman,	, 2021.111	011111111						
	alence Index is <											
Problematic Hyd	lrophytic Vegetat	tion:										
G 3D :				1								
Soil Parameter:		Mari		1		Dod E - 1						
Depth (inches)		Matrix Color (Moist)	%	Color (Redox Feat	Type	Loc	Textur	re		
0-4		10YR 4/4	100	Color ((TOISE)	70	Type	Loc	LOAM			
4-8		10YR 5/2	100	1					LOAM			
8-20		2.5Y 6/2	90	10YR	2 6/8	10	С	M	CLAY LO			
TI 1: 0 3: "												
Hydric Soil Indicators	3:	Coast Desiring 1	(116)		Dadon D. 1.1	Sunfa (TC)		у 1.	agtons for De-L1 Y	Judnia C-:1-		
Histosol (A1) Histic Epipedon	(A2)	Coast Prairie Redox Sandy Mucky Mine			Redox Dark S Depleted Dar			Indic	cators for Problematic H	iyaric sous		
Black Histic (A3		Sandy Gleyed Matr			Redox Depre		• 1)		1cm Muck (A9)			
Hydrogen Sulfide		Sandy Redox (S5)	(5.)		Marl (F10)	3310113 (1 0)			2cm Muck (A10)			
Stratified Layers		Stripped Matrix (S6)		Depleted Och	ric (F11)						
Organic Bodies (A6)	Dark Surface (S7)		I	ron-Mangane	ese Masses ((F12)		Piedmont Floodplain S	Soils (F19)		
5cm Mucky Mine	eral (A7)	Polyvalue Below St	ırface (S8)	<u> </u>	Jmbric Surfa	ce (F13)			Anomalous Bright Loa	amy Soils (F20)		
Muck Presence (A8)	Thin Dark Surface (Delta Ochric			I —	Red Parent Material (7			
1 cm Muck (A9)	D 10 2	Loamy Mucky Min			Reduced Ver		(T10)	I —	Very Shallow Dark Su	rrtace (TF12)		
Depleted Below 1 Thick Dark Surfa		Loamy Gleyed Mat X Depleted Matrix (F.			Piedmont Flo		ls (F19) y Soils (F20)	I —	Other			
I HICK DAFK SUFTA	nc (A12)	Depleted Matrix (F.	,		anomaious B	argat Loamy	y 50118 (F20)	- [
Restrictive Layer	(If Observed)			Remarks: \$	SOIL PARA	METER M	ET.					
]	Type:		_									
Depth (i		·		<u> </u>								

Stantec A		R CAMP PENDLE				Section/Township/Range: N/A					
	y/County:		NIA BEACH		IKS		LRR or MLRA):		T		
·	State:	V	IRGINIA				Site Latitude:		36.816431°		
Invest	tigator(s):	B.	YOUNG				Site Longitude:		-75.97849°		
	Date:	10	0/12/2017			Soil N	Map Unit Name:	CHAI	PANOKE SILT LO	AM	
Summary of Findings:			W	ETLAND SW	ALE BELOV	W FLAG 'BYI	-20'.				
	c Vegetation is Present:	X			rcumstances:	X	NWI Classificati		N/A		
	ydric Soils are Present:	X		l Parameters (se	_		Local Rel		CONCAVE		
	d Hydrology is Present: _ a is within a Wetland:	X	Problematic Atypical Climate	Parameters (se	_	_	Landfor Slope		DRAINAGEWAY 2-4		
Hydrology Parameter:	a is within a welling		мурген синин	o, i i j di ologji (oc	or remarks).		Бюре	70.			
v ov	Prima	ary Indicators:					Se	econdary Indic	ators:		
Surface Water (A1) High Water Table (A2)		Vater Stained Leaves Aquatic Fauna (B13)	(B9)				Sparsely Ve	Cracks (B6) getated Concav tterns (B10)	ve Surface (B8)		
X Saturation (A3)		farl Deposits (B15)					Moss Trim				
Water Marks (B1) Sediment Deposits (B2)		lydrogen Sulfide Od Oxidized Rhizospher		ota (C2)			Dry-Season Crayfish Bu	Water Table (C	22)		
Drift Deposits (B3)		resence of Reduced		ots (C3)					al Imagery (C9)		
Algal Mat or Crust (B4)	F	ecent Iron Reductio	n in Tilled Soils	(C6)				tressed Plants			
Iron Deposits (B5)		hin Muck Surface (C7)				X Geomorphic				
Inundation Visible on A	erial Imagery (B/)(Other					Shallow Aq FAC-Neutra				
							Sphagnum N				
Water Depths (inches):			Remarks:	HYDROLO	OGY PARAN	METER MET.					
Surface Water: Water Table:											
Saturated soil:											
Vegetation Parameter:			I								
Domino	4 C	Stanton I IN	TD 0/		Non Don			C44	IND 0/	7	
Dominan Acer ri	•	Stratum IN				ninant Species r rubrum		Stratum Sapling	IND % FAC 10	-	
Liquidambar		Tree FA									
Carpinus co Ulmus an		Sapling FA Sapling FA									
Carpinus co		Shrub FA									
Athyrium as Microstegiui		Herbaceous FA									
									1		
									1		
									1		
									1		
										-	
	species FAC or wetter:	100%					revalence Index:	3.0	ı		
Rapid Test for Hydrophyt	FOR STATUS ACCORDING TO	2016 NATIONAL WETL	Remarks:	VECETAT	TON DADAN	Calculated METER MET.	using all species pres	ent.			
1 , 1 ,	ce Test >50%: X		Kemarks.	VEGETAT	IONTAKAN	HETEK MET.					
Prevalence l	Index is ≤ 3.0: X										
Problematic Hydrophyt	ic Vegetation:										
Soil Parameter:											
Son i di dinetti:	Ma	trix			Redox Feat	ures			ı		
Depth (inches)	Color (Moist)	%	Col	or (Moist)	%	Type	Loc		Texture	,	
0-1	10YR 3/2	100							CLAY LOAM		
1-16	5Y 6/1	70		5YR 6/8 5YR 5/8	25 5	C C	M M		CLAY LOAM		
				J 1 K J/O	3		ivi				
Hydric Soil Indicators:											
Histosol (A1)		rie Redox (A16)	_		Surface (F6)		Inc	dicators for Pro	oblematic Hydric S	oils	
Histic Epipedon (A2) Black Histic (A3)		cky Mineral (S1) yed Matrix (S4)	_		ark Surface (F ressions (F8)	'7)		1cm Muck	(A9)		
Hydrogen Sulfide (A4)	Sandy Rec		_	Marl (F10)	cosions (1 o)		-	2cm Muck			
Stratified Layers (A5)	Stripped N	fatrix (S6)		Depleted O	chric (F11)			Reduced V	ertic (F18)		
Organic Bodies (A6)	Dark Surfa		_		nese Masses ((F12)	_		Floodplain Soils (F		
5cm Mucky Mineral (A'		Below Surface (S8)	_	Umbric Sur			-		Bright Loamy Soi	Is (F20)	
Muck Presence (A8) 1 cm Muck (A9)		Surface (S9) icky Mineral (F1)	_	Delta Ochri Reduced Ve			-		: Material (TF2) ow Dark Surface (T	ΓF12)	
Depleted Below Dark S		eyed Matrix (F2)	_	_	loodplain Soil	ls (F19)	-	Other	Zan Sarrace (1		
Thick Dark Surface (A1			_		Bright Loamy		_				
	T)		l	new -:	4.3.4Fmw== :						
Restrictive Layer (If Ob. Type:			Remarks:	SOIL PAR	AMETER M	ET.					
Depth (inches):											

Chamba a	SMR CAMP PENDLE				C+: /T-			NI/A				
Applicant: V							Section/Township/Range: N/A Subregion (LRR or MLRA): T					
State:		RGINIA			Site Latitude: 36.816431°							
Investigator(s):		YOUNG				Site Longitude:		-75.97849°				
Date:	10	/12/2017			Soil N	Iap Unit Name: _	RUMFOR	D FINE SANDY LO)AM			
Summary of Findings:			WETLAND!	BELOW FL	AG 'BAA-123'							
Hydrophytic Vegetation is Prese	nt: X		Normal Cir	cumstances:	X	NWI Classification	on:	N/A				
Hydric Soils are Prese			Parameters (se			Local Reli		CONCAVE				
Wetland Hydrology is Prese			Parameters (se			Landfor	-	SLOPE				
Sampled Area is within a Wetlan Hydrology Parameter:	d: X	typicai Ciimate	e/Hydrology (se	ee Remarks):		Slope	%:	2-4				
• 5	Primary Indicators:					Se	condary Indica	tors:				
	,					Surface Soil	•					
1 <u> </u>							getated Concave	Surface (B8)				
High Water Table (A2) Saturation (A3)					Drainage Pa Moss Trim I							
Water Marks (B1)	Marl Deposits (B15) Hydrogen Sulfide Ode	or (C1)					Water Table (C:	2)				
Sediment Deposits (B2)	Oxidized Rhizosphere		ots (C3)			X Crayfish Bu		,				
Drift Deposits (B3)	Presence of Reduced						isible on Aerial					
Algal Mat or Crust (B4) Iron Deposits (B5)	Recent Iron Reduction Thin Muck Surface (C		(C6)				tressed Plants (I Position (D2)	01)				
Inundation Visible on Aerial Imagery (B7)	Other	.1)				Shallow Aqu						
	_					X FAC-Neutra	l Test (D5)					
		la .	**********			Sphagnum N	loss (D8)					
Water Depths (inches): Surface Water:		Remarks:	HYDROLO	JGY PARAN	METER MET.							
Water Table:												
Saturated soil: >20												
Vegetation Parameter:												
Dominant Species	Stratum IN	D %		Non-Doi	ninant Species		Stratum	IND %				
Acer rubrum	Tree FA											
Liquidambar styraciflua Acer rubrum	Sapling FA Sapling FA											
Morella cerifera	Shrub FA											
Pinus taeda Liquidambar styraciflua	Shrub FA Shrub FA											
Microstegium vimineum	Herbaceous FA											
Smilax rotundifolia Juncus effusus	Herbaceous FA Herbaceous OF											
Smilax rotundifolia	Herbaceous FA											
% Dominant species FAC or wette	er: 100%		Prevalence Index: 3.0									
NOTE: SPECIES INDICATOR STATUS ACCORDIN	IG TO 2016 NATIONAL WETL					using all species pres	ent.					
Rapid Test for Hydrophytic Vegetation: Dominance Test >50%: X	<u>—</u>	Remarks:	VEGETAT	ION PARA	METER MET.							
Prevalence Index is ≤ 3.0 : X	_											
Problematic Hydrophytic Vegetation:												
	<u> </u>											
Soil Parameter:	Matrix			Redox Feat								
Depth (inches) Color (Mo		Cole	or (Moist)	%	Type	Loc		Texture	<u> </u>			
0-3 10YR 3			()	,,,	- J p v		FIN	E SANDY LOAM				
3-8 10YR 4			0YR 5/8	10	С	M		E SANDY LOAM				
8-20 10YR 6	/2 80	10	0YR 5/8	20	С	M		CLAY LOAM				
	 	+		+ -								
Hydric Soil Indicators:				1								
Histosol (A1) Coast	Prairie Redox (A16)	_	Redox Dark	Surface (F6)		Inc	licators for Pro	blematic Hydric Soil	s			
<u> </u>	Mucky Mineral (S1)	_		ark Surface (F	7)							
<u> </u>	Gleyed Matrix (S4) Redox (S5)	_	Redox Depre Marl (F10)	essions (F8)		_		1cm Muck (A9) 2cm Muck (A10)				
	ed Matrix (S6)	_	Depleted Oc	chric (F11)		-	Reduced Ve					
Organic Bodies (A6) Dark	Surface (S7)	_	Iron-Mangar	nese Masses	(F12)			oodplain Soils (F19)				
<u> </u>	alue Below Surface (S8)	_	Umbric Surf			_		Bright Loamy Soils	(F20)			
1 — — — — — — — — — — — — — — — — — — —	Oark Surface (S9) y Mucky Mineral (F1)	_	Delta Ochric Reduced Ve		Red Parent Material (TF2) Very Shallow Dark Surface (TF12)				12)			
<u> </u>	y Gleyed Matrix (F2)	_		loodplain Soi	ls (F19)	-	Other		-/			
	ted Matrix (F3)	_		Bright Loam		_						
D												
Restrictive Layer (If Observed)		r .	Remarks: SOIL PARAMETER MET.									
Type:		Remarks:	SOIL PAR	AMETER M	IET.							

Copy VIERCINA	Stantec A		MP PENDLETO DEPARTMENT				Section/Township/Range: N/A					
Description							Subregion (L	RR or MLRA):		T		
Summary of Findings Summary of Findings								-				
Summary of Findings	Invest							_	DIIMEO		VIOAM	
Phytherspirits Present Protect Productive Section Proceed Productive Section Prod		Date.	10/12	/2017			SOII IV	rap Omit Name.	KUMFO	XD FINE SAIND	LOAM	
Polymer Schize Present		Vt-ti i- Dt	1	U						NI/A		
Supplied Problems Problems Problems Supplied Supplied	, , ,		_	Disturbed			<u>X</u>					
Supple Area is within a Weltard: Applied Climate Hydrology Cose Records. Stope No. 2-4		·									7	
Surface Water (A)	Sampled Are	a is within a Wetland:						Slope	%:	2-4		
Surface Water (A1)	Hydrology Parameter:											
Section Sect		Primary In	dicators:							ators:		
High Warr Toble (A2)	Surface Water (A1)	Water S	Stained Leaves (B9))					. ,	ve Surface (B8)		
Water Marks (11)	High Water Table (A2)	Aquatio	Fauna (B13)									
Sediment Deposits (12)				71)						72\		
Dominus species FAC or weter		· ·			ts (C3)					22)		
This Depois (BS)				-	us (C3)		<u> </u>					
Sandaron Visible on Actival Imagery (87)				Tilled Soils	(C6)		Stunted or Stressed Plants (D1)					
Water Depths (Inches): Sphagenum Moss (DS)			uck Surface (C7)									
Water Depths (inches)	inundation visible on A	eriai imagery (B/)Other										
Surface Water Table: Sammards usil: >201							•					
Vegetation Parameter: Dominant Species Stratum IND St.	=			Remarks:	HYDROLO	GY PARAN	METER NOT N	ЛЕТ.				
Vegetation Parameter:												
Dominant Species												
Figure Fact Fact		, 20		I								
Figure Fact Fact									G			
Liquidamber syraciflan Content of the Content o		•									-	
Liquidambar styrecifilan Sarub FAC 20 Herbaceous FAC 20 Herbaceous FAC 20 Herbaceous FAC 10 Herbac	Liquidambar	styraciflua Tı	ree FAC	15								
Liquidamber styracifilau Vitis rotantifolida Lonicera japonica FAC 10 Herbaccous FAC 10 Herbaccous FAC 10 Herbaccous FAC 10 Herbaccous FAC 10 FAC FAC 10 FAC FAC 10 FAC FAC												
### Herbaccoas FACU 5 ### Mominant species FAC or wetter: 71%	Liquidambar	styraciflua Sh	rub FAC	FAC 20								
## Dominant species FAC or wetter: ## 21%												
Regid Test for Hydrophytic Vegetation:	Loncera	јарониса	iccous TACO	3								
Regid Test for Hydrophytic Vegetation:												
Regid Test for Hydrophytic Vegetation:												
Regid Test for Hydrophytic Vegetation:												
Regid Test for Hydrophytic Vegetation:												
Regid Test for Hydrophytic Vegetation:												
Regid Test for Hydrophytic Vegetation:												
Regid Test for Hydrophytic Vegetation:												
Regid Test for Hydrophytic Vegetation:												
Regid Test for Hydrophytic Vegetation:												
Remarks Nation Remarks Remar		·						-				
Dominance Test >50%: X Prevalence Index is ≤ 3.0:			ATIONAL WETLAND		VECETATI	ION DADA		ising all species pre	sent.			
Prevalence Index is ≤ 3.0:				Remarks:	VEGETATI	ION PARA	WEIER MEI.					
Matrix												
Depth (inches) Color (Moist) % Color (Moist) % Type Loc Texture	Problematic Hydrophyt	ic Vegetation:										
Depth (inches) Color (Moist) % Color (Moist) % Type Loc Texture	C-3 D (
Depth (inches)	Son Parameter:	Matriv		1		Redov Fee	tures					
Hydric Soil Indicators: Histosol (A1) Coast Prairie Redox (A16) Redox Dark Surface (F6) Histic Epipedon (A2) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Black Histic (A3) Sandy Redox (S5) Marl (F10) 2cm Muck (A10) Stratified Layers (A5) Stripped Matrix (S6) Depleted Ochric (F11) Reduced Vertic (F18) Organic Bodies (A6) Dark Surface (S9) Delta Ochric (F17) Red Perent Mucky Mineral (A7) Polyvalue Below Surface (S9) Delta Ochric (F17) Red Parent Material (TF2) Piedmont Floodplain Soils (F19) Thick Dark Surface (A1 Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F20) Restrictive Layer (If Observed) Type: Hydric Soil Indicators: Mick Prairie Redox (A16) Redox Dark Surface (F6) Depleted Dark Surface (F7) Indicators for Problematic Hydric Soils Icm Muck (A9) Loam Muck (A9) Depleted Dark Surface (F6) Indicators for Problematic Hydric Soils Icm Muck (A9) Loam Muck (A9) Depleted Ochric (F11) Redox Depleted Ochric (F11) Reduced Vertic (F11) Reduced Vertic (F18) Piedmont Floodplain Soils (F19) Anomalous Bright Loamy Soils (F20) Other Restrictive Layer (If Observed) Type:	Depth (inches)		%	Colo	r (Moist)			Loc		Texture		
Hydric Soil Indicators: Histosol (A1)	0-3	2.5Y 3/3	_						FI	NE SANDY LOA	M	
Histosol (A1) Coast Prairie Redox (A16) Redox Dark Surface (F6) Indicators for Problematic Hydric Soils Histic Epipedon (A2) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Black Histic (A3) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Icm Muck (A9) Hydrogen Sulfide (A4) Sandy Redox (S5) Marl (F10) Zcm Muck (A10) Stratified Layers (A5) Stripped Matrix (S6) Depleted Ochric (F11) Reduced Vertic (F18) Organic Bodies (A6) Dark Surface (S7) Iron-Manganese Masses (F12) Piedmont Floodplain Soils (F19) Scm Mucky Mineral (A7) Polyvalue Below Surface (S8) Umbric Surface (F13) Anomalous Bright Loamy Soils (F20) Muck Presence (A8) Thin Dark Surface (S9) Delta Ochric (F17) Red Parent Material (TF2) 1 cm Muck (A9) Loamy Mucky Mineral (F1) Reduced Vertic (F18) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A12) Depleted Matrix (F2) Piedmont Floodplain Soils (F20) Restrictive Layer (If Observed) Type: Remarks: SOIL PARAMETER NOT MET.	3-20	2.5Y 5/3	90	2.	5Y 6/6	10	С	M		CLAY LOAM		
Histosol (A1) Coast Prairie Redox (A16) Redox Dark Surface (F6) Indicators for Problematic Hydric Soils Histic Epipedon (A2) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Black Histic (A3) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Icm Muck (A9) Hydrogen Sulfide (A4) Sandy Redox (S5) Marl (F10) Zcm Muck (A10) Stratified Layers (A5) Stripped Matrix (S6) Depleted Ochric (F11) Reduced Vertic (F18) Organic Bodies (A6) Dark Surface (S7) Iron-Manganese Masses (F12) Piedmont Floodplain Soils (F19) Scm Mucky Mineral (A7) Polyvalue Below Surface (S8) Umbric Surface (F13) Anomalous Bright Loamy Soils (F20) Muck Presence (A8) Thin Dark Surface (S9) Delta Ochric (F17) Red Parent Material (TF2) 1 cm Muck (A9) Loamy Mucky Mineral (F1) Reduced Vertic (F18) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A12) Depleted Matrix (F2) Piedmont Floodplain Soils (F20) Restrictive Layer (If Observed) Type: Remarks: SOIL PARAMETER NOT MET.				1								
Histosol (A1) Coast Prairie Redox (A16) Redox Dark Surface (F6) Indicators for Problematic Hydric Soils Histic Epipedon (A2) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Black Histic (A3) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Icm Muck (A9) Hydrogen Sulfide (A4) Sandy Redox (S5) Marl (F10) Zcm Muck (A10) Stratified Layers (A5) Stripped Matrix (S6) Depleted Ochric (F11) Reduced Vertic (F18) Organic Bodies (A6) Dark Surface (S7) Iron-Manganese Masses (F12) Piedmont Floodplain Soils (F19) Scm Mucky Mineral (A7) Polyvalue Below Surface (S8) Umbric Surface (F13) Anomalous Bright Loamy Soils (F20) Muck Presence (A8) Thin Dark Surface (S9) Delta Ochric (F17) Red Parent Material (TF2) 1 cm Muck (A9) Loamy Mucky Mineral (F1) Reduced Vertic (F18) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A12) Depleted Matrix (F2) Piedmont Floodplain Soils (F20) Restrictive Layer (If Observed) Type: Remarks: SOIL PARAMETER NOT MET.				 								
Histic Epipedon (A2) Black Histic (A3) Sandy Mucky Mineral (S1) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) Dark Surface (S7) Depleted Ochric (F11) Organic Bodies (A6) Dark Surface (S7) John Mucky Mineral (A7) Muck Presence (A8) Thin Dark Surface (S9) Depleted Ochric (F13) Muck Presence (A8) Thin Dark Surface (S9) Depleted Ochric (F17) Reduced Vertic (F18) Depleted Ochric (F17) Red Parent Material (TF2) Anomalous Bright Loamy Soils (F20) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A12) Depleted Matrix (F3) Remarks: SOIL PARAMETER NOT MET.	Hydric Soil Indicators:											
Black Histic (A3) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Hydrogen Sulfide (A4) Sandy Redox (S5) Marl (F10) Stratified Layers (A5) Stripped Matrix (S6) Depleted Ochric (F11) Organic Bodies (A6) Dark Surface (S7) Iron-Manganese Masses (F12) Piedmont Floodplain Soils (F19) Scm Mucky Mineral (A7) Polyvalue Below Surface (S8) Umbric Surface (F13) Anomalous Bright Loamy Soils (F20) Muck Presence (A8) Thin Dark Surface (S9) Delta Ochric (F17) Red Parent Material (TF2) 1 cm Muck (A9) Loamy Mucky Mineral (F1) Reduced Vertic (F18) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A1 Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) Thick Dark Surface (A12) Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) Restrictive Layer (If Observed) Type: Remarks: SOIL PARAMETER NOT MET.								In	dicators for Pr	oblematic Hydric	Soils	
Hydrogen Sulfide (A4) Sandy Redox (S5) Marl (F10) Stratified Layers (A5) Organic Bodies (A6) Dark Surface (S7) Iron-Manganese Masses (F12) Piedmont Floodplain Soils (F19) Scm Mucky Mineral (A7) Polyvalue Below Surface (S8) Muck Presence (A8) Thin Dark Surface (S9) Delta Ochric (F17) Red Parent Material (TF2) Depleted Below Dark Surface (A1 Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) Piedmont Floodplain Soils (F19) Piedmont Floodplain Soils (F19) Piedmont Floodplain Soils (F19) Anomalous Bright Loamy Soils (F20) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Piedmont Floodplain Soils (F19) Piedmont Floodplain Soils (F19) Anomalous Bright Loamy Soils (F20) Restrictive Layer (If Observed) Type: Remarks: SOIL PARAMETER NOT MET.				_			7 7)		1 1/4 1	(10)		
Stratified Layers (A5) Stripped Matrix (S6) Depleted Ochric (F11) Reduced Vertic (F18) Organic Bodies (A6) Dark Surface (S7) Iron-Manganese Masses (F12) Piedmont Floodplain Soils (F19) 5cm Mucky Mineral (A7) Polyvalue Below Surface (S8) Umbric Surface (F13) Anomalous Bright Loamy Soils (F20) Muck Presence (A8) Thin Dark Surface (S9) Delta Ochric (F17) Red Parent Material (TF2) 1 cm Muck (A9) Loamy Mucky Mineral (F1) Reduced Vertic (F18) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) Thick Dark Surface (A12) Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) Restrictive Layer (If Observed) Type: Remarks: SOIL PARAMETER NOT MET.				_	_	essions (F8)		-				
Organic Bodies (A6) Dark Surface (S7) Iron-Manganese Masses (F12) Piedmont Floodplain Soils (F19) Anomalous Bright Loamy Soils (F20) Muck Presence (A8) Thin Dark Surface (S9) Delta Ochric (F17) Red Parent Material (TF2) Piedmont Floodplain Soils (F19) Anomalous Bright Loamy Soils (F20) Red Parent Material (TF2) Piedmont Floodplain Soils (F19) Red Parent Material (TF2) Piedmont Floodplain Soils (F19) Red Parent Material (TF2) Piedmont Floodplain Soils (F20) Red Parent Material (TF2) Piedmont Floodplain Soils (F20) Anomalous Bright Loamy Soils (F19) Other Restrictive Layer (If Observed) Type: Remarks: SOIL PARAMETER NOT MET.				_		hric (F11)		-				
Muck Presence (A8) Thin Dark Surface (S9) Delta Ochric (F17) Red Parent Material (TF2) 1 cm Muck (A9) Loamy Mucky Mineral (F1) Reduced Vertic (F18) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) Thick Dark Surface (A12) Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) Restrictive Layer (If Observed) Type: SOIL PARAMETER NOT MET.				_			(F12)	-			F19)	
1 cm Muck (A9) Loamy Mucky Mineral (F1) Reduced Vertic (F18) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) Other Thick Dark Surface (A12) Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) Restrictive Layer (If Observed) Remarks: SOIL PARAMETER NOT MET.		· - ·		_							oils (F20)	
Depleted Below Dark Surface (A Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) Other Thick Dark Surface (A12) Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) Restrictive Layer (If Observed) Remarks: SOIL PARAMETER NOT MET.				_				-			(TF12)	
Thick Dark Surface (A12) Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) Restrictive Layer (If Observed) Remarks: SOIL PARAMETER NOT MET.				_	_		ls (F19)	-		JW Dark Sufface	(11-12)	
Туре:				_				-				
Туре:				_	_							
				Remarks:	SOIL PARA	AMETER N	OT MET.					

Stantec A	·				ND DELINEA ARY AFFAIF		Section/T	ownship/Range:		N/A			
	y/County:		VIRGINIA				•	LRR or MLRA):		T			
	State:		VIRG				•	Site Latitude:		36.816431°			
Invest	tigator(s): Date:		B. YO 10/12/				C-:13	Site Longitude:	DIMEO	-75.97849° ORD FINE SAN			
	Date:		10/12/	2017			5011 1	Map Unit Name:	KUMFO	KD FINE SAL	ND1 LOAM		
Summary of Findings:		***		UPI			Γ OF 'BAA' LI			27/4			
	c Vegetation is Present: lydric Soils are Present:	X		Disturbed l	Normal Circ Parameters (see		<u>X</u>	NWI Classificat Local Re		N/A CONCAVE	F.		
	d Hydrology is Present:		I		Parameters (see			Landfo		DRAINAGEW			
Sampled Are	a is within a Wetland:		Atypi	cal Climate/	Hydrology (see	Remarks):		Slope	e %:	0-1			
Hydrology Parameter:		7 7 4							7 7 7				
	Prin	mary Indicate	ors:						Secondary Indicators: ace Soil Cracks (B6)				
Surface Water (A1)		Water Staine	d Leaves (B9)					egetated Conca	ve Surface (B8	3)		
High Water Table (A2)	_	Aquatic Faur							atterns (B10)				
Saturation (A3) Water Marks (B1)		Marl Deposit	ts (B15) dfide Odor (C	917			Moss Trim Lines (B16) Dry-Season Water Table (C2)						
Sediment Deposits (B2)			izospheres on		ts (C3)		Crayfish Burrows (C8)						
Drift Deposits (B3)		_	Reduced Iron	-	(/		Saturation Visible on Aerial Imagery (C9)						
Algal Mat or Crust (B4)		-	Reduction in	Γilled Soils	(C6)				Stressed Plants				
Iron Deposits (B5) Inundation Visible on A		Thin Muck S Other	surface (C/)					X Geomorphi Shallow Ac		ı			
mundation visible on A	eriai imagery (B7)	Other							al Test (D5)				
				Sphagnum Moss (D8)									
Water Depths (inches): Surface Water:				Remarks:	HYDROLO	GY PARA	METER NOT	MET.					
Water Table:													
Saturated soil:													
Vegetation Parameter:													
Dominan	t Species	Stratum	IND	%		Non-Do	minant Species		Stratum	IND	%		
Acer rı		Tree	FAC	20									
Pinus : Liriodendro		Tree Tree	FAC FACU	15 15									
Acer rı	ubrum	Sapling	FAC	15									
Quercus Liquidambar		Sapling Sapling	FACU FAC	15 10									
Liquidambar	r styraciflua	Shrub	FAC	10									
Carpinus co Ilex o		Shrub Shrub	FAC FAC	10 5									
Vitis rotu	•	Herbaceou		5									
Microstegiun		Herbaceou		5									
Toxicodendr		Herbaceou		3									
Smilax rot	unaijoita	Vine	FAC	3									
										<u></u>			
% Dominant	species FAC or wetter:	85%					P	revalence Index:	3.2	_			
	FOR STATUS ACCORDING T	TO 2016 NATION	AL WETLAND					using all species pre	sent.	<u> </u>			
Rapid Test for Hydrophyt	ic Vegetation: ce Test >50%: X	-		Remarks:	VEGETATI	ON PARA	METER MET.	•					
	Index is ≤ 3.0 :	-											
Problematic Hydrophyt		_											
		-											
Soil Parameter:	<u> </u>	Iatrix		I		Redox Fea	tures						
Depth (inches)	Color (Moist		%	Color	r (Moist)	%	Туре	Loc		Texture			
0-20	2.5Y 5/3		95	10	YR 4/6	5	C	M	FI	NE SANDY L	.OAM		
				 									
	1	+		1									
Hydric Soil Indicators:													
Histosol (A1) Histic Epipedon (A2)		airie Redox (A lucky Mineral			Redox Dark : Depleted Dar			In	idicators for Pr	oblematic Hya	tric Soils		
Black Histic (A3)		leyed Matrix		_	Redox Depre		,		1cm Muck	(A9)			
Hydrogen Sulfide (A4)		edox (S5)		_	Marl (F10)				2cm Muck				
Stratified Layers (A5)		Matrix (S6)			Depleted Och					Vertic (F18)			
Organic Bodies (A6) 5cm Mucky Mineral (A'		rface (S7) e Below Surf	000 (88)		Iron-Mangan Umbric Surfa		(F12)			Floodplain Soi is Bright Loam			
Muck Presence (A8)		rk Surface (S9		_	Delta Ochric			•		t Material (TF:	•		
1 cm Muck (A9)	Loamy M	Mucky Minera	d (F1)	_	Reduced Ver	tic (F18)			Very Shall	low Dark Surfa			
Depleted Below Dark St		Gleyed Matrix	(F2)	_	Piedmont Flo	-			Other				
Thick Dark Surface (A1	Depleted	l Matrix (F3)		_	_Anomalous E	sright Loam	y Soils (F20)						
Restrictive Layer (If Ob.	served)			Remarks:	SOIL PARA	METER N	ОТ МЕТ.	<u> </u>					
Type:													
Depth (inches):													



Stantec /			PENDLETON PARTMENT				Section/T	'ownship/Range:		N/A		
	y/County:		VIRGINIA	BEACH			_	LRR or MLRA):		T		
•	State:		VIRGI				-	Site Latitude:		36.816431		
Inves	tigator(s):		K. PRESG 8/2/20				. Soil !	Site Longitude: Map Unit Name:		-75.97849 COPIM SILT		
	Date:		0/2/20	017				viap Unit ivanie.	115	OPINI SILI	LUAIVI	
Summary of Findings:	<u> </u>			UPLA	AND SWALE	SOUTHEA	AST OF 'BAA'	LINE.				
	c Vegetation is Present:					cumstances:		NWI Classificat		N/A		
	Hydric Soils are Present:		*		Parameters (see			Local Re		CONCAV		
	d Hydrology is Present:				Parameters (see			Landfo		DRAINAGEV	WAY	
Sampled Are Hydrology Parameter:	ea is within a Wetland:		Ацурк	cal Cimiate/i	Hydrology (see	e Kemarks).		Slope	e %:	0-3		
Нупгоюду гагашене.	Pri	mary Indicate	ors:						Secondary Indic	ators:		
		mary zimien.	ль.						il Cracks (B6)	uors.		
Surface Water (A1)		Water Stains	ed Leaves (B9))		ļ]		egetated Concav	ve Surface (P	38)	
High Water Table (A2)		Aquatic Fau]		Patterns (B10)			
Saturation (A3)		Marl Deposi				ļ]		Lines (B16)			
Water Marks (B1)			ulfide Odor (C			ļ			n Water Table (C	J2)		
Sediment Deposits (B2)	·	_	nizospheres on		s (C3)	ļ			urrows (C8)	11 (6	701	
Drift Deposits (B3) Algal Mat or Crust (B4)		_	Reduced Iron (Reduction in T		(06)	ļ	1		Visible on Aeria Stressed Plants (.'9)	
Iron Deposits (B5)		Thin Muck S		I liicu oona	(C0)	ļ			ic Position (D2)	(נוט)		
Inundation Visible on A	verial Imagery (B7)	Other	Mirace (C.,			ļ	1		quitard (D3)			
						ļ			ral Test (D5)			
							<u> </u>	Sphagnum	Moss (D8)			
Water Depths (inches):				Remarks:	HYDROLO	GY PARAN	METER NOT	MET.				
Surface Water												
Water Table												
Saturated soil Vegetation Parameter:	: >20			<u>J</u>								
v egetation rarameter.												
	nt Species	Stratum		%			minant Species		Stratum	IND	%	
Pinus Agan n		Tree	FAC	25		Camp	osis radicans		Herbaceous	FAC	3	
Acer ra Acer ra		Tree Sapling	FAC FAC	10 20					ļ		Ī	
Carpinus c	caroliniana	Sapling	FAC	5								
Acer r		Shrub	FAC	20								
Quercu Carpinus c		Shrub Shrub	FACU FAC	15 10								
Smilax ro		Herbaceou		15					ļ		Ī	
Lonicera	v	Herbaceou		5								
Smilax ro	tundifolia	Vine	FAC	10								
									ļ		Ī	
									ļ		Ī	
									ļ			
				ш						<u> </u>		
% Dominant	species FAC or wetter:	80%					P	revalence Index:	3.1			
	TOR STATUS ACCORDING		NAL WETLAND	PLANT LIST				using all species pre		·		
Rapid Test for Hydrophyt				Remarks:	VEGETATI	ION PARA	METER MET.					
	ce Test >50%: X	_										
	Index is ≤ 3.0 :	-										
Problematic Hydrophyt	ic Vegetation:	-										
Soil Parameter:												
Suli i ai anicui.	N	Matrix		T		Redox Feat	tures					
Depth (inches)	Color (Mois		%	Color	r (Moist)	%	Туре	Loc		Texture		
0-20	2.5Y 5/3	<u>"</u>	85		YR 5/4	15	C	M	SA	NDY CLAY		
	T			<u> </u>								
				Ţ								
,												
Hydric Soil Indicators:	G . D				- · - D - I	- a (Da)		т,	c D	- · · · · · · · · · · · · · · · · · · ·		-
Histosol (A1)		rairie Redox (_	Redox Dark			II	ndicators for Pro	oblematic Hy	ydric Soi	ls
Histic Epipedon (A2) Black Histic (A3)		Iucky Mineral		_	Depleted Dar		č/)	J	1 cm Muck	(40)		
Hydrogen Sulfide (A4)		Gleyed Matrix Ledox (S5)	(54)		Redox Depre Marl (F10)	28810118 (1·0 <i>)</i>]	1cm Muck 2cm Muck			
Stratified Layers (A5)		Matrix (S6)			Depleted Ocl	hric (F11)]	Reduced V			
Organic Bodies (A6)		rface (S7)		_	Iron-Mangan		(F12)	<u> </u>		Floodplain So	oils (F19	9)
5cm Mucky Mineral (A		ie Below Surf	face (S8)		Umbric Surfa		` /	•		s Bright Loar		
Muck Presence (A8)		rk Surface (S			Delta Ochric					Material (T	•	, ,
1 cm Muck (A9)	Loamy N	Mucky Minera	al (F1)		Reduced Ver	rtic (F18)			Very Shall	ow Dark Sur	face (TF	(12)
Depleted Below Dark S	urface (A Loamy C	Gleyed Matrix	ς (F2)		Piedmont Flo	oodplain Soi	ıls (F19)		Other			
Thick Dark Surface (A1	.2) Depleted	d Matrix (F3)		_	_Anomalous I	Bright Loam	y Soils (F20)					
	-			T. ,	DID							
Restrictive Layer (If Ob				Remarks:	SOIL PARA	AMETER N	OT MET.					
Type	·											



Stantec A	PARTMENT				Section/Township/Range: N/A							
	Applicant: VIR y/County:	OII VIII DE	VIRGINIA		IKI MIM	KS	_	LRR or MLRA):		T		
	State:		VIRG					Site Latitude:		36.81643	31°	
Invest	tigator(s):		B. ASH				-	Site Longitude:		-75.9784	9°	
	Date:		10/17/	2017			Soil l	Map Unit Name:	ACR	EDALE SIL	LT LOAM	
Summary of Findings:				WE	TI AND NOI	DTHEAST	OF FLAG 'BA	W 6'				
	c Vegetation is Present:	X		WE		cumstances:		NWI Classifica	tion:	N/A		
	lydric Soils are Present:	X		Disturbed P	arameters (se			Local Re		NONE		
	d Hydrology is Present:	X	F	Problematic P	arameters (se	e Remarks):		Landf		FLAT		
	a is within a Wetland:	X			Hydrology (se			Slop		0-1		
Hydrology Parameter:			71		J							
-	Prin	nary Indicat	tors:						Secondary Indic	ators:		
									oil Cracks (B6)			
Surface Water (A1)			ed Leaves (B9))					egetated Concav	ve Surface (I	B8)	
High Water Table (A2)		Aquatic Fau	. ,						Patterns (B10)			
Saturation (A3)		Marl Depos							Lines (B16)	~~:		
Water Marks (B1)			ulfide Odor (C		(00)		Dry-Season Water Table (C2)					
Sediment Deposits (B2)			hizospheres on		s (C3)				Surrows (C8)	1.7	Go.	
Drift Deposits (B3)			Reduced Iron		(CC)				Visible on Aeria		(29)	
Algal Mat or Crust (B4)			Reduction in 7	i iiied Soiis ((0)				Stressed Plants ic Position (D2)			
Iron Deposits (B5) Inundation Visible on A		Other	Surface (C7)						quitard (D3)			
Indidation visible on A	lenai imagery (67)	Other						X FAC-Neut				
Water Depths (inches):				Remarks:	HYDROLO	GY PARA	Sphagnum Moss (D8) METER MET.					
Surface Water:				remarks.	HIDROLO	/G1 1/11k21	WILLER WILL	-				
Water Table:												
Saturated soil:												
Vegetation Parameter:				-								
Dominan		Stratum		25			minant Species	5	Stratum	IND FAC	10	
Liquidambar Quercus		Tree Tree	FAC FACW	15			lago rugosa ous argutus		Herbaceous Herbaceous	FAC	5	
Nyssa sy		Sapling	FAC	15		Ruo	rus urguius		Tierbaccous	TAC	ı	
Liquidambar		Sapling	FAC	5							1	
Acer ri		Sapling	FAC	5							1	
Vaccinium c Liquidambar		Shrub Shrub	FACW FAC	10 5							1	
Clethra c		Shrub	FACW	5							1	
Microstegiun		Herbaceou		40							1	
Smilax rot		Vine	FAC	70							1	
	J										1	
											1	
											1	
											1	
											1	
											1	
											1	
											1	
	species FAC or wetter:							revalence Index:		-		
Rapid Test for Hydrophyt	FOR STATUS ACCORDING T	O 2016 NATIO	NAL WEILAND	Remarks:	VECETAT	TON DADA	METER MET	using all species pr	esent.			
	ce Test >50%: X			Kemarks.	VEGETAT	IONTAKA	MIETEK MET	•				
	Index is ≤ 3.0 : X											
Problematic Hydrophyt												
1 Toolemade Trydrophyd	ic vegetation.											
Soil Parameter:												
	M	latrix				Redox Fea	tures					
Depth (inches)	Color (Moist	:)	%	Color	(Moist)	%	Type	Loc		Texture		
0-5	10YR 4/1		100							NE SANDY		
5-20	10YR 6/1		80		R 5/6	15	С	M	FII	NE SANDY	LOAM	
				10Y	'R 5/8	5	С	PL				
									ļ			
II 1: C :II P												
Hydric Soil Indicators:	G . B	· · · · · · · · · · · · · · · · · · ·	(110)		D 1 D 1	0.6.006		- T		1.1		
Histosol (A1)		iirie Redox			Redox Dark			1	ndicators for Pr	obiematic H	yarıc Sous	
Histic Epipedon (A2) Black Histic (A3)		ucky Minera			Depleted Da		F/)		1 am Muals	(40)		
Hydrogen Sulfide (A4)	Sandy Re	eyed Matrix	(34)	_	Redox Depre Marl (F10)	essions (1.0)			1cm Muck 2cm Muck			
Stratified Layers (A5)		Matrix (S6)			Depleted Oc	shrie (E11)				Vertic (F18)		
Organic Bodies (A6)	Dark Sur				Iron-Mangar		(F12)			Floodplain S	Soils (F10)	
			face (CO)		_		(1.12)			-		
5cm Mucky Mineral (A' Muck Presence (A8)		e Below Sur k Surface (S			Umbric Surf Delta Ochric		Anomalous Bright Loamy Soils (F20) Red Parent Material (TF2)					
1 cm Muck (A9)		к Surrace (S Iucky Miner			Reduced Ve						rface (TF12)	
		leyed Matri			_		ile (F10)		Other	ow Dark Sul	11400 (11-12)	
Depleted Below Dark S Thick Dark Surface (A1		•			Piedmont Flo Anomalous	-	us (F19) ny Soils (F20)		omer			
Inck Dark Surface (Al	z, hopicieu		,		- 11101111110115	2.15m 1.0diii	., 50115 (1 20)					
Restrictive Layer (If Ob	served)			Remarks:	SOIL PAR	AMETER N	ИЕТ.	<u> </u>				
Туре:												
Depth (inches):												



Stantec		MR CAMP PEN GINIA DEPAI										
	y/County:		IRGINIA		AKI AITAI	Ko		(LRR or MLRA):		T		
C.I.	State:	<u> </u>	VIRG				Buoregion	Site Latitude:		36.81643	1°	
Inves	tigator(s):		B. ASF					Site Longitude:		-75.9784		
	Date:		10/17/	2017			Soil	Map Unit Name:	ACI	REDALE SII	T LOAM	
Summary of Findings:					LIPL AND E	FAST OF FI	LAG 'BAK-8'.					
• •	c Vegetation is Present:	X				cumstances:		NWI Classificat	ion:	N/A		
	lydric Soils are Present:	X		Disturbed l	Parameters (se	-		Local Re		NONE		
	d Hydrology is Present:		F		Parameters (se			Landfo		FLAT		
Sampled Are	ea is within a Wetland:				Hydrology (se			Slope	%:	0-1		
Hydrology Parameter:												
	Prii	mary Indicators:						S	econdary Indic	cators:		
									l Cracks (B6)			
Surface Water (A1)		Water Stained L)				·	egetated Conca	ve Surface (l	38)	
High Water Table (A2)		Aquatic Fauna (atterns (B10)			
Saturation (A3) Water Marks (B1)		Marl Deposits (11)			Moss Trim Lines (B16) Dry-Season Water Table (C2)					
Sediment Deposits (B2		Hydrogen Sulfic Oxidized Rhizo			e (C3)			Crayfish B		C2)		
Drift Deposits (B3)		Presence of Red		-	s (C3)				Visible on Aeri	al Imagery ((20)	
Algal Mat or Crust (B4)	Recent Iron Rec			(C6)				Stressed Plants		/	
Iron Deposits (B5)		Thin Muck Surf	ace (C7)					X Geomorphi	c Position (D2))		
Inundation Visible on A	Aerial Imagery (B7)	Other					Shallow Aquitard (D3)					
									al Test (D5)			
				T				Sphagnum	Moss (D8)			
Water Depths (inches):				Remarks:	HYDROLO	OGY PARAN	METER NOT	MET.				
Surface Water Water Table												
Saturated soil												
Vegetation Parameter:	. >20			l								
	t Species	Stratum	IND	%			minant Specie	s	Stratum	IND	%	
	taeda ıs alba	Tree Tree	FAC FACU	30 20			er rubrum ius taeda		Tree Shrub	FAC FAC	10 5	
Liquidamba		Sapling	FAC	15		1 111	mas accar					
Acer r		Sapling	FAC	10								
Clethra Vaccinium	alnifolia corymbosum	Shrub Shrub	FACW FACW	25 15								
Pteridium		Herbaceous	FACU	15								
Microstegiu		Herbaceous	FAC	5								
Smilax ro		Herbaceous	FAC	5								
Lonicera	• •	Vine	FACU	10								
Smilax ro	tundifolia	Vine	FAC	10								
		1										
% Dominant	species FAC or wetter:	73%					I	Prevalence Index:	3.0	_		
NOTE: SPECIES INDICA	TOR STATUS ACCORDING	TO 2016 NATIONAL	WETLAND I	PLANT LIST			Calculated	d using all species pre	sent.			
Rapid Test for Hydrophy		<u>-</u>		Remarks:	VEGETAT	ION PARAN	METER MET	Γ.				
	ce Test >50%: X	<u>-</u>										
	Index is ≤ 3.0:	-										
Problematic Hydrophy	ic Vegetation:	<u>-</u>										
Soil Parameter:												
	N	Iatrix				Redox Feat	tures					
Depth (inches)	Color (Mois	t)	%	Color	(Moist)	%	Type	Loc		Texture	e	
0-3	10YR 3/2		100							LOAM	í	
3-20	10YR 6/1		90	10	YR 5/8	10	C	M		CLAY LO	AM	
** ** ** ** **												
Hydric Soil Indicators:	C + P	· · · D 1 /41			D.I. D.I.	C C (TC)		F .	P C D	11 .: 11	1 1 : 0 :1	
Histosol (A1) Histic Epipedon (A2)		airie Redox (A16		_	_	Surface (F6) ark Surface (F		In	dicators for Pr	овіетанс н	yarıc Sous	
Black Histic (A3)		lucky Mineral (S leyed Matrix (S4		_	Redox Depre		-1)		1cm Muck	· (AQ)		
Hydrogen Sulfide (A4)		edox (S5)	•)		Marl (F10)	essions (1.0)		-	2cm Muck			
Stratified Layers (A5)		Matrix (S6)		_	Depleted Oc	hric (F11)		-		Vertic (F18)		
Organic Bodies (A6)		rface (S7)		_	_	nese Masses ((F12)			Floodplain S	oils (F19)	
5cm Mucky Mineral (A		e Below Surface	(S8)		Umbric Surf			•		s Bright Loa		20)
Muck Presence (A8)		rk Surface (S9)		_	Delta Ochric					t Material (T		•
1 cm Muck (A9)	Loamy N	Mucky Mineral (I	F1)		Reduced Ve	rtic (F18)			Very Shall	low Dark Su	rface (TF12)	()
Depleted Below Dark S	urface (A Loamy C	Gleyed Matrix (F	2)	_	Piedmont Fl	oodplain Soil	ls (F19)		Other			
Thick Dark Surface (A	(2) X Depleted	l Matrix (F3)		Anomalous Bright Loamy Soils (F20)								
Restrictive Layer (If Ol				Remarks:	SOIL PARA	AMETER M	IET.					
Type Depth (inches)												
Depui (inches)	<u> </u>			I								



Stantec A			Γ OF MILITARY AFFA		Section/Township/Range: N/A			N/A		
	y/County:		A BEACH	1110		RR or MLRA):		T		
	State:	VIRC	JINIA			Site Latitude:		36.816431°		
Invest	tigator(s):	B. AS				Site Longitude:		-75.97849°		
	Date:	10/17	//2017		Soil M	Iap Unit Name:	ACR	EDALE SILT LOA	м	
Summary of Findings:			WETLAND	NORTH OF	FLAG 'BAI-5'.					
	c Vegetation is Present: X			rcumstances:		NWI Classifica	tion:	N/A		
Н	ydric Soils are Present: X		Disturbed Parameters (s	ee Remarks):		Local Re	elief:	NONE		
Wetland	d Hydrology is Present: X		Problematic Parameters (s	ee Remarks):		Landf	orm:	FLAT		
•	a is within a Wetland: X	Atyp	oical Climate/Hydrology (s	ee Remarks):		Slop	e %:	0-1		
Hydrology Parameter:	n	7.					a , , , ,			
	Primary I	ndicators:					Secondary Indic oil Cracks (B6)	ators:		
Surface Water (A1)	Water	Stained Leaves (B	9)		-		egetated Concav	ve Surface (B8)		
High Water Table (A2)		ic Fauna (B13)	,		-		Patterns (B10)	,		
Saturation (A3)	Marl I	Deposits (B15)			_	Moss Trin	Lines (B16)			
Water Marks (B1)		gen Sulfide Odor (Dry-Season Water Table (C2)					
Sediment Deposits (B2)		•	n Living Roots (C3)		Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)					
Drift Deposits (B3) Algal Mat or Crust (B4)		ice of Reduced Iror t Iron Reduction in			-					
Iron Deposits (B5)		Muck Surface (C7)	Tinea Bons (Co)		Stunted or Stressed Plants (D1) X Geomorphic Position (D2)					
Inundation Visible on A					Shallow Aquitard (D3)					
					<u>-</u>	X FAC-Neut				
						Sphagnum	Moss (D8)			
Water Depths (inches):			Remarks: HYDROL	OGY PARA	METER MET.					
Surface Water: Water Table:										
Saturated soil:										
Vegetation Parameter:			1							
										
Dominan Liquidambar		ratum IND Free FAC	15		minant Species		Stratum Herbaceous	IND % FAC 15	-	
Quercus		Tree FACW	15		rotundifolia		Herbaceous	FAC 10		
Liquidambar		pling FAC	10		sis radicans		Herbaceous	FAC 10		
Liquidambar Acer ri		hrub FAC hrub FAC	20	Jun	cus effusus		Herbaceous	OBL 5		
Microstegiui		paceous FAC	30							
Boehmeria	cylindrica Herb	paceous FACW	20							
	l .	l .						<u> </u>	_	
% Dominant	species FAC or wetter: 1	00%			Pre	evalence Index:	alence Index: 2.7			
	FOR STATUS ACCORDING TO 2016	NATIONAL WETLAND	_			sing all species pr	esent.			
Rapid Test for Hydrophyt			Remarks: VEGETA	TION PARA	METER MET.					
	ce Test >50%: X Index is < 3.0: X									
Problematic Hydrophyt										
Troblematic Trydrophryt	ic vegetation.									
Soil Parameter:			L.							
	Matrix			Redox Fea	tures					
Depth (inches)	Color (Moist)	%	Color (Moist)	%	Type	Loc		Texture		
0-1	10YR 2/1	100	7.5WD 616	-			ļ	LOAM		
1-7	2.5Y 5/1	95	7.5YR 6/6 7.5YR 5/8	3 2	C C	M PL		CLAY LOAM		
7-20	2.5Y 6/1	93	10YR 6/6	7	С	M M		CLAY LOAM		
7-20	2.31 0/1	73	1011000	,	C	IVI		CLAT LOAM		
Hydric Soil Indicators:	1		1	1	l		ı			
Histosol (A1)	Coast Prairie R	edox (A16)	Redox Darl	k Surface (F6))	1	ndicators for Pr	oblematic Hydric Se	oils	
Histic Epipedon (A2)	Sandy Mucky N	Mineral (S1)	Depleted D	ark Surface (l	F7)					
Black Histic (A3)	Sandy Gleyed I			ressions (F8)			1cm Muck			
Hydrogen Sulfide (A4)	Sandy Redox (S		Marl (F10)				2cm Muck			
Stratified Layers (A5)	Stripped Matrix			chric (F11) anese Masses	(E12)		Reduced V	'ertic (F18) Floodplain Soils (F1	10)	
Organic Bodies (A6) 5cm Mucky Mineral (A	Dark Surface (S 7) Polyvalue Belo		Umbric Sur		(1.12)			s Bright Loamy Soil		
Muck Presence (A8)	Thin Dark Surf		Delta Ochr					t Material (TF2)	(1 20)	
1 cm Muck (A9)	Loamy Mucky		Reduced V					ow Dark Surface (T	F12)	
Depleted Below Dark S				loodplain Soi	ls (F19)		Other			
Thick Dark Surface (A1	2) X Depleted Matri	x (F3)	Anomalous Bright Loamy Soils (F20)							
Restrictive Layer (If Ob.			Remarks: SOIL PAR	RAMETER N	IET.					
Type: Depth (inches):			1							
_ 5ptn (menes).			1							

Stantec				ETON WETLAND DELINEATION ENT OF MILITARY AFFAIRS								
	Applicant: VIR ty/County:	GINIA DEP	VIRGINIA		ARY AFFAII	RS		Township/Range: LRR or MLRA):		N/A T		
Ci	State:		VIRGINIA				Subregion (Site Latitude:		36.816431°		
Inve	stigator(s):		B. ASI					Site Longitude:		-75.97849°		
	Date:		10/17/	2017			Soil	Map Unit Name:	ACR	REDALE SILT LO	OAM	
C PER II					TIDE AND E	LOT OF FI	1 G ID 1 G 501					
Summary of Findings:	ic Vegetation is Present:	X				cumstances:	AG 'BAS-50'.	NWI Classificat	ion:	N/A		
	Hydric Soils are Present:	X		Disturbed 1	Parameters (see			Local Re		NONE		
	nd Hydrology is Present:		I		Parameters (see			Landfo		FLAT		
	ea is within a Wetland:				Hydrology (see			Slope		0-2		
Hydrology Parameter:												
	Pris	nary Indicato	ors:						econdary Indic	ators:		
C C W. (A1)		W . C. :	1.1 (DO	`					l Cracks (B6)	C C (DO)		
Surface Water (A1) High Water Table (A2)		Water Staine Aquatic Faun)					egetated Conca atterns (B10)	ve Surface (B8)		
Saturation (A3)	, <u> </u>	Marl Deposit					Moss Trim Lines (B16)					
Water Marks (B1)	-	Hydrogen Su		21)			Dry-Season Water Table (C2)					
Sediment Deposits (B2	2)	Oxidized Rhi	izospheres on	Living Root	ıs (C3)		Crayfish Burrows (C8)					
Drift Deposits (B3)		Presence of I					Saturation Visible on Aerial Imagery (C9)					
Algal Mat or Crust (B4	<u> </u>	Recent Iron I		Tilled Soils	(C6)		Stunted or Stressed Plants (D1) X Geomorphic Position (D2)					
Iron Deposits (B5) Inundation Visible on	Aerial Imagery (R7)	Thin Muck S Other	uriace (C7)						c Position (D2) juitard (D3)			
mundation visible on	Acriai imagery (B7)	Other							al Test (D5)			
Water Depths (inches):				Remarks:	HYDROLO	GY PARAN	METER NOT	MET.				
Surface Wate												
Water Table												
Saturated soi Vegetation Parameter:	1: >20			<u>l</u>								
vegetation i arameter.												
	nt Species	IND	%			minant Species		Stratum IND %				
	rubrum serotina	Tree Sapling	FAC FACU	15 20		Gelsemiu	m semperviren	S	Herbaceous	FAC 5		
	rubrum	Sapling	FAC	5								
	serotina	Shrub	FACU	5								
	rubrum us rubra	Shrub Shrub	FAC FACU	5 5								
Liquidambe	ar styraciflua	Shrub	FAC	5								
	otundifolia	Herbaceous		15								
	tundifolia c glauca	Herbaceous Herbaceous		10 10								
Smittas	п дишси	Herbaceous	TAC	10								
										L		
% Dominar	t species FAC or wetter:	70%					P	revalence Index:	3.3			
NOTE: SPECIES INDIC.	ATOR STATUS ACCORDING	ΓΟ 2016 NATION	AL WETLAND	PLANT LIST			Calculated	l using all species pre	sent.	<u> </u>		
Rapid Test for Hydrophy				Remarks:	VEGETATI	ION PARA!	METER MET					
	nce Test >50%: X	•										
	Index is ≤ 3.0:											
Problematic Hydrophy	tic Vegetation:											
Soil Parameter:												
	N	Iatrix				Redox Feat	tures					
Depth (inches)	Color (Mois	t)	%	Color	r (Moist)	%	Type	Loc		Texture		
0-3	7.5YR 3/1		100							NE SANDY LOA		
3-17	2.5Y 5/2		97		YR 5/6	3	C	M		SANDY CLAY I		
17-20	2.5Y 5/1		96		YR 4/8	2	С	PL	FINE	SANDY CLAY I	LOAM	
				2.5	YR 4/6	2	С	M				
Hydric Soil Indicators:	1			1								
Histosol (A1)	Coast Pr	airie Redox (A	A16)		Redox Dark	Surface (F6))	Is	dicators for Pr	oblematic Hydric	c Soils	
Histic Epipedon (A2)		lucky Mineral		_	Depleted Da							
Black Histic (A3)		leyed Matrix			Redox Depre				1cm Muck	(A9)		
Hydrogen Sulfide (A4)		edox (S5)		_	Marl (F10)				2cm Muck			
Stratified Layers (A5)		Matrix (S6)		_	_Depleted Oc		(T10)			Vertic (F18)	(F10)	
Organic Bodies (A6)		face (S7)	(CO)	_	Iron-Mangan		(F12)			Floodplain Soils		
5cm Mucky Mineral (A Muck Presence (A8)		e Below Surfa k Surface (S9			Umbric Surfa Delta Ochric					s Bright Loamy S t Material (TF2)	лон э (Г20)	
1 cm Muck (A9)		Aucky Minera		Reduced Vertic (F18)								
Depleted Below Dark		Bleyed Matrix		Piedmont Floodplain Soils (F19) Other						•		
Thick Dark Surface (A		•		-	Anomalous I							
	-											
Restrictive Layer (If O				Remarks:	SOIL PARA	AMETER M	IET.					
Type Depth (inches												
Depui (inches	<i>J</i> •											

Stante	C
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Stantec A	·		ETON WETLAND DELINEATION ENT OF MILITARY AFFAIRS			DN Section/Township/Range: N/A						
City	//County:		VIRGINIA				Subregion (LF			T		
T	State:		VIRG				_	Site Latitude:		36.81643		
Invest	igator(s): Date:		B. ASI 10/17/				_	ite Longitude:	UDORTHENT	-75.9784		IFY
G 877 11	Date		10/17/	2017			_	ap Cint Ivaine.	ODORTHEN	IS-ORDAIN	LAIVE COM	LLA
Summary of Findings:	Vegetation is Present:	X			Normal Circ		FLAG 'BAJ-3'.	WI Classifica	tion:	N/A		
	ydric Soils are Present:	X		Disturbed I	Parameters (see			Local Re		NONE		_
	d Hydrology is Present:	X	I		Parameters (see			Landf		FLAT		_
Sampled Are	a is within a Wetland:	X	Atypi	cal Climate/	Hydrology (see	Remarks):		Slop	e %:	0-1		
Hydrology Parameter:							•					
	Prim	ary Indicat	tors:				ļ		Secondary Indic il Cracks (B6)	ators:		
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	<u></u>	Aquatic Fau Marl Depos					- - -	Sparsely V Drainage I Moss Trim	regetated Concaveratterns (B10) Lines (B16) Number Table (Concaveration of the Concaveration		B8)	
Sediment Deposits (B2)			nizospheres on		rs (C3)		-		urrows (C8)	-2)		
Drift Deposits (B3)			Reduced Iron	-	. ()		_		Visible on Aeria	al Imagery (C9)	
Algal Mat or Crust (B4)	I	Recent Iron	Reduction in	Tilled Soils	(C6)				Stressed Plants			
Iron Deposits (B5)			Surface (C7)				_		ic Position (D2)			
Inundation Visible on A	erial Imagery (B7)(Other					-	Shallow A X FAC-Neut	quitard (D3)			
							-		Moss (D8)			
Water Depths (inches):				Remarks:	HYDROLO!	GY PARA	AMETER MET.					
Surface Water:				remarks	III DII OLO	01111111	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					
Water Table:												
Saturated soil:	>20											
Vegetation Parameter:												
Dominan	t Canadas	Stratum	IND	%		Non Do	minant Species		Stratum	IND	%	
		FAC	5			ous argutus		Herbaceous	FAC	10		
Liquidambar	Liquidambar styraciflua Shrub F Phragmites australis Herbaceous FA					Jun	cus effusus		Herbaceous	OBL	5	
			40		Solida	ago altissima		Herbaceous	FACU	5		
Microstegiur	n vimineum	неграсеоц	ıs FAC	30							1	
											1	
											1	
											1	
											1	
											1	
											1	
											1	
											1	
											1	
											1	
											1	
											1	
	*								•			
% Dominant	species FAC or wetter:	100%					Pre	valence Index:	2.6	_		
	FOR STATUS ACCORDING TO) 2016 NATIO	NAL WETLAND	PLANT LIST				ing all species pr	esent.			
Rapid Test for Hydrophyt				Remarks:	VEGETATI	ON PARA	METER MET.					
	ce Test >50%: X											
	Index is ≤ 3.0 : X											
Problematic Hydrophyt	ic Vegetation:											
Soil Parameter:												
Son I arameter.	M	atrix		1		Redox Fea	turos					
Depth (inches)	Color (Moist)		%	Color	r (Moist)	%	Type	Loc		Textur	e	كسر
0-6	5Y 4/1		92		YR 5/6	5	C	M	FINE		LAY LOAM	
	51 7/1		,,,		YR 6/6	3	C	M	INC		20/11/1	
6-12	2.5Y 6/2		90		YR 5/6	10	C	M	FINE	SANDY CI	LAY LOAM	
12-20	10YR 3/1		83		5Y 6/1	15	INCLUSIONS	M	i	CLAY LO		
					YR 4/8	2	С	PL				
Hydric Soil Indicators:	•	•							•			
Histosol (A1)	Coast Prai	irie Redox ((A16)		Redox Dark S	Surface (F6)	1	ndicators for Pro	oblematic H	lydric Soils	
Histic Epipedon (A2)	Sandy Mu	cky Minera	al (S1)		Depleted Dar	k Surface (F7)					
Black Histic (A3)	Sandy Gle	yed Matrix	(S4)	_	Redox Depre	ssions (F8)			1cm Muck	(A9)		
Hydrogen Sulfide (A4)	Sandy Rec	dox (S5)		_	Marl (F10)				2cm Muck	(A10)		
Stratified Layers (A5)	Stripped N	Aatrix (S6)		_	Depleted Och	ric (F11)			Reduced V	ertic (F18)		
Organic Bodies (A6)	Dark Surf	ace (S7)		_	Iron-Mangane	ese Masses	(F12)			Floodplain S		
5cm Mucky Mineral (A'	7) Polyvalue	Below Sur	face (S8)	_	Umbric Surfa	ice (F13)			Anomalous	s Bright Loa	amy Soils (F20)
Muck Presence (A8)		Surface (S		_	Delta Ochric					t Material (T		
1 cm Muck (A9)		ucky Miner			Reduced Ver				 ·	ow Dark Su	ırface (TF12)	
Depleted Below Dark St		eyed Matri			Piedmont Flo	-			Other			
Thick Dark Surface (A1	2) X Depleted	Matrix (F3))		_Anomalous B	Bright Loam	ny Soils (F20)					
				I								
Restrictive Layer (If Ob.				Remarks:	SOIL PARA	METER N	AET.					
Type:												
Depth (inches):												



Stantec A			EPARTMENT				Section/To	ownship/Range:		N/A		
	y/County:	OH VIZ DI	VIRGINIA		111711	KS		RR or MLRA):		T		
0.1.3	State:		VIRG				Suoregion (2	Site Latitude:		36.816431°		
Invest	tigator(s):		B. ASI				•	Site Longitude:		-75.97849°		
	Date:		10/17/				•	Iap Unit Name:		REDALE SILT LO	AM	
							•	-				
Summary of Findings:	W. C. D. C.	X 7		V			LAG 'BAH-32'			NT/A		
, , ,	C Vegetation is Present:	X		Distante d D		cumstances:		NWI Classificat		N/A NONE		
	lydric Soils are Present:	X	,	Problematic P	arameters (se			Local Re Landfo		NONE FLAT		
	d Hydrology is Present: a is within a Wetland:	X		cal Climate/F			—	Slope		0-1		
Hydrology Parameter:	a is within a vvenanti.	Λ	Atypi	cai Cilliate/F	tydrology (se	e Kemarks).		зюр	e 70.	0-1		
Trydrology 1 arameter:	Prin	ary Indica	itors:					S	Secondary Indi	cators:		
	<u> </u>								il Cracks (B6)			
Surface Water (A1)	X	Water Stair	ned Leaves (B9))				Sparsely V	egetated Conca	ive Surface (B8)		
High Water Table (A2)	<u> </u>	Aquatic Fa	una (B13)					Drainage P	atterns (B10)			
Saturation (A3)	<u> </u>	Marl Depo	sits (B15)				Moss Trim Lines (B16)					
Water Marks (B1)		Hydrogen S	Sulfide Odor (C	(1)			Dry-Season Water Table (C2)					
Sediment Deposits (B2)			thizospheres on		s (C3)			X Crayfish B				
Drift Deposits (B3)			f Reduced Iron		~ .		Saturation Visible on Aerial Imagery (C9)					
Algal Mat or Crust (B4)			Reduction in	Tilled Soils (C6)				Stressed Plants			
Iron Deposits (B5)			Surface (C7)					X Geomorphi)		
Inundation Visible on A	eriai imagery (B/)	Other						X FAC-Neutr	quitard (D3)			
								Sphagnum				
Water Depths (inches):				Remarks:	HYDROLO	GY PARA!	METER MET.	Spriagram	111033 (20)			
Surface Water:				remarks.	IIIDROLO	701111111	VIETER VIET.					
Water Table:												
Saturated soil:												
Vegetation Parameter:												
Dominan		Stratun		%		Non-Do	minant Species		Stratum	IND %	4	
Quercu Quercus l		Tree Tree	FACU FACW	30 15								
Nyssa sy		Sapling		10								
Acer ri		Sapling		10								
Liquidambar		Sapling		5								
Liquidambar Clethra a		Shrub Shrub		10 5								
Solidago		Herbaceo		5								
Microstegiun	n vimineum	Herbaceo	ous FAC	3								
Carex	lurida	Herbaceo	ous OBL	2								
Smilax rot	tundifolia	Vine	FAC	15								
0/ Dominant	species EAC or wetter	91%					D.	evalence Index:	2.0			
	species FAC or wetter: FOR STATUS ACCORDING T		ONAL WETLAND	PLANT LIST				using all species pre	3.0	-		
Rapid Test for Hydrophyt				Remarks:	VEGETAT	ION PARA	METER MET.	8				
1	ce Test >50%: X											
Prevalence l	Index is ≤ 3.0 : X											
Problematic Hydrophyt	ic Vegetation:											
Soil Parameter:												
	M	atrix				Redox Fea	tures					
Depth (inches)	Color (Moist)	%	Color	(Moist)	%	Type	Loc		Texture		
0-2	10YR 2/1		100							LOAM		
2-10	2.5Y 6/1		100							CLAY LOAM		
10-20	2.5Y 6/1		85	10Y	R 5/6	15	С	M		CLAY LOAM		
Hydric Soil Indicators:												
Histosol (A1)		irie Redox			_	Surface (F6		In	ndicators for P	roblematic Hydric	Soils	
Histic Epipedon (A2)		ucky Miner			-	ark Surface (l	F7)					
Black Histic (A3)		eyed Matri	x (S4)		Redox Depr	essions (F8)			1cm Mucl			
Hydrogen Sulfide (A4)	Sandy Re				Marl (F10)	shein (ELL)			2cm Mucl			
Stratified Layers (A5)		Matrix (S6))		Depleted Oc		(E12)			Vertic (F18)	E10)	
Organic Bodies (A6)	Dark Sur		c (CO)		_	nese Masses	(F12)			Floodplain Soils (F		
5cm Mucky Mineral (A'		Below Su		-	Umbric Surf					is Bright Loamy So	nis (F20)	
Muck Presence (A8)		k Surface (S lucky Mine			Delta Ochric Reduced Ve					nt Material (TF2) low Dark Surface ((TE12)	
1 cm Muck (A9)		lucky Mine leyed Matr			-		le (F10)		Other	iow Dark Sufface ((11.12)	
Depleted Below Dark S Thick Dark Surface (A1		-		_	_	loodplain Soi Bright Loam			Ouler			
IIICK Dark Surface (Al	z, <u>A</u> Depleted	(1'3	,	Anomalous Bright Loamy Soils (F20)								
Restrictive Layer (If Ob	served)			Remarks:	SOIL PAR	AMETER M	IET.	+				
Type:							-					
Depth (inches):			·									

	Sta	ntec
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Stantec A												
	//County:		VIRGINIA				-	LRR or MLRA):		T		
	State:		VIRG				-	Site Latitude:		36.816431°		
Invest	rigator(s):		B. ASI					Site Longitude:		-75.97849°		
	Date:		10/17/	/2017			Soil N	Map Unit Name:	AC	REDALE SILT LOA	M	
Summary of Findings:					UPLAND W	EST OF FI	LAG 'BAE-10'.					
Hydrophytic	Vegetation is Present:	X			Normal Circ	cumstances:	X	NWI Classificat	tion:	N/A		
	ydric Soils are Present:				Parameters (see			Local Re		NONE		
	d Hydrology is Present:				Parameters (see			Landfo		FLAT		
•	a is within a Wetland:		Atyp	ical Climate	Hydrology (see	e Remarks):		Slope	e %:	0-1		
Hydrology Parameter:	Pri	mary Indicat	ors:						Secondary Indi	icators:		
	170	nary maicui	075.						il Cracks (B6)	cutors.		
Surface Water (A1)		Water Stain	ed Leaves (B9))						ave Surface (B8)		
High Water Table (A2)		Aquatic Fau	na (B13)					Drainage P	atterns (B10)			
Saturation (A3)		Marl Deposi		~					Lines (B16)			
Water Marks (B1) Sediment Deposits (B2)			ulfide Odor (C nizospheres on		to (C2)				n Water Table urrows (C8)	(C2)		
Drift Deposits (B3)		_	Reduced Iron		is (C3)					ial Imagery (C9)		
Algal Mat or Crust (B4)		_	Reduction in		(C6)				Stressed Plants			
Iron Deposits (B5)		Thin Muck	Surface (C7)					Geomorphi	ic Position (D2)		
Inundation Visible on A	erial Imagery (B7)	Other							quitard (D3)			
									ral Test (D5)			
Water Depths (inches):				Remarks:	HVDDOLO	CV DADA	METER NOT	Sphagnum	Moss (D8)			
Surface Water:				Kemarks.	HIDKOLO	GIFAKA	WIETER NOT	WIE I.				
Water Table:												
Saturated soil:	>20											
Vegetation Parameter:												
Dominan	t Snecies	Stratum	IND	%		Non-Do	minant Species		Stratum	IND %	1	
Pinus		Tree	FAC	35			sa sylvatica		Tree	FAC 15	1	
Liquidambar	· styraciflua	Tree	FAC	30		-	-					
Acer ri Nyssa sy		Sapling Sapling	FAC FAC	20 15								
Pteridium (Herbaceou		10								
Smilax rot	undifolia	Vine	FAC	15								
		ı								_	1	
	species FAC or wetter:	83%					P	revalence Index:	3.1	_		
	FOR STATUS ACCORDING	TO 2016 NATIO	NAL WETLAND					using all species pre	esent.			
Rapid Test for Hydrophyt		-		Remarks:	VEGETATI	ION PARA	METER MET.	•				
	ce Test >50%: X Index is < 3.0:	-										
Problematic Hydrophyt		-										
1. 1. 501cmane 11yaropnyt		-										
Soil Parameter:												
		1atrix				Redox Fea	tures					
Depth (inches)	Color (Mois	t)	%	Colo	r (Moist)	%	Type	Loc		Texture		
0-20	10YR 6/3		100	1					F	INE SANDY LOAM		
		-		 		1						
		+		† 		 						
				1		1						
Hydric Soil Indicators:		•		•		•		•				
Histosol (A1)	Coast Pr	airie Redox ((A16)		Redox Dark	Surface (F6)	In	ndicators for P	roblematic Hydric So	oils	
Histic Epipedon (A2)		lucky Minera		_	Depleted Da		F7)					
Black Histic (A3)		leyed Matrix	(S4)		Redox Depre	essions (F8)			1cm Muc			
Hydrogen Sulfide (A4) Stratified Lavers (A5)		edox (S5)		_	Marl (F10) Depleted Oc	hric (E11)			2cm Muc	k (A10) Vertic (F18)		
Stratified Layers (A5) Organic Bodies (A6)		Matrix (S6) rface (S7)		_	Iron-Mangan		(F12)			Floodplain Soils (F1	9)	
5cm Mucky Mineral (A		e Below Sur	face (S8)	_	Umbric Surf		()			us Bright Loamy Soil		
Muck Presence (A8)		rk Surface (S		Delta Ochric (F17) Delta Ochric (F17) Red Parent Material (TF2)						ν/		
1 cm Muck (A9)		Mucky Miner		Reduced Vertic (F18) Very Shallow Dark Surface (TF12)						F12)		
Depleted Below Dark S		Gleyed Matrix			Piedmont Flo				Other			
Thick Dark Surface (A1	2) Depleted	l Matrix (F3)		_	Anomalous I	Bright Loam	y Soils (F20)					
n	7)			In ·	CON P. T	A A E CONTROL	IOT MET					
Restrictive Layer (If Ob. Type:				Remarks:	SOIL PARA	AMETER N	OT MET.					
Depth (inches):												
1												



Cit Inves Summary of Findings: Hydrophyti F Wetlan	Applicant: VIRGI y/County: State: bitigator(s): Date: C Vegetation is Present: Hydric Soils are Present: d Hydrology is Present: ea is within a Wetland: Priman	VIF B. A 10/	NIA BEACH RGINIA SHLEY 17/2017 Disturbed Problematic ypical Climate/	ARY AFFAIR	DUTH OF I umstances: Remarks): Remarks):		N/A T 36.816431° -75.97849° REDALE SILT LO N/A CONCAVE DRAINAGEWAY 0-1 cators:			
Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on A	Ox Pro Re Th	ydrogen Sulfide Odor xidized Rhizospheres resence of Reduced Ir ecent Iron Reduction nin Muck Surface (C7 ther	on Living Roo on (C4) in Tilled Soils			-	Crayfish Bu Saturation V	risible on Aeria tressed Plants Position (D2) nitard (D3) I Test (D5)	al Imagery (C9) (D1)	
Water Depths (inches):			Remarks:	HYDROLOG	GY PARAN	METER MET.				
Surface Water										
Water Table										
Saturated soil	: >20									
Vegetation Parameter:										
Dominar	nt Species	Stratum IND	%		Non-Dor	minant Species		Stratum	IND %	コ
	r styraciflua	Tree FAC			11011 2501	пини престе		Structure	1.12 /0	┪
	r styraciflua	Sapling FAC								
	ubrum	Shrub FAC								
Osmunda	spectabilis I	Herbaceous OBI	_ 5							
Smilax ro	tundifolia	Vine FAC	10							
	,									
% Dominant				<u>, </u>						_
	species FAC or wetter:	100%				Pre	evalence Index:	2.9		_
	t species FAC or wetter:	100%	ND PLANT LICT				evalence Index:	2.9	-	
NOTE: SPECIES INDICA	TOR STATUS ACCORDING TO 2					Calculated u	evalence Index:		_	
	TOR STATUS ACCORDING TO 2		ND PLANT LIST Remarks:	VEGETATIO	ON PARA!		_		-	
NOTE: SPECIES INDICA Rapid Test for Hydrophy	TOR STATUS ACCORDING TO 2			VEGETATIO	ON PARA	Calculated u	_		-	
NOTE: SPECIES INDICA Rapid Test for Hydrophy Dominan	tic Vegetation: tice Test >50%: X					Calculated u	sing all species pres	ent.		
NOTE: SPECIES INDICA Rapid Test for Hydrophy Dominan Prevalence	TOR STATUS ACCORDING TO 2 tic Vegetation: cee Test >50%: X Index is ≤ 3.0 : X					Calculated u	_	ent.	PRESENT.	
NOTE: SPECIES INDICA Rapid Test for Hydrophy Dominan	TOR STATUS ACCORDING TO 2 tic Vegetation: cee Test >50%: X Index is ≤ 3.0 : X					Calculated u	sing all species pres	ent.	PRESENT.	
NOTE: SPECIES INDICA Rapid Test for Hydrophy Dominan Prevalence Problematic Hydrophy	TOR STATUS ACCORDING TO 2 tic Vegetation: cee Test >50%: X Index is ≤ 3.0 : X					Calculated u	sing all species pres	ent.	PRESENT.	
NOTE: SPECIES INDICA Rapid Test for Hydrophy Dominan Prevalence	TOR STATUS ACCORDING TO 2 tic Vegetation: cee Test >50%: X Index is ≤ 3.0 : X					Calculated u	sing all species pres	ent.	PRESENT.	
NOTE: SPECIES INDICA Rapid Test for Hydrophy Dominan Prevalence Problematic Hydrophy	TOR STATUS ACCORDING TO 2 tic Vegetation: cee Test >50%: X Index is ≤ 3.0 : X	2016 NATIONAL WETLA		UNI		Calculated u METER MET. D DOMINANT	sing all species pres	ent.	PRESENT.	
NOTE: SPECIES INDICA Rapid Test for Hydrophy Dominan Prevalence Problematic Hydrophy Soil Parameter:	TO STATUS ACCORDING TO 2 tic Vegetation: $\text{ce Test} > 50\%: \frac{\mathbf{X}}{\mathbf{X}}$ Index is ≤ 3.0 : $\frac{\mathbf{X}}{\mathbf{X}}$ tic Vegetation:	2016 NATIONAL WETLA	Remarks:	UNI	DENTIFIE	Calculated u METER MET. D DOMINANT tures	sing all species pres	ent.	PRESENT.	
NOTE: SPECIES INDICA Rapid Test for Hydrophy Dominan Prevalence Problematic Hydrophy Soil Parameter: Depth (inches)	tic Vegetation: ce Test >50%: X Index is \le 3.0: Vegetation: Mat Color (Moist)	2016 NATIONAL WETLA	Remarks:	UNI	DENTIFIE	Calculated u METER MET. D DOMINANT	sing all species press	ent. AREX (15%) P	Texture	M
NOTE: SPECIES INDICA Rapid Test for Hydrophy Dominan Prevalence Problematic Hydrophy Soil Parameter: Depth (inches) 0-5	tic Vegetation: ce Test >50%: X Index is \le 3.0: X tic Vegetation: Mat Color (Moist) 10YR 4/1	2016 NATIONAL WETLA	Remarks:	UNI r (Moist)	DENTIFIE Redox Feat	Calculated u METER MET. D DOMINANT tures Type	SPECIES OF CA	ent. AREX (15%) P	Texture NE SANDY LOA	
NOTE: SPECIES INDICA Rapid Test for Hydrophy Dominan Prevalence Problematic Hydrophy Soil Parameter: Depth (inches)	tic Vegetation: ce Test >50%: X Index is \le 3.0: Vegetation: Mat Color (Moist)	2016 NATIONAL WETLA	Remarks:	UNI	DENTIFIE	Calculated u METER MET. D DOMINANT tures	sing all species press	ent. AREX (15%) P	Texture	
NOTE: SPECIES INDICA Rapid Test for Hydrophy Dominan Prevalence Problematic Hydrophy Soil Parameter: Depth (inches) 0-5	tic Vegetation: ce Test >50%: X Index is \le 3.0: X tic Vegetation: Mat Color (Moist) 10YR 4/1	2016 NATIONAL WETLA	Remarks:	UNI r (Moist)	DENTIFIE Redox Feat	Calculated u METER MET. D DOMINANT tures Type	SPECIES OF CA	ent. AREX (15%) P	Texture NE SANDY LOA	
NOTE: SPECIES INDICA Rapid Test for Hydrophy Dominan Prevalence Problematic Hydrophy Soil Parameter: Depth (inches) 0-5	tic Vegetation: ce Test >50%: X Index is \le 3.0: X tic Vegetation: Mat Color (Moist) 10YR 4/1	2016 NATIONAL WETLA	Remarks:	UNI r (Moist)	DENTIFIE Redox Feat	Calculated u METER MET. D DOMINANT tures Type	SPECIES OF CA	ent. AREX (15%) P	Texture NE SANDY LOA	
NOTE: SPECIES INDICA Rapid Test for Hydrophy Dominan Prevalence Problematic Hydrophy Soil Parameter: Depth (inches) 0-5	tic Vegetation: ce Test >50%: X Index is \le 3.0: X tic Vegetation: Mat Color (Moist) 10YR 4/1	2016 NATIONAL WETLA	Remarks:	UNI r (Moist)	DENTIFIE Redox Feat	Calculated u METER MET. D DOMINANT tures Type	SPECIES OF CA	ent. AREX (15%) P	Texture NE SANDY LOA	
NOTE: SPECIES INDICA Rapid Test for Hydrophy Dominan Prevalence Problematic Hydrophy Soil Parameter: Depth (inches) 0-5 5-20	tic Vegetation: ce Test >50%: X Index is \le 3.0: X tic Vegetation: Mat Color (Moist) 10YR 4/1	2016 NATIONAL WETLA	Remarks:	UNI r (Moist)	DENTIFIE Redox Feat	Calculated u METER MET. D DOMINANT tures Type	SPECIES OF CA	ent. AREX (15%) P	Texture NE SANDY LOA	
NOTE: SPECIES INDICA Rapid Test for Hydrophy Dominan Prevalence Problematic Hydrophy Soil Parameter: Depth (inches) 0-5 5-20 Hydric Soil Indicators:	TOR STATUS ACCORDING TO 2 tic Vegetation: tic Vegetation: X Index is ≤ 3.0 : X tic Vegetation:	2016 NATIONAL WETLA. trix	Remarks:	UNI r (Moist) YR 5/8	Redox Feat % 10	Calculated u METER MET. D DOMINANT tures Type C	SPECIES OF CA Loc M	P. P	Texture NE SANDY LOA NE SANDY LOA	M
NOTE: SPECIES INDICA Rapid Test for Hydrophy Dominan Prevalence Problematic Hydrophy Soil Parameter: Depth (inches) 0-5 5-20	TOR STATUS ACCORDING TO 2 tic Vegetation: tic Vegetation: X Index is ≤ 3.0 : X tic Vegetation:	2016 NATIONAL WETLA	Remarks:	UNI r (Moist)	Redox Feat % 10	Calculated u METER MET. D DOMINANT tures Type C	SPECIES OF CA Loc M	P. P	Texture NE SANDY LOA	M
NOTE: SPECIES INDICA Rapid Test for Hydrophy Dominan Prevalence Problematic Hydrophy Soil Parameter: Depth (inches) 0-5 5-20 Hydric Soil Indicators:	TOR STATUS ACCORDING TO 2 tic Vegetation: cee Test >50%: X Index is \le 3.0: X tic Vegetation: Mat Color (Moist) 10YR 4/1 10YR 6/2	2016 NATIONAL WETLA. trix	Remarks:	UNI r (Moist) YR 5/8	Redox Feat % 10 Surface (F6)	Calculated u METER MET. D DOMINANT tures Type C	SPECIES OF CA Loc M	P. P	Texture NE SANDY LOA NE SANDY LOA	M
NOTE: SPECIES INDICA Rapid Test for Hydrophy Dominan Prevalence Problematic Hydrophy Soil Parameter: Depth (inches) 0-5 5-20 Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2)	TOR STATUS ACCORDING TO 2 tic Vegetation: ce Test >50%: X Index is ≤ 3.0: X tic Vegetation: Mat Color (Moist) 10YR 4/1 10YR 6/2 Coast Prairi Sandy Mucl	2016 NATIONAL WETLA: 100 90 ie Redox (A16) ky Mineral (S1)	Remarks:	r (Moist) YR 5/8 Redox Dark S Depleted Dar	Redox Feat % 10 Surface (F6) k Surface (I	Calculated u METER MET. D DOMINANT tures Type C	SPECIES OF CA Loc M	REX (15%) P FI FI	Texture NE SANDY LOA NE SANDY LOA oblematic Hydric	M
NOTE: SPECIES INDICA Rapid Test for Hydrophy Dominan Prevalence Problematic Hydrophy Soil Parameter: Depth (inches) 0-5 5-20 Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3)	TOR STATUS ACCORDING TO 2 tic Vegetation: ce Test >50%: X Index is \le 3.0: X tic Vegetation: Mat Color (Moist) 10YR 4/1 10YR 6/2	trix % 100 90 ie Redox (A16) ky Mineral (S1) yed Matrix (S4)	Remarks:	r (Moist) YR 5/8 Redox Dark S Depleted Dar Redox Depres	Redox Feat % 10 Surface (F6) k Surface (I	Calculated u METER MET. D DOMINANT tures Type C	SPECIES OF CA Loc M	FII file total for Property of the Muck	Texture NE SANDY LOA NE SANDY LOA oblematic Hydric	M
NOTE: SPECIES INDICA Rapid Test for Hydrophy Dominan Prevalence Problematic Hydrophy Soil Parameter: Depth (inches) 0-5 5-20 Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4)	TOR STATUS ACCORDING TO 2 tic Vegetation: ce Test >50%: X Index is ≤ 3.0: X tic Vegetation: Mat Color (Moist) 10YR 4/1 10YR 6/2 Coast Prairi Sandy Mucl Sandy Gley Sandy Redo	trix % 100 90 ie Redox (A16) ky Mineral (S1) red Matrix (S4) ox (S5)	Remarks:	r (Moist) YR 5/8 Redox Dark S Depleted Dar Redox Depre: Marl (F10)	Redox Feat % 10 Surface (F6) k Surface (F8)	Calculated u METER MET. D DOMINANT tures Type C	SPECIES OF CA Loc M	FII file ators for Pr. 1cm Muck 2cm Muck	Texture NE SANDY LOA NE SANDY LOA oblematic Hydric (A(9)	M
NOTE: SPECIES INDICA Rapid Test for Hydrophy Dominan Prevalence Problematic Hydrophy Soil Parameter: Depth (inches) 0-5 5-20 Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3)	TOR STATUS ACCORDING TO 2 tic Vegetation: ce Test >50%: X Index is \le 3.0: X tic Vegetation: Mat Color (Moist) 10YR 4/1 10YR 6/2	trix % 100 90 ie Redox (A16) ky Mineral (S1) red Matrix (S4) ox (S5)	Remarks:	r (Moist) YR 5/8 Redox Dark S Depleted Dar Redox Depres	Redox Feat % 10 Surface (F6) k Surface (F8)	Calculated u METER MET. D DOMINANT tures Type C	SPECIES OF CA Loc M	FII file ators for Pr. 1cm Muck 2cm Muck	Texture NE SANDY LOA NE SANDY LOA oblematic Hydric	M
NOTE: SPECIES INDICA Rapid Test for Hydrophy Dominan Prevalence Problematic Hydrophy Soil Parameter: Depth (inches) 0-5 5-20 Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5)	TOR STATUS ACCORDING TO 2 tic Vegetation: ce Test >50%: X Index is ≤ 3.0: X tic Vegetation: Mat Color (Moist) 10YR 4/1 10YR 6/2 Coast Prairi Sandy Mucl Sandy Gley Sandy Redo Stripped Mat	trix % 100 90 ie Redox (A16) ky Mineral (S1) red Matrix (S4) ox (S5) atrix (S6)	Remarks:	r (Moist) YR 5/8 Redox Dark S Depleted Dar Redox Depres Marl (F10) Depleted Och	Redox Feat % 10 Surface (F6) k Surface (F8) ric (F11)	Calculated u METER MET. D DOMINANT tures C C	SPECIES OF CA Loc M	FII licators for Pr 1cm Muck 2cm Muck Reduced V	Texture NE SANDY LOA NE SANDY LOA oblematic Hydric (A9) (A10) (retic (F18)	M Soils
NOTE: SPECIES INDICA Rapid Test for Hydrophy Dominan Prevalence Problematic Hydrophy Soil Parameter: Depth (inches) 0-5 5-20 Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6)	TOR STATUS ACCORDING TO 2 tic Vegetation: ce Test >50%: X Index is ≤ 3.0: X tic Vegetation: Mat Color (Moist) 10YR 4/1 10YR 6/2 Coast Prairi Sandy Mucl Sandy Gley Sandy Redo Stripped Ma Dark Surface	trix	Remarks:	r (Moist) YR 5/8 Redox Dark 5 Depleted Dar Redox Depree Marl (F10) Depleted Och Iron-Mangano	Redox Feat % 10 Surface (F6) k Surface (F8) sric (F11) ese Masses	Calculated u METER MET. D DOMINANT tures C C	SPECIES OF CA Loc M	REX (15%) P FIL dicators for Pr 1cm Muck 2cm Muck Reduced V Piedmont I	Texture NE SANDY LOA NE SANDY LOA oblematic Hydric (A9) (A10) /ertic (F18) Floodplain Soils (I	M Soils
NOTE: SPECIES INDICA Rapid Test for Hydrophy Dominan Prevalence Problematic Hydrophy Soil Parameter: Depth (inches) 0-5 5-20 Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5)	TOR STATUS ACCORDING TO 2 tic Vegetation: ce Test >50%: X Index is ≤ 3.0: X tic Vegetation: Mat Color (Moist) 10YR 4/1 10YR 6/2 Coast Prairi Sandy Mucl Sandy Gley Sandy Redo Stripped Ma Dark Surface	trix % 100 90 ie Redox (A16) ky Mineral (S1) red Matrix (S4) ox (S5) atrix (S6)	Remarks:	r (Moist) YR 5/8 Redox Dark S Depleted Dar Redox Depres Marl (F10) Depleted Och	Redox Feat % 10 Surface (F6) k Surface (F8) sric (F11) ese Masses	Calculated u METER MET. D DOMINANT tures C C	SPECIES OF CA Loc M	REX (15%) P FIL dicators for Pr 1cm Muck 2cm Muck Reduced V Piedmont I	Texture NE SANDY LOA NE SANDY LOA oblematic Hydric (A9) (A10) (retic (F18)	M Soils
NOTE: SPECIES INDICA Rapid Test for Hydrophy Dominan Prevalence Problematic Hydrophy Soil Parameter: Depth (inches) 0-5 5-20 Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6)	TOR STATUS ACCORDING TO 2 tic Vegetation: ce Test >50%: X Index is ≤ 3.0: X tic Vegetation: Mat Color (Moist) 10YR 4/1 10YR 6/2 Coast Prairi Sandy Mucl Sandy Gley Sandy Redo Stripped Ma Dark Surface	trix % 100 90 ie Redox (A16) ky Mineral (S1) red Matrix (S4) ox (S5) atrix (S6) ce (S7) Below Surface (S8)	Remarks:	r (Moist) YR 5/8 Redox Dark 5 Depleted Dar Redox Depree Marl (F10) Depleted Och Iron-Mangano	Redox Fear % 10 Surface (F6) k Surface (F8) ric (F11) ese Masses ce (F13)	Calculated u METER MET. D DOMINANT tures C C	SPECIES OF CA Loc M	FI Ilicators for Pr 1cm Muck 2cm Muck Reduced V Piedmont I Anomalous	Texture NE SANDY LOA NE SANDY LOA oblematic Hydric (A9) (A10) /ertic (F18) Floodplain Soils (I	M Soils
NOTE: SPECIES INDICA Rapid Test for Hydrophy Dominan Prevalence Problematic Hydrophy Soil Parameter: Depth (inches) 0-5 5-20 Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) 5cm Mucky Mineral (A Muck Presence (A8)	TOR STATUS ACCORDING TO 2 tic Vegetation: ce Test >50%: X Index is ≤ 3.0: X tic Vegetation: Mat Color (Moist) 10YR 4/1 10YR 6/2 Coast Prairi Sandy Mucl Sandy Gley Sandy Redo Stripped Mat Dark Surfac 7) Polyvalue B Thin Dark S	trix % 100 90 ie Redox (A16) ky Mineral (S1) red Matrix (S4) ox (S5) atrix (S6) ce (S7) Below Surface (S8) Surface (S9)	Remarks:	r (Moist) YR 5/8 Redox Dark S Depleted Dar Redox Depre: Marl (F10) Depleted Och Iron-Mangane Umbric Surfa Delta Ochric	Redox Feat % 10 10 Surface (F6) k Surface (F8) sric (F11) ese Masses (ce (F13) (F17)	Calculated u METER MET. D DOMINANT tures C C	SPECIES OF CA Loc M	Icators for Pr Icm Muck 2cm Muck 2cm Muck 4cm Muck Piedmont I Anomalou: Red Parent	Texture NE SANDY LOA NE SANDY LOA NE SANDY LOA coblematic Hydric (A9) (A10) (ertic (F18) Floodplain Soils (I s Bright Loamy Sc t Material (TF2)	M Soils F19) bils (F20)
NOTE: SPECIES INDICA Rapid Test for Hydrophy Dominan Prevalence Problematic Hydrophy Soil Parameter: Depth (inches) 0-5 5-20 Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) 5cm Mucky Mineral (A Muck Presence (A8) 1 cm Muck (A9)	Coast Prairi Sandy Mucl Sandy Gley Sandy Redo Stripped Ma Color (Moist) Coast Prairi Sandy Mucl Sandy Gley Sandy Redo Stripped Ma Dark Surfac Dark Surfac Thin Dark S Loamy Mucl Coast Mat Dark Surfac Loamy Mucl	trix % 100 90 ie Redox (A16) ky Mineral (S1) red Matrix (S4) ox (S5) atrix (S6) ce (S7) 3elow Surface (S8) Surface (S9) cky Mineral (F1)	Remarks:	r (Moist) YR 5/8 Redox Dark S Depleted Dar Redox Depree Marl (F10) Depleted Och Iron-Mangane Umbric Surfa Delta Ochric Reduced Vert	Redox Feat % 10 Surface (F6) k Surface (F8) ric (F11) esse Masses (ce (F13) (F17) ic (F18)	Calculated u METER MET. D DOMINANT tures C C F7)	SPECIES OF CA Loc M	Ilicators for Pro Icm Muck 2cm Muck 2cm Muck Pedmont I Anomalous Red Parent Very Shall	Texture NE SANDY LOA NE SANDY LOA NE SANDY LOA oblematic Hydric (A9) (A10) /ertic (F18) Floodplain Soils (I s Bright Loamy So	M Soils F19) bils (F20)
NOTE: SPECIES INDICA Rapid Test for Hydrophy Dominan Prevalence Problematic Hydrophy Soil Parameter: Depth (inches) 0-5 5-20 Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) 5cm Mucky Mineral (A Muck Presence (A8)	Coast Prairi Sandy Mucl Sandy Gley Sandy Redo Stripped Ma Color (Moist) Coast Prairi Sandy Mucl Sandy Gley Sandy Redo Stripped Ma Dark Surfac Dark Surfac Thin Dark S Loamy Mucl Coast Mat Dark Surfac Loamy Mucl	trix % 100 90 ie Redox (A16) ky Mineral (S1) red Matrix (S4) ox (S5) atrix (S6) ce (S7) Below Surface (S8) Surface (S9)	Remarks:	r (Moist) YR 5/8 Redox Dark S Depleted Dar Redox Depre: Marl (F10) Depleted Och Iron-Mangane Umbric Surfa Delta Ochric	Redox Feat % 10 Surface (F6) k Surface (F8) ric (F11) esse Masses (ce (F13) (F17) ic (F18)	Calculated u METER MET. D DOMINANT tures C C F7)	SPECIES OF CA Loc M	Icators for Pr Icm Muck 2cm Muck 2cm Muck 4cm Muck Piedmont I Anomalou: Red Parent	Texture NE SANDY LOA NE SANDY LOA NE SANDY LOA coblematic Hydric (A9) (A10) (ertic (F18) Floodplain Soils (I s Bright Loamy Sc t Material (TF2)	M Soils F19) bils (F20)
NOTE: SPECIES INDICA Rapid Test for Hydrophy Dominan Prevalence Problematic Hydrophy Soil Parameter: Depth (inches) 0-5 5-20 Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) 5cm Mucky Mineral (A Muck Presence (A8) 1 cm Muck (A9) Depleted Below Dark S	TOR STATUS ACCORDING TO 2 tic Vegetation: ce Test >50%: X Index is ≤ 3.0: X tic Vegetation: Mat Color (Moist) 10YR 4/1 10YR 6/2 Coast Prairi Sandy Mucl Sandy Redo Stripped Ma Dark Surface Thin Dark S Loamy Muc Surface (A: Loamy Gley	trix % 100 90	Remarks:	r (Moist) YR 5/8 Redox Dark S Depleted Dar Redox Depree Marl (F10) Depleted Och Iron-Mangane Umbric Surfa Delta Ochric Reduced Vert Piedmont Flo	Redox Feat % 10 Surface (F6) k Surface (F ssions (F8) aric (F11) see Masses (ce (F13) (F17) ic (F18) odplain Soi	Calculated u METER MET. D DOMINANT tures C C 77) (F12)	SPECIES OF CA Loc M	Ilicators for Pro Icm Muck 2cm Muck 2cm Muck Pedmont I Anomalous Red Parent Very Shall	Texture NE SANDY LOA NE SANDY LOA NE SANDY LOA coblematic Hydric (A9) (A10) (ertic (F18) Floodplain Soils (I s Bright Loamy Sc t Material (TF2)	M Soils F19) bils (F20)
NOTE: SPECIES INDICA Rapid Test for Hydrophy Dominan Prevalence Problematic Hydrophy Soil Parameter: Depth (inches) 0-5 5-20 Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) 5cm Mucky Mineral (A Muck Presence (A8) 1 cm Muck (A9)	TOR STATUS ACCORDING TO 2 tic Vegetation: ce Test >50%: X Index is ≤ 3.0: X tic Vegetation: Mat Color (Moist) 10YR 4/1 10YR 6/2 Coast Prairi Sandy Mucl Sandy Redo Stripped Ma Dark Surface Thin Dark S Loamy Muc Surface (A: Loamy Gley	trix % 100 90	Remarks:	r (Moist) YR 5/8 Redox Dark S Depleted Dar Redox Depree Marl (F10) Depleted Och Iron-Mangane Umbric Surfa Delta Ochric Reduced Vert	Redox Feat % 10 Surface (F6) k Surface (F ssions (F8) aric (F11) see Masses (ce (F13) (F17) ic (F18) odplain Soi	Calculated u METER MET. D DOMINANT tures C C 77) (F12)	SPECIES OF CA Loc M	Ilicators for Pro Icm Muck 2cm Muck 2cm Muck Pedmont I Anomalous Red Parent Very Shall	Texture NE SANDY LOA NE SANDY LOA NE SANDY LOA coblematic Hydric (A9) (A10) (ertic (F18) Floodplain Soils (I s Bright Loamy Sc t Material (TF2)	M Soils F19) bils (F20)
NOTE: SPECIES INDICA Rapid Test for Hydrophy Dominan Prevalence Problematic Hydrophy Soil Parameter: Depth (inches) 0-5 5-20 Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) 5cm Mucky Mineral (A Muck Presence (A8) 1 cm Muck (A9) Depleted Below Dark S Thick Dark Surface (A	TOR STATUS ACCORDING TO 2 tic Vegetation: ce Test >50%: X Index is ≤ 3.0: X tic Vegetation: Mat Color (Moist) 10YR 4/1 10YR 6/2 Coast Prairi Sandy Mucl Sandy Gley Sandy Redo Stripped Ma Dark Surfac Thin Dark S Loamy Muc Surface (A! Loamy Gley 12) X Depleted M	trix % 100 90	Colo	r (Moist) YR 5/8 Redox Dark S Depleted Dar Redox Depre: Marl (F10) Depleted Och Iron-Mangane Umbric Surfa Delta Ochric Reduced Vert Piedmont Flo Anomalous B	Redox Feat % 10 Surface (F6) k Surface (F ssions (F8) ric (F11) see Masses (ce (F13) (F17) ic (F18) odplain Soi right Loam	Calculated u METER MET. D DOMINANT tures C C (F12) (F12) Is (F19) y Soils (F20)	SPECIES OF CA Loc M	Ilicators for Pro Icm Muck 2cm Muck 2cm Muck Pedmont I Anomalous Red Parent Very Shall	Texture NE SANDY LOA NE SANDY LOA NE SANDY LOA coblematic Hydric (A9) (A10) (ertic (F18) Floodplain Soils (I s Bright Loamy Sc t Material (TF2)	M Soils F19) bils (F20)
NOTE: SPECIES INDICA Rapid Test for Hydrophy Dominan Prevalence Problematic Hydrophy Soil Parameter: Depth (inches) 0-5 5-20 Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) 5cm Mucky Mineral (A Muck Presence (A8) 1 cm Muck (A9) Depleted Below Dark S	TOR STATUS ACCORDING TO 2 tic Vegetation: ce Test >50%: X Index is ≤ 3.0: X tic Vegetation: Mat Color (Moist) 10YR 4/1 10YR 6/2 Coast Prairi Sandy Mucl Sandy Gley Sandy Redo Stripped Ma Dark Surfac Thin Dark S Loamy Muc Surface (A! Loamy Gley 12) X Depleted M	trix % 100 90	Remarks:	r (Moist) YR 5/8 Redox Dark S Depleted Dar Redox Depree Marl (F10) Depleted Och Iron-Mangane Umbric Surfa Delta Ochric Reduced Vert Piedmont Flo	Redox Feat % 10 Surface (F6) k Surface (F ssions (F8) ric (F11) see Masses (ce (F13) (F17) ic (F18) odplain Soi right Loam	Calculated u METER MET. D DOMINANT tures C C (F12) (F12) Is (F19) y Soils (F20)	SPECIES OF CA Loc M	Ilicators for Pro Icm Muck 2cm Muck 2cm Muck Pedmont I Anomalous Red Parent Very Shall	Texture NE SANDY LOA NE SANDY LOA NE SANDY LOA coblematic Hydric (A9) (A10) (ertic (F18) Floodplain Soils (I s Bright Loamy Sc t Material (TF2)	M Soils F19) bils (F20)
NOTE: SPECIES INDICA Rapid Test for Hydrophy Dominan Prevalence Problematic Hydrophy Soil Parameter: Depth (inches) 0-5 5-20 Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) 5cm Mucky Mineral (A Muck Presence (A8) 1 cm Muck (A9) Depleted Below Dark S Thick Dark Surface (A	TOR STATUS ACCORDING TO 2 tic Vegetation: ce Test >50%: X Index is ≤ 3.0: X tic Vegetation: Mat Color (Moist) 10YR 4/1 10YR 6/2 Coast Prairi Sandy Mucl Sandy Gley Sandy Redo Stripped Ma Dark Surfac Thin Dark S Loamy Muc Surface (Al Loamy Gley Surface (Al Loamy Gley X Depleted M Dark Surface (Al Loamy Gley Surved)	trix % 100 90	Colo	r (Moist) YR 5/8 Redox Dark S Depleted Dar Redox Depre: Marl (F10) Depleted Och Iron-Mangane Umbric Surfa Delta Ochric Reduced Vert Piedmont Flo Anomalous B	Redox Feat % 10 Surface (F6) k Surface (F ssions (F8) ric (F11) see Masses (ce (F13) (F17) ic (F18) odplain Soi right Loam	Calculated u METER MET. D DOMINANT tures C C (F12) (F12) Is (F19) y Soils (F20)	SPECIES OF CA Loc M	Ilicators for Pro Icm Muck 2cm Muck 2cm Muck Pedmont I Anomalous Red Parent Very Shall	Texture NE SANDY LOA NE SANDY LOA NE SANDY LOA coblematic Hydric (A9) (A10) (ertic (F18) Floodplain Soils (I s Bright Loamy Sc t Material (TF2)	M Soils F19) bils (F20)

	Sta	nte	C
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Stantec A	-	CAMP PENDLET NIA DEPARTMEÌ				Section/To	ownship/Range		N/A		
	//County:		IIA BEACH				LRR or MLRA)		T		
	State:		RGINIA				Site Latitude		36.81643		
Invest	rigator(s):		OUNG 12/2017			0.31	Site Longitude		-75.9784		
	Date:	10/	12/2017			2011 IV	Map Unit Name	ACK	REDALE SII	_1 LOAM	
Summary of Findings:				WETLAND	BELOW FI	LAG 'KPN-40'.					
	Vegetation is Present:	X			cumstances:	X	NWI Classifica		N/A		
	ydric Soils are Present: d Hydrology is Present:	X		Parameters (se Parameters (se	· ·		Local R Landi		NONE FLAT		
	a is within a Wetland:		ypical Climate/					norm: ne %:	1-2		
Hydrology Parameter:			/1	, ,,			•				
	Primary	y Indicators:						Secondary Indic	ators:		
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 A	Aqu Ma Hyu Oxi Pre Rec	ter Stained Leaves (natic Fauna (B13) rl Deposits (B15) drogen Sulfide Odor dized Rhizospheres sence of Reduced Ir rent Iron Reduction n Muck Surface (C7 er	(C1) on Living Roo on (C4) in Tilled Soils				Sparsely V Drainage I Moss Trin Dry-Seasc Crayfish F Saturation Stunted or Geomorph Shallow A X FAC-Neur	pil Cracks (B6) //egetated Concar Patterns (B10) n Lines (B16) n Water Table (Burrows (C8) Visible on Aeria Stressed Plants nic Position (D2) .quitard (D3) n'unitard (D3)	C2) al Imagery ((D1)		
Water Depths (inches):			Remarks:	HYDROLO	GY PARAN	METER MET.	Spriagram	1 MO33 (DO)			
Surface Water:											
Water Table:											
Saturated soil: Vegetation Parameter:	>20										
						_					
Dominan Liquidambar		Tree FAC				minant Species s americana		Stratum Tree	IND FAC	5	
Pinus	taeda	Tree FAC	10		Smilax	rotundifolia		Herbaceous	FAC	5	
Acer ri Ulmus an		Tree FAC Sapling FAC			Microste	gium vimineum		Herbaceous	FAC	5	
Acer ri		Sapling FAC									
Osmunda s		erbaceous OBI									
Athyrium as	spienioiaes H	erbaceous FAC	10								
% Dominant	species FAC or wetter:	100%				Pr	evalence Index	2.7			
	FOR STATUS ACCORDING TO 20	016 NATIONAL WETLA					using all species pr	esent.	•		
Rapid Test for Hydrophyt			Remarks:	VEGETAT	ION PARA	METER MET.					
	ce Test >50%: X Index is \leq 3.0: X										
Problematic Hydrophyt											
Soil Parameter:	Matr	iv			Redox Feat	turos					
Depth (inches)	Color (Moist)	%	Colo	r (Moist)	%	Type	Loc		Textur	e	
0-1	10YR 3/2	100							LOAM		
1-20	2.5Y 7/1	75	2.:	5Y 6/8	25	С	M		CLAY LO	AM	
					-						
		1									
Hydric Soil Indicators:		•	•					•			
Histosol (A1)		Redox (A16)	_		Surface (F6)		i	Indicators for Pr	oblematic H	ydric Soils!	
Histic Epipedon (A2) Black Histic (A3)		y Mineral (S1) d Matrix (S4)	_	Depleted Da Redox Depre	rk Surface (I	₹/)		1cm Muck	(AQ)		
Hydrogen Sulfide (A4)	Sandy Redox		_	Marl (F10)	COSIONS (1 0)			2cm Muck			
Stratified Layers (A5)	Stripped Mat			Depleted Oc	chric (F11)				ertic (F18)		
Organic Bodies (A6)	_	Iron-Mangar		(F12)			Floodplain S				
5cm Mucky Mineral (A		elow Surface (S8)	_	Umbric Surf					-	amy Soils (F	² 20)
Muck Presence (A8) 1 cm Muck (A9)	Thin Dark St	urface (S9) cy Mineral (F1)	_	Delta Ochric					t Material (T		2)
Depleted Below Dark S		ed Matrix (F2)	Reduced Vertic (F18) Piedmont Floodplain Soils (F19) Very Shallow Dark Surface (TF12) Other						·)		
Thick Dark Surface (A1			Anomalous Bright Loamy Soils (F20)								
	· — ·	· *		=							
Restrictive Layer (If Ob.			Remarks:	SOIL PARA	AMETER M	IET.					
Type: Depth (inches):											
Deptii (meiles).											



Stantec		MR CAMP PEND				1				****		
	Applicant: VIR y/County:	GINIA DEPART	MENT OF GINIA BI		AFFAIRS			ownship/Range: LRR or MLRA):		N/A T		
Cit	State:	VIN	VIRGINI				Subregion (L	Site Latitude:		36.8164	31°	
Inves	tigator(s):		B. YOUN					Site Longitude:		-75.9784		
	Date:		10/12/201	17			Soil N	Map Unit Name:	ACR	EDALE SI	LT LOAM	
G 05: 11												
Summary of Findings:	c Vegetation is Present:	X			LAND ABOVI rmal Circumsta			NWI Classificat	ioni	N/A		
	Lydric Soils are Present:	X	Di		eters (see Rema	_	<u> </u>	Local Re		NONI	3	
	d Hydrology is Present:				eters (see Rema		_	Landfo		FLAT		
	ea is within a Wetland:				ology (see Rema	_	_	Slope		0-1		
Hydrology Parameter:												
	Prii	nary Indicators:							econdary Indic	ators:		
									l Cracks (B6)			
Surface Water (A1) High Water Table (A2)		Water Stained Lea Aquatic Fauna (B1							egetated Concav atterns (B10)	ve Surface (B8)	
Saturation (A3)		Marl Deposits (B1							Lines (B16)			
Water Marks (B1)		Hydrogen Sulfide							Water Table (C2)		
Sediment Deposits (B2		Oxidized Rhizosph		ing Roots (C3)			Crayfish B				
Drift Deposits (B3)	<u> </u>	Presence of Reduc							Visible on Aeria		(C9)	
Algal Mat or Crust (B4		Recent Iron Reduc		ed Soils (C6)					Stressed Plants			
Iron Deposits (B5)		Thin Muck Surface	e (C7)						c Position (D2)			
Inundation Visible on A	Aeriai imagery (B/)	Other							quitard (D3) al Test (D5)			
								Sphagnum				
Water Depths (inches):			Re	marks: HY	DROLOGY PA	ARAMI	ETER NOT I	1 0	. ,			
Surface Water	:											
Water Table												
Saturated soil	: >20											
Vegetation Parameter:												
Dominar	nt Species	Stratum	IND	%	No	n-Domi	inant Species		Stratum	IND	%	
	s rubra			50			s taeda		Tree	FAC	10	
	s rubra ubrum			10 5			sempervirens a japonica		Herbaceous Herbaceous	FAC FACU	5 5	
	halimifolia			15			dron radicans		Herbaceous	FAC	3	
	r styraciflua			5								
	undifolia undifolia			20 10								
	tundifolia		FAC	5								
							_					
	species FAC or wetter: TOR STATUS ACCORDING	75%	PTI AND DI A	NT LICT				evalence Index: using all species pre	3.5	J u		
Rapid Test for Hydrophy		TO 2016 NATIONAL WI			GETATION P.	ARAM			seni.			
	ce Test >50%: X		RC	marks. VE	OLIAIION I	AIKA WI	EIEK MEI.					
	Index is ≤ 3.0:											
Problematic Hydrophy												
Soil Parameter:								Ī				
Depth (inches)	Color (Mois	fatrix	%	Color (Mo		x Featu	Type	Loc		Textu	•0	
0-3	10YR 3/3		00	Color (Mo	ust) /	0	турс	Loc		LOAN		
3-20	10YR 6/2		95	2.5Y 6/6	5 5	;	С	M		CLAY LO		
	20110 3/2			1 3/0			-				-	
Hydric Soil Indicators:												
Histosol (A1)		airie Redox (A16)			ox Dark Surfac			In	dicators for Pro	oblematic F	lydric Soil	s
Histic Epipedon (A2)		ucky Mineral (S1)			leted Dark Surf)			(10)		
Black Histic (A3)		leyed Matrix (S4)			ox Depressions	(F8)		-	1cm Muck			
Hydrogen Sulfide (A4) Stratified Layers (A5)		edox (S5) Matrix (S6)			d (F10) deted Ochric (F	11)			2cm Muck Reduced V			
Organic Bodies (A6)		face (S7)			-Manganese M		12)	-	Piedmont I		Soils (F19)	
5cm Mucky Mineral (A		e Below Surface (S	(8)		bric Surface (F		/		Anomalous	-		
Muck Presence (A8)		k Surface (S9)	•		ta Ochric (F17)			•	Red Parent	_	-	
1 cm Muck (A9)		lucky Mineral (F1)		Red	uced Vertic (F1	8)			Very Shall	ow Dark St	ırface (TF	12)
Depleted Below Dark S		Gleyed Matrix (F2)			lmont Floodpla				Other			
Thick Dark Surface (A	12) X Depleted	Matrix (F3)	Anomalous Bright Loamy Soils (F20)									
Darwining 7 (70 0)	assamind)		Remarks: SOIL PARAMETER MET.									
Restrictive Layer (If Ol Type			Re	marks: SOI	IL PAKAMET	EK ME	.1.					
Depth (inches)												

		Sta	ntec
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Stantec A					F MILITARY AFFAIRS Section/Township/Range:					e: N/A			
The state of the s	/County:		VIRGINIA					LRR or MLRA):		T			
	State:		VIRG				•	Site Latitude:		36.816431			
Invest	igator(s):		B. YO 10/12/					Site Longitude:	ACI	-75.97849			
	Date:		10/12/	2017			S011 I	Map Unit Name:	ACI	REDALE SIL	I LOAM		
Summary of Findings:					WETLANI	D NEAR FL	AG 'KPM-9'.						
	Vegetation is Present:	X				cumstances:		NWI Classifica		N/A			
· · · · · · · · · · · · · · · · · · ·	ydric Soils are Present:	X	_		Parameters (se			Local Re		CONCAV			
	Hydrology is Present:	X			Parameters (se			Landf		DRAINAGEV	VAY		
Hydrology Parameter:	a is within a Wetland:	Λ	Atypi	cai Climate/	Hydrology (se	e Remarks):		Slop	e %:	0-2			
frydrology i arameter.	Prii	nary Indicat	ors:						Secondary Indi	cators:			
	2.00	may marcan	,,,,						il Cracks (B6)	cuio i si			
Surface Water (A1)		Water Staine	d Leaves (B9						egetated Conca	ve Surface (B	8)		
High Water Table (A2)		Aquatic Fau							atterns (B10)				
X Saturation (A3) Water Marks (B1)		Marl Deposi		11)					Lines (B16) n Water Table ((C2)			
Sediment Deposits (B2)			ılfide Odor (C izospheres on		ts (C3)				urrows (C8)	(C2)			
Drift Deposits (B3)			Reduced Iron	-	(C3)				Visible on Aeri	al Imagery (C	(9)		
Algal Mat or Crust (B4)		Recent Iron	Reduction in	Tilled Soils	(C6)			Stunted or	Stressed Plants	(D1)			
Iron Deposits (B5)	_	Thin Muck S	Surface (C7)						ic Position (D2))			
Inundation Visible on A	erial Imagery (B7)	Other						quitard (D3)					
								Sphagnum	ral Test (D5) Moss (D8)				
Water Depths (inches):				Remarks:	HYDROLO	OGY PARAN	METER MET.	1 0	111000 (20)				
Surface Water:													
Water Table:													
Saturated soil:	10												
Vegetation Parameter:													
Dominan	•	Stratum	IND	%			minant Species		Stratum	IND	%		
Liquidambar Acer ru		Tree Tree	FAC FAC	20 15			nus taeda nus florida		Tree Sapling	FAC FACU	5 5		
Carya tor		Sapling	UPL	15		Corr	nus jioriuu		Sapinig	TACO	3		
Acer ru		Sapling	FAC	10									
Lindera i Vitis rotu		Shrub Herbaceou	s FACW FAC	10 10									
Lonicera j	iaponica	Herbaceou	s FACU	5									
Smilax rot Toxicodendro		Herbaceou Vine		5 3									
Toxicoaenare	on radicans	VIIIC	FAC	3									
													
	species FAC or wetter:							revalence Index:		_			
Rapid Test for Hydrophyti	FOR STATUS ACCORDING T	TO 2016 NATIO	NAL WETLAND	Remarks:	VECETATI	ION DADA!	Calculated METER MET.	using all species pro	esent.				
	te Test >50%: X			Kemarks.	VEGETATI	IONTAKA	VIETER MET						
Prevalence I	ndex is ≤ 3.0:	•											
Problematic Hydrophyt	ic Vegetation:												
CHR													
Soil Parameter:	N.	latrix		T		Redox Fea	turos						
Depth (inches)	Color (Mois		%	Colo	r (Moist)	%	Туре	Loc		Texture			
0-1	10YR 3/2		100		` ′		**			LOAM			
1-3	10YR 5/2		90		YR 5/6	10	С	M		LOAM			
3-20	2.5Y 6/2		90	10	YR 5/6	10	С	M		CLAY LOA	M		
		-											
Hydric Soil Indicators:													
Histosol (A1)	Coast Pra	airie Redox (A16)		Redox Dark	Surface (F6))	I	ndicators for Pr	roblematic Hv	dric Soils		
Histic Epipedon (A2)		ucky Minera		_	_	ark Surface (I							
Black Histic (A3)	Sandy G	leyed Matrix	(S4)		Redox Depre	essions (F8)			1cm Mucl	x (A9)			
Hydrogen Sulfide (A4)		edox (S5)		_	Marl (F10)				2cm Mucl				
Stratified Layers (A5)		Matrix (S6)			Depleted Oc		(F12)			Vertic (F18)	T (F10)		
Organic Bodies (A6) 5cm Mucky Mineral (A7)		face (S7) e Below Surf	Page (SS)	_	Umbric Surf	nese Masses	(F12)			Floodplain Sc	ny Soils (F20)		
Muck Presence (A8)		k Surface (S		_	Delta Ochric					is Bright Loan it Material (TI	•		
1 cm Muck (A9)		lucky Miner			Reduced Ver					low Dark Sur			
Depleted Below Dark St		leyed Matrix		Piedmont Floodplain Soils (F19) Other						•			
Thick Dark Surface (A1	2) X Depleted	Matrix (F3)		Anomalous Bright Loamy Soils (F20)									
Daniel e Taran	J)			D 1	COIL BAR	AMERER	ŒT						
Restrictive Layer (If Obs Type:				Remarks:	SOIL PARA	ANIETEK M	IEI.						
Depth (inches):													

22
LL



Stantec A	Stantec Applicant: VIRGINIA DEPARTME					ON WEILAND DELINEATION OF MILITARY AFFAIRS Section/To				wnship/Range: N/A			
	/County:	31. (11.1.2)	VIRGINIA					RR or MLRA):		T		_	
	State:		VIRG					Site Latitude:		36.81643			
Investi	gator(s):		B. YO					Site Longitude:		-75.9784			
	Date:		10/12/	2017			Soil M	ap Unit Name:	ACR	EDALE SI	LT LOAM		
Summary of Findings:					WETLAND	BELOW FI	LAG 'KPM-9'.						
	Vegetation is Present:	X			Normal Circ			NWI Classifica	tion:	N/A		_	
Ну	dric Soils are Present:	X		Disturbed I	Parameters (see	e Remarks):		Local Re	lief:	CONCA	VE		
Wetland	Hydrology is Present:	X		Problematic Parameters (see Remarks): Landform:						RAINAGE	EWAY		
•	is within a Wetland:	X	Atypi	cal Climate/l	Hydrology (see	e Remarks):		Slop	e %:	1-2			
Hydrology Parameter:	n ·	v 11				1						_	
	Prim	ary Indica	tors:						Secondary Indica il Cracks (B6)	ators:			
Surface Water (A1)	X	Water Stain	ned Leaves (B9))			-		egetated Concav	e Surface (B8)		
High Water Table (A2)		Aquatic Fat					-		atterns (B10)				
Saturation (A3)	<u></u> 1	Marl Depos	sits (B15)				_	Moss Trim	Lines (B16)				
Water Marks (B1)			Sulfide Odor (C				-		n Water Table (C	C2)			
Sediment Deposits (B2)			hizospheres on	_	s (C3)		_		urrows (C8)		·G0\		
Drift Deposits (B3) Algal Mat or Crust (B4)			Reduced Iron Reduction in		(C6)		-		Visible on Aeria Stressed Plants ((9)		
Iron Deposits (B5)			Surface (C7)	inica sons	(00)		_		ic Position (D2)	D1)			
Inundation Visible on Ae		Other					-		quitard (D3)				
							_	X FAC-Neutr	ral Test (D5)				
								Sphagnum	Moss (D8)				
Water Depths (inches):				Remarks:	HYDROLO	GY PARAN	METER MET.						
Surface Water: Water Table:													
Saturated soil:													
Vegetation Parameter:	>20			1								_	
Dominant Liquidambar		Stratun Tree	i IND FAC	30			minant Species		Stratum Tree	IND FAC	10		
Liquidambar Acer rui		Tree	FAC	15			us taeaa cus effusus		Herbaceous	OBL	10		
Acer rui	brum	Sapling	FAC	10		Smilax	rotundifolia		Herbaceous	FAC	5		
Liquidambar Elaeagnus u		Sapling Shrub	FAC UPL	10 5		Rub	us argutus		Herbaceous	FAC	3		
Vaccinium co		Shrub	FACW	5									
Onoclea se		Herbaceo		65									
Smilax rotu	ındifolia	Vine	FAC	5									
	1								l l				
% Dominant s	species FAC or wetter:	88%					Pre	valence Index:	2.5				
	OR STATUS ACCORDING TO) 2016 NATIO	ONAL WETLAND					sing all species pre	esent.				
Rapid Test for Hydrophytic				Remarks:	VEGETATI	ON PARA	METER MET.						
	e Test >50%: X												
Problematic Hydrophytic	ndex is ≤ 3.0: X												
1 Toblematic Trydrophytic	c vegetation.												
Soil Parameter:													
Soil Parameter:		atrix				Redox Fea	tures						
Depth (inches)	Color (Moist		%	Color	r (Moist)	Redox Fea	tures Type	Loc		Textur			
Depth (inches) 0-5	Color (Moist) 10YR 4/2		100	Color	· (Moist)			Loc		LOAM	1		
Depth (inches) 0-5 5-8	Color (Moist) 10YR 4/2 10YR 5/2		100 100			%	Туре			LOAM LOAM	1 1		
Depth (inches) 0-5	Color (Moist) 10YR 4/2		100		r (Moist) YR 6/6			Loc		LOAM	1 1		
Depth (inches) 0-5 5-8	Color (Moist) 10YR 4/2 10YR 5/2		100 100			%	Туре			LOAM LOAM	1 1		
Depth (inches) 0-5 5-8 8-20	Color (Moist) 10YR 4/2 10YR 5/2		100 100			%	Туре			LOAM LOAM	1 1		
Depth (inches) 0-5 5-8	Color (Moist 10YR 4/2 10YR 5/2 10YR 6/2		100 100 95			5	С	M	ndicators for Pre	LOAM LOAM CLAY LO	1 1 DAM		
Depth (inches)	Color (Moist 10YR 4/2 10YR 5/2 10YR 6/2 Coast PraSandy Mu	irie Redox icky Miner	100 100 95 (A16) al (S1)		YR 6/6 Redox Dark (% 5 Surface (F6) rk Surface (I	С	M		LOAM LOAM CLAY LO	1 1 DAM		
Depth (inches) 0-5 5-8 8-20 Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3)	Color (Moist 10YR 4/2 10YR 5/2 10YR 6/2 Coast Pra Sandy Mt Sandy Glo	irie Redox icky Miner byed Matrix	100 100 95 (A16) al (S1)		YR 6/6 Redox Dark in the Depleted Data Redox Depre	% 5 Surface (F6) rk Surface (I	С	M	1cm Muck	LOAM LOAM CLAY LO	1 1 DAM		
Depth (inches) 0-5 5-8 8-20 Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4)	Color (Moist 10YR 4/2 10YR 5/2 10YR 6/2 Coast Pra Sandy Mt Sandy Gle Sandy Re	irie Redox icky Miner byed Matrix dox (S5)	100 100 95 (A16) al (S1) x (S4)		Redox Dark Depleted Dar Redox Depre Marl (F10)	% 5 Surface (F6) rk Surface (F8)	С	M	1cm Muck 2cm Muck	LOAM LOAM CLAY LO	1 1 DAM		
Depth (inches) 0-5 5-8 8-20 Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5)	Color (Moist 10YR 4/2 10YR 5/2 10YR 6/2 Coast Pra Sandy Mt Sandy Gl Sandy Re Stripped 1	irie Redox acky Miner eyed Matrix dox (S5) Matrix (S6)	100 100 95 (A16) al (S1) x (S4)		Redox Dark : Depleted Dar Redox Depre Marl (F10) Depleted Ocl	% 5 Surface (F6) rk Surface (I essions (F8) hric (F11)	Type C F7)	M	1cm Muck 2cm Muck Reduced V	LOAM LOAM CLAY LO oblematic H (A9) (A10) ertic (F18)	1 1 DAM		
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6)	Color (Moist 10YR 4/2 10YR 5/2 10YR 6/2 Coast Pra Sandy Mt Sandy Gl Sandy Re Stripped 1 Dark Surf	irie Redox icky Miner eyed Matriz dox (S5) Matrix (S6) ace (S7)	100 100 95 (A16) al (S1) x (S4)		Redox Dark : Depleted Dar Redox Depre Marl (F10) Depleted Ocl Iron-Mangan	% Surface (F6) rk Surface (F8) hric (F11) lese Masses	Type C F7)	M	1cm Muck 2cm Muck Reduced V	LOAM LOAM CLAY LO bblematic H (A9) (A10) ertic (F18)	A A A A A A A A A A A A A A A A A A A		
Depth (inches) 0-5 5-8 8-20 Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5)	Color (Moist 10YR 4/2 10YR 5/2 10YR 6/2 Coast Pra Sandy Mt Sandy Gld Sandy Re Stripped 1 Dark Surf) Polyvalue	irie Redox acky Miner eyed Matrix dox (S5) Matrix (S6)	100 100 95 (A16) al (S1) x (S4)		Redox Dark : Depleted Dar Redox Depre Marl (F10) Depleted Ocl	Surface (F6) Surface (F8) hric (F11) hese Masses ace (F13)	Type C F7)	M	1cm Muck 2cm Muck Reduced V	LOAM LOAM CLAY LO coblematic H (A9) (A10) ertic (F18) Floodplain S Bright Loa	A A A A A A A A A A A A A A A A A A A		
Depth (inches) 0-5 5-8 8-20 Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) 5cm Mucky Mineral (A7	Color (Moist 10YR 4/2 10YR 5/2 10YR 6/2 Coast Pra Sandy Mt Sandy Gl Sandy Re Stripped I Dark Suf Polyvalue Thin Dark	irie Redox icky Miner syed Matrix dox (S5) Autrix (S6) ace (S7) Below Su	100 100 95 (A16) al (S1) x (S4)		Redox Dark: Depleted Dar Redox Depre Marl (F10) Depleted Ocl Iron-Mangan Umbric Surfa	% Surface (F6) rk Surface (F8) hric (F11) lesse Masses ace (F13) (F17)	Type C F7)	M	1cm Muck 2cm Muck Reduced V Piedmont F Anomalous Red Parent	LOAM LOAM LOAM CLAY LO coblematic H (A9) (A10) ertic (F18) Floodplain S Bright Loa Material (C	A A A A A A A A A A A A A A A A A A A		
Depth (inches) 0-5 5-8 8-20 Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) 5cm Mucky Mineral (A7 Muck Presence (A8) 1 cm Muck (A9) Depleted Below Dark Su	Color (Moist 10YR 4/2 10YR 5/2 10YR 6/2	irie Redox icky Miner syed Matrix dox (S5) Matrix (S6) ace (S7) Below Sur Surface (S	100 100 95 (A16) al (S1) x (S4) rface (S8) 39) ral (F1)		Redox Dark: Depleted Dar Redox Depre Marl (F10) Depleted Ocl Iron-Mangan Umbric Surfa	Surface (F6) rk Surface (I) essions (F8) hric (F11) less Masses ace (F13) (F17) ttic (F18)	Type C C F7)	M	1cm Muck 2cm Muck Reduced V Piedmont F Anomalous Red Parent	LOAM LOAM LOAM CLAY LO coblematic H (A9) (A10) ertic (F18) Floodplain S Bright Loa Material (C	And		
Depth (inches) 0-5 5-8 8-20 Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) 5cm Mucky Mineral (A7 Muck Presence (A8) 1 cm Muck (A9)	Color (Moist 10YR 4/2 10YR 5/2 10YR 6/2	irie Redox icky Miner eyed Matrix dox (S5) Matrix (S6) ace (S7) Below Suu Surface (Sucky Mine eyed Matrix	100 100 95 (A16) al (S1) x (S4) rface (S8) 59) ral (F1) ix (F2)		Redox Dark: Depleted Dar Redox Depre Marl (F10) Depleted Ocl Iron-Mangan Umbric Surfa Delta Ochric Reduced Ver	Surface (F6) rk Surface (I essions (F8) hric (F11) uses Masses ace (F13) (F17) rtic (F18) podplain Soi	Type C F7) (F12)	M	1cm Muck 2cm Muck Reduced V Piedmont F Anomalous Red Parent Very Shallo	LOAM LOAM LOAM CLAY LO coblematic H (A9) (A10) ertic (F18) Floodplain S Bright Loa Material (C	And		
Depth (inches) 0-5 5-8 8-20 Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) 5cm Mucky Mineral (A7 Muck Presence (A8) 1 cm Muck (A9) Depleted Below Dark Su Thick Dark Surface (A12	Color (Moist 10YR 4/2 10YR 5/2 10YR 6/2 Coast Pra Sandy Mt Sandy Gle Sardy Re Stripped I Dark Surf Polyvalue Thin Dark Loamy M rface (A: Loamy G	irie Redox icky Miner eyed Matrix dox (S5) Matrix (S6) ace (S7) Below Suu Surface (Sucky Mine eyed Matrix	100 100 95 (A16) al (S1) x (S4) rface (S8) 59) ral (F1) ix (F2)	107	Redox Dark : Depleted Dar Redox Depre Marl (F10) Depleted Ocl Iron-Mangan Umbric Surfa Delta Ochric Reduced Ver Piedmont Flc Anomalous E	Surface (F6) rk Surface (F8) hric (F11) lesse Masses ace (F13) (F17) tit (F18) loodplain Soi Bright Loam	Type C (F12) (F12) Is (F19) y Soils (F20)	M	1cm Muck 2cm Muck Reduced V Piedmont F Anomalous Red Parent Very Shallo	LOAM LOAM LOAM CLAY LO coblematic H (A9) (A10) ertic (F18) Floodplain S Bright Loa Material (C	And		
Depth (inches) 0-5 5-8 8-20 Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) 5cm Mucky Mineral (A7 Muck Presence (A8) 1 cm Muck (A9) Depleted Below Dark Su	Color (Moist 10YR 4/2 10YR 5/2 10YR 6/2 Coast Pra Sandy Mt Sandy Gle Sardy Re Stripped I Dark Surf Polyvalue Thin Dark Loamy M rface (A: Loamy G	irie Redox icky Miner eyed Matrix dox (S5) Matrix (S6) ace (S7) Below Suu Surface (Sucky Mine eyed Matrix	100 100 95 (A16) al (S1) x (S4) rface (S8) 59) ral (F1) ix (F2)		Redox Dark : Depleted Dar Redox Depre Marl (F10) Depleted Ocl Iron-Mangan Umbric Surfa Delta Ochric Reduced Ver Piedmont Flo	Surface (F6) rk Surface (F8) hric (F11) lesse Masses ace (F13) (F17) tit (F18) loodplain Soi Bright Loam	Type C (F12) (F12) Is (F19) y Soils (F20)	M	1cm Muck 2cm Muck Reduced V Piedmont F Anomalous Red Parent Very Shallo	LOAM LOAM LOAM CLAY LO coblematic H (A9) (A10) ertic (F18) Floodplain S Bright Loa Material (C	And		



Stantec				D DELINE		Section/Township/Range: N/A					
	Applicant: VIF ty/County:	GINIA DEPA	VIRGINIA		ARY AFFAI	IRS	-	LRR or MLRA):		N/A T	
C.	State:	<u> </u>	VIRG				- Buoregion (Site Latitude:		36.816431°)
Inve	stigator(s):		B. YO				<u>-</u>	Site Longitude:		-75.97849°	
	Date:		10/12/	2017			Soil	Map Unit Name:	СНА	PANOKE SIL	ΓLOAM
Summary of Findings:					WETI AND	RELOWE	LAG 'KPH-6'				
	tic Vegetation is Present:	X				rcumstances:		NWI Classificat	ion:	N/A	
	Hydric Soils are Present:	X		Disturbed F	Parameters (se			Local Re		CONCAVE	3
Wetla	nd Hydrology is Present:	X	I	Problematic F	arameters (se	ee Remarks):		Landfo	orm:	SLOPE	
	ea is within a Wetland:	X	Atypi	cal Climate/I	Hydrology (se	ee Remarks):		Slope	%:	1-3	
Hydrology Parameter:							1				
	Pri	mary Indicators	<u>: </u>						econdary Indi l Cracks (B6)	cators:	
Surface Water (A1)		Water Stained I	eaves (B9)					. ,	ve Surface (B8	9)
High Water Table (A2)	Aquatic Fauna		"					atterns (B10)		,
Saturation (A3)		Marl Deposits ((B15)					Moss Trim	Lines (B16)		
Water Marks (B1)		Hydrogen Sulfi							Water Table ((C2)	
Sediment Deposits (B2 Drift Deposits (B3)		Oxidized Rhizo Presence of Rec	•	_	s (C3)			Crayfish B		al Imagery (C9	n
Algal Mat or Crust (B	4)	Recent Iron Rec			(C6)				Stressed Plants		,
Iron Deposits (B5)	_	Thin Muck Sur						X Geomorphi			
Inundation Visible on	Aerial Imagery (B7)	Other						Shallow Ac			
								X FAC-Neutr			
Water Depths (inches):				Remarks:	HADBUL	OCY DADA	L METER MET	Sphagnum	woss (D8)		
Surface Water	r:			ACHIMINS.	III DRUL(JJIIAKAI	VIELEN MEL	•			
Water Tabl											
Saturated so	1: >20										
Vegetation Parameter:											
Domina	nt Species	Stratum	IND	%		Non-Do	minant Specie	s	Stratum	IND	%
	ar styraciflua	Tree	FAC	25			s americana		Tree	FAC	5
	rubrum rubrum	Tree Sapling	FAC FAC	20 15		Pii	nus taeda		Shrub	FAC	5
Morello	a cerifera	Shrub	FAC	45							
	sempervirens bolutescens	Herbaceous Herbaceous	FAC FACW	5 5							
	tundifolia	Herbaceous	FAC	5							
% Dominar	t species FAC or wetter:	100%					F	Prevalence Index:	3.0		
NOTE: SPECIES INDIC	ATOR STATUS ACCORDING	TO 2016 NATIONAL	WETLAND	PLANT LIST			Calculated	l using all species pre	sent.		
Rapid Test for Hydrophy		-		Remarks:	VEGETAT	TON PARA	METER MET	Γ•			
	nce Test >50%: X	-									
Problematic Hydrophy	Index is ≤ 3.0: X	=			U.	NIDENTIFIE	ED DOMINAN	T SPECIES OF C	CAREX (5%) P	RESENT.	
1 Toolemade Trydrophi	the regetation.	-									
Soil Parameter:				•							
		Iatrix			25.1.3	Redox Fea					
Depth (inches) 0-6	Color (Mois 10YR 5/2	ı)	100	Color	(Moist)	%	Type	Loc		CLAY LOA	M
6-20	5Y 6/1		85	108	7R 6/8	15	С	M		CLAY LOAI	
	51 5,1			13.		1				2071	
											_
**											
Hydric Soil Indicators:		5 1 /11			D 1 D 1	6 6 200		-	I		
Histosol (A1) Histic Epipedon (A2)		airie Redox (A1 Iucky Mineral (S		_	_	Surface (F6) ark Surface (I		Ir	aicators for Pi	roblematic Hyd	ric Sous
Black Histic (A3)		leyed Matrix (S		_		ressions (F8)	17)		1cm Mucl	c (A9)	
Hydrogen Sulfide (A4		edox (S5)			Marl (F10)	,		•	2cm Mucl		
Stratified Layers (A5)	Stripped	Matrix (S6)			Depleted Oc	chric (F11)			Reduced V	Vertic (F18)	
Organic Bodies (A6)		rface (S7)			_	nese Masses	(F12)			Floodplain Soi	
5cm Mucky Mineral (A		e Below Surface	e (S8)		Umbric Suri					s Bright Loam	
Muck Presence (A8) 1 cm Muck (A9)		rk Surface (S9) Mucky Mineral (F1)	_	Delta Ochric Reduced Ve					t Material (TF2 low Dark Surfa	
Depleted Below Dark		Gleyed Matrix (F			_	loodplain Soi	ils (F19)	•	Other	Jun Duile	(** 12)
Thick Dark Surface (A		Matrix (F3)	,		_		y Soils (F20)				
					_		-				
Restrictive Layer (If O				Remarks:	SOIL PAR	AMETER M	MET.				
Typ Depth (inches											
_ cpm (menes	,										

Stantec A		2017 SMR CAMP PENDLETON WETLAND DELINEATION VIRGINIA DEPARTMENT OF MILITARY AFFAIRS					Section/Township/Range: N/A					
	//County:			BEACH	AKI AITAII	KD .		RR or MLRA):		T		
•	State:		VIRG	INIA				Site Latitude:		36.81643	1°	
Invest	rigator(s):		B. YO					Site Longitude:		-75.9784		
	Date:		10/12/	2017			Soil M	Iap Unit Name:	СНА	PANOKE S	LT LOAM	
Summary of Findings:					UPLAND A	ABOVE FL	AG 'KPH-6'.					
	Vegetation is Present:				Normal Circ		X	NWI Classificati		N/A		
	ydric Soils are Present:				Parameters (see			Local Rel		CONVE		
	d Hydrology is Present: a is within a Wetland:				Parameters (see Hydrology (see			Landfo Slope		SLOPE 1-3	5	
Hydrology Parameter:	u is within a wettand.		ткург	ear Cimate,	Tydrology (see	e remarks).		Біоре	70.	13		
, 3,	Pri	mary Indicators:						Se	econdary India	cators:		
G C W (41)		W	(DO)						Cracks (B6)	9.6	DO)	
Surface Water (A1) High Water Table (A2)		Water Stained Lo Aquatic Fauna (I)				· ·	getated Conca tterns (B10)	ve Surface (B8)	
Saturation (A3)		Marl Deposits (E						Moss Trim				
Water Marks (B1)		Hydrogen Sulfid						<u> </u>	Water Table (C2)		
Sediment Deposits (B2)		Oxidized Rhizos Presence of Red			s (C3)			Crayfish Bu		-1 I ()	C0)	
Drift Deposits (B3) Algal Mat or Crust (B4)		Recent Iron Red			(C6)				isible on Aeri tressed Plants		L9)	
Iron Deposits (B5)	_	Thin Muck Surfa			/				Position (D2)			
Inundation Visible on A	erial Imagery (B7)	Other						Shallow Aq				
								FAC-Neutra Sphagnum I				
Water Depths (inches):				Remarks:	HYDROLO	GY PARA	METER NOT N	1 0	1000 (100)			
Surface Water:												
Water Table:												
Saturated soil: Vegetation Parameter:	>20			J								
regetation rarameter.												
Dominan	•	Stratum	IND	%			minant Species		Stratum	IND FACW	5	
Pinus Liquidambar		Tree Tree	FAC FAC	50 15		116	x glabra		Sapling	FACW	3	
Acer rı Liquidambar		Sapling Sapling	FAC FAC	15 15								
Morella		Shrub	FAC	15								
Vitis rotu Lonicera		Herbaceous Herbaceous	FAC FACU	5 5								
Smilax b		Herbaceous	FAC	3								
	. Fig	000/							2.0			
	species FAC or wetter: FOR STATUS ACCORDING		WETLAND 1	PLANT LIST				evalence Index:	3.0	_		
Rapid Test for Hydrophyt				Remarks:	VEGETATI	ION PARA	METER MET.	asing an species pres	· · · · · · · · · · · · · · · · · · ·			
	ce Test >50%: X	- -										
	Index is ≤ 3.0 : X	_										
Problematic Hydrophyt	ic Vegetation:	_										
Soil Parameter:				I								
		Matrix				Redox Fea						
Depth (inches) 0-16	Color (Mois 2.5Y 5/4	st)	100	Color	r (Moist)	%	Type	Loc		Textur LOAM		
16-20	2.5Y 5/2		95	5Y	TR 3/4	5	С	M		CLAY	<u> </u>	
									-			
Undrig Coil Indi]		<u> </u>						
Hydric Soil Indicators: Histosol (A1)	Coast Pr	rairie Redox (A16)		Redox Dark	Surface (E6))	In	dicators for Pr	oblematic H	vdric Soils	
Histic Epipedon (A2)		Iucky Mineral (S			Depleted Dark			In a		matte II	, and sous	
Black Histic (A3)		Gleyed Matrix (S4))		Redox Depre	essions (F8)		_	1cm Muck			
Hydrogen Sulfide (A4)		ledox (S5)		_	Marl (F10)	heio (E11)		-	2cm Muck	. ,		
Stratified Layers (A5) Organic Bodies (A6)		Matrix (S6) rface (S7)		_	Depleted Oct Iron-Mangan		(F12)	-		/ertic (F18) Floodplain S	oils (F19)	
5cm Mucky Mineral (A		ie Below Surface	(S8)	_	Umbric Surfa		(112)	-		s Bright Loa		F20)
Muck Presence (A8)	Thin Da	rk Surface (S9)		_	Delta Ochric	(F17)			Red Paren	t Material (7	F2)	
1 cm Muck (A9)		Mucky Mineral (F		_	Reduced Ver		1	-		low Dark Su	rface (TF12	2)
Depleted Below Dark S Thick Dark Surface (A1		Gleyed Matrix (F2 d Matrix (F3)	2)		Piedmont Flo	-		-	Other			
THICK DAIN SUITACE (AT	Depleted	a 1410011V (1.2)		Anomalous Bright Loamy Soils (F20)								
Restrictive Layer (If Ob	Description (COL II)					Remarks: SOIL PARAMETER NOT MET.						
	served)			INCHIGIAS. SUIL FARANIETER NUT MET.								
Type: Depth (inches):				Remarks:	SOIL PAR	AMETER N	ОТ МЕТ.					



Stantec		MR CAMP PER					C /T-			NT/A		
	y/County:		VIRGINIA		AKI AFFAI	KS		ownship/Range: LRR or MLRA):		N/A T		
City	State:		VIRGI				Subregion (E	Site Latitude:		36.81643	1°	
Inves	tigator(s):		B. YO	UNG				Site Longitude:		-75.9784	9°	
	Date:		10/12/	2017			Soil N	Map Unit Name:	BOJA	C FINE SAN	IDY LOAM	
Summary of Findings:				IIDI A	ND SWALE	WEST OF	LAKE CHRIS	TINE				
	c Vegetation is Present:	X		ULLA		cumstances:		NWI Classificat	tion:	N/A		_
	Iydric Soils are Present:			Disturbed I	arameters (se			Local Re		CONCA	VΕ	
Wetlan	d Hydrology is Present:		F	roblematic I	arameters (se	e Remarks):		Landfo	orm: I	DRAINAGE	WAY	_
•	ea is within a Wetland:		Atypi	cal Climate/I	Hydrology (se	e Remarks):		Slope	e %:	0-1		
Hydrology Parameter:												
	Pri	mary Indicators	:						Secondary Indic il Cracks (B6)	ators:		
Surface Water (A1)		Water Stained	Leaves (B9))					egetated Concar	e Surface (38)	
High Water Table (A2)		Aquatic Fauna						· ·	atterns (B10)			
Saturation (A3)	_	Marl Deposits							Lines (B16)			
Water Marks (B1)		Hydrogen Sulfi							n Water Table (C2)		
Sediment Deposits (B2) Drift Deposits (B3)		Oxidized Rhize Presence of Re	-	-	s (C3)				urrows (C8) Visible on Aeria	l Imagam: (t	70)	
Algal Mat or Crust (B4)		Recent Iron Re			(C6)				Stressed Plants		~ ,	
Iron Deposits (B5)		Thin Muck Sur			/				ic Position (D2)			
Inundation Visible on A	Aerial Imagery (B7)	Other							quitard (D3)			
									al Test (D5)			
Water Depths (inches):				Remarks:	HADBULO	CV DADAN	METER NOT I	Sphagnum	Moss (D8)			
Surface Water	:			remarks.	TIDKOLO	JIIANAN	LEIDRINGI I	*****				
Water Table												
Saturated soil	: >20											
Vegetation Parameter:												
Dominar	at Species	Stratum	IND	%		Non-Doi	ninant Species		Stratum	IND	%	
Acer r	ubrum	Tree	FAC	45		Pir	us taeda		Tree	FAC	10	
Liquidamba Acer r		Tree Shrub	FAC FAC	20 20			era benzoin 'ium dichotomu	***	Shrub Herbaceous	FACW FAC	5 3	
Liquidamba		Shrub	FAC	15		Dienamnei	um uicnoiomu		ricibaccous	TAC	,	
Carya to		Shrub	UPL	10								
Toxicodendr Smilax ro		Herbaceous Herbaceous	FAC FAC	10 5								
Smilax b	ona-nox	Vine	FAC	5								
Smilax ro	tundifolia	Vine	FAC	3								
% Dominant	species FAC or wetter:	89%					Pr	evalence Index:	3.1			
	TOR STATUS ACCORDING		L WETLAND I	PLANT LIST				using all species pre				
Rapid Test for Hydrophy		_		Remarks:	VEGETAT	ION PARA	METER MET.					
	ce Test >50%: X	=										
Prevalence Problematic Hydrophyt	Index is ≤ 3.0:	_										
Froblematic Hydrophy	ne vegetation.	_										
Soil Parameter:												
		Matrix		~ .		Redox Feat		-		m .		
Depth (inches) 0-1	Color (Mois 10YR 3/3		100	Color	(Moist)	%	Type	Loc		Textur- LOAM		
1-14	10YR 5/3		100							LOAM		_
14-20	10YR 6/3		90	7.5	YR 5/8	10	С	M		CLAY LO		
TT 1: 0 11 F												
Hydric Soil Indicators: Histosol (A1)	Coast D	airie Redox (A1	6)		Redox Dorl	Surface (F6)		r.	ndicators for Pr	ohlematic U	vdric Soils	 -⊦
Histic Epipedon (A2)		fucky Mineral (S		_	_	rk Surface (Fo)		17	idicators for 1 i	жетине 11	yarıc sons	
Black Histic (A3)		leyed Matrix (S			Redox Depr		•		1cm Muck	(A9)		
Hydrogen Sulfide (A4)		edox (S5)		_	Marl (F10)				2cm Muck			
Stratified Layers (A5)		Matrix (S6)			Depleted Oc		(F12)		Reduced V		T (F10)	
Organic Bodies (A6)		rface (S7)	o (C 2)		_	nese Masses	(F12)			Floodplain S		
5cm Mucky Mineral (A Muck Presence (A8)		ie Below Surfac rk Surface (S9)	(56)		Umbric Surf Delta Ochric					Bright Loa Material (T	my Soils (F20) F2)	
1 cm Muck (A9)		Mucky Mineral (F1)	_	Reduced Ve						rface (TF12)	
Depleted Below Dark S		Gleyed Matrix (I		_	Piedmont Fl		ls (F19)		Other		` '	
Thick Dark Surface (A1		d Matrix (F3)		_	Anomalous							
					·		OM 1 47					
Restrictive Layer (If Ob	(served)			Remarks:	SOIL PARA	AMETER N	OT MET					
Type						IIII III II	OI WILL.					



Stantec A		IR CAMP PE					G .: 1	m 1: m		NT/A							
	Applicant: VIR //County:	GINIA DEPA	VIRGINIA		AKT AFFAII	KS		Township/Range: (LRR or MLRA):		N/A T							
	State:		VIRG				buoregion	Site Latitude:		36.81643	31°						
Invest	rigator(s):		B. YO					Site Longitude:		-75.9784	19°						
	Date:		10/12/	2017			Soil	Map Unit Name:	ACI	REDALE SI	LT LOAN	Л					
Summary of Findings:					UPLAND SO	OUTH OF F	LAG 'KPL-4'.										
	Vegetation is Present:	X			Normal Circ			NWI Classificat	ion:	N/A							
Н	ydric Soils are Present:	X			Parameters (see			Local Re	lief:	NONI							
	d Hydrology is Present:				Parameters (see			Landfo		FLAT	•						
Sampled Are Hydrology Parameter:	a is within a Wetland:		Atypı	cal Climate/l	Hydrology (see	e Remarks):		Slope	e %:	0-1							
nyurology rarameter:	Prin	nary Indicators						S	econdary Indi	cators:		-					
									l Cracks (B6)								
Surface Water (A1)		Water Stained)				· ·	egetated Conca	ve Surface ((B8)						
High Water Table (A2) Saturation (A3)		Aquatic Fauna Marl Deposits							atterns (B10) Lines (B16)								
Water Marks (B1)		Hydrogen Sulfi		(1)					Water Table (C2)							
Sediment Deposits (B2)		Oxidized Rhize			ts (C3)			Crayfish B		/							
Drift Deposits (B3)		Presence of Re							Visible on Aeri		(C9)						
Algal Mat or Crust (B4) Iron Deposits (B5)		Recent Iron Re Thin Muck Sur		Filled Soils	(C6)				Stressed Plants c Position (D2)								
Inundation Visible on A		Other	race (C7)						juitard (D3)	,							
	<u> </u>							FAC-Neutr	al Test (D5)								
W . B . J . C . S				n ·	HVBB CT -	OV B . S . S	ALTER NO.	Sphagnum	Moss (D8)								
Water Depths (inches): Surface Water:				Remarks:	HYDROLO	GY PARAN	METER NOT	MET.									
Water Table:																	
Saturated soil:	>20																
Vegetation Parameter:																	
Dominan	t Species	Stratum	IND	%		Non-Dor	minant Specie	es	Stratum	IND	%						
Pinus		Tree	FAC	30		Que	rcus rubra		Tree	FACU	5						
Acer ri Acer ri		Tree Sapling	FAC FAC	25 15													
Pinus		Shrub	FAC	5													
Acer ri Vitis rotu		Shrub Herbaceous	FAC FAC	5 5													
Lonicera	japonica	Herbaceous	FACU	5													
Smilax roi Smilax roi		Herbaceous Vine	FAC FAC	5													
Smitter 101	inaijona	v inc	TAC	3													
% Dominant	species FAC or wetter:	89%					1	Prevalence Index:	3.1								
	FOR STATUS ACCORDING T		. WETLAND	PLANT LIST				ed using all species pre		-							
Rapid Test for Hydrophyt	ic Vegetation:			Remarks:	VEGETATI	ION PARA	METER MET	Т.									
	ce Test >50%: X																
	Index is \leq 3.0:																
Problematic Hydrophyt	ic vegetation.																
Soil Parameter:												-					
		latrix		~ .		Redox Feat											
Depth (inches) 0-8	Color (Moist 7.5YR 4/2	:)	100	Color	r (Moist)	%	Type	Loc		Textur LOAN							
8-20	10YR 6/1		95	10	YR 6/8	5	С	M		LOAN							
		L															
Hydric Soil Indicators:																	
Histosol (A1)	Coast Pra	nirie Redox (A1	6)		Redox Dark	Surface (F6)	1	Ir	dicators for Pr	ohlematic F	Jydric So.	ils					
Histic Epipedon (A2)		ucky Mineral (S		_	Depleted Dar						.,						
Black Histic (A3)		eyed Matrix (S	4)	_	Redox Depre	essions (F8)			1cm Muck								
Hydrogen Sulfide (A4)	Sandy Re			_	Marl (F10)	bein (E11)			2cm Muck								
Stratified Layers (A5) Organic Bodies (A6)	Dark Sur	Matrix (S6) face (S7)		_	Depleted Och Iron-Mangan		(F12)	-		Vertic (F18) Floodplain S		9)					
5cm Mucky Mineral (A		e Below Surfac	e (S8)		Umbric Surfa		()	•		s Bright Lo							
Muck Presence (A8)	Thin Dar	k Surface (S9)		_	Delta Ochric	(F17)	Red Parent Material (TF2)										
1 cm Muck (A9)		lucky Mineral (Reduced Ver		I- (E10)			low Dark Su	ırface (TF	(12)					
Depleted Below Dark S Thick Dark Surface (A1		leyed Matrix (I Matrix (F3)	·2)	_	Piedmont Flo Anomalous I				Other								
inick Dark Surface (Al	2) A Depleted	1710U1A (F3)			- Anomaious I	ongin Duilli	, 50118 (F2U)										
Restrictive Layer (If Ob	served)			Remarks:	SOIL PARA	AMETER M	IET.	•									
Type:																	
Depth (inches):				<u> </u>													



Stantec A					TARY AFFAII						
	y/County:	011 (11 1 1 1 1	VIRGINIA			113	-	LRR or MLRA):		T	
	State:		VIRG					Site Latitude:		36.816431°	
Inves	tigator(s):		B. YO				- '	Site Longitude:	-	-75.97849°	
	Date:		10/12/	/2017			Soil N	Map Unit Name:	ACF	REDALE SILT LO	OAM
Summary of Findings:					UPLAND	ABOVE FI	AG 'KPJ-7'.				
Hydrophyti	c Vegetation is Present:	X			Normal Cir	cumstances:	X	X NWI Classification: N/A			
H	lydric Soils are Present:	X		Disturbed	Parameters (see	e Remarks):	<u> </u>	Local Re	elief:	NONE	
Wetlan	d Hydrology is Present:]	Problematic	Parameters (see	e Remarks):		Landf	Landform: FLAT		
Sampled Are	a is within a Wetland:		Atypi	ical Climate	/Hydrology (se	e Remarks):		Slop	e %:	0-1	
Hydrology Parameter:											
	Prin	nary Indica	tors:					ļ	Secondary India	cators:	
									il Cracks (B6)		
Surface Water (A1)			ed Leaves (B9))				·	•	ive Surface (B8)	
High Water Table (A2)		Aquatic Fa	. ,						Patterns (B10)		
Saturation (A3)		Marl Depos							Lines (B16)		
Water Marks (B1)			Sulfide Odor (C						n Water Table ((C2)	
Sediment Deposits (B2)			hizospheres on		ots (C3)				Surrows (C8)		
Drift Deposits (B3)			Reduced Iron							ial Imagery (C9)	
Algal Mat or Crust (B4)			Reduction in	Tilled Soils	(C6)				Stressed Plants		
Iron Deposits (B5)			Surface (C7)						ic Position (D2))	
Inundation Visible on A	Aerial Imagery (B7)	Other							quitard (D3)		
									ral Test (D5)		
Weten D. d. C. J. A.				n	IIVBBOLO	MAN DAD	METER NOT	1 6	Moss (D8)		
Water Depths (inches):				Remarks:	HYDKOLO	JGY PARA	METER NOT	VIE I.			
Surface Water				1							
Water Table				1							
Saturated soil	: >20										
Vegetation Parameter:											
Dominan	t Species	Stratun	ı IND	%		Non-Do	minant Species		Stratum	IND %	,
Pinus	•	Tree	FAC	25			•				
Acer re		Tree	FAC	15							
Liquidamba		Sapling		10							
Liquidamba Smilax ro		Shrub Herbaceo	us FAC	10 5							
Campsis		Herbaceo		3							
Smilax b		Herbaceo		3							
	species FAC or wetter:							revalence Index:		_	
	TOR STATUS ACCORDING T	TO 2016 NATIO	ONAL WETLAND	_	VE CET LE	TON BABA	Calculated :	using all species pr	esent.		
Rapid Test for Hydrophyt	ce Test >50%: X	•		Remarks:	VEGETATI	ION PAKA	METER MET.				
	Index is ≤ 3.0: X										
Problematic Hydrophyt	ic Vegetation:										
Soil Parameter:											
Son I arameter.	N			T		Redox Fea	tures				
Depth (inches)	Color (Mois		%	Colo	or (Moist)	%	Туре	Loc		Texture	
0-6	10YR 4/2	,	100				7.			LOAM	
6-20	5Y 7/1		90	10	YR 5/4	10	С	M		LOAM	
							-				
Hydric Soil Indicators:											
Histosol (A1)	Coast Pra	airie Redox	(A16)		Redox Dark	Surface (F6)	I	ndicators for Pr	roblematic Hydric	Soils
Histic Epipedon (A2)	Sandy M	ucky Miner	al (S1)		Depleted Da	ark Surface (F7)				
Black Histic (A3)					Redox Depre	essions (F8)			1cm Muck	c (A9)	
Hydrogen Sulfide (A4)				_	Marl (F10)				2cm Muck	s (A10)	
Stratified Layers (A5)					Depleted Oc	chric (F11)			Reduced V	Vertic (F18)	
Organic Bodies (A6)	Dark Sur	face (S7)			Iron-Mangar	nese Masses	(F12)		Piedmont	Floodplain Soils ((F19)
5cm Mucky Mineral (A	7) Polyvalu	e Below Su	rface (S8)		Umbric Surf	face (F13)			Anomalou	is Bright Loamy S	Soils (F20)
Muck Presence (A8)	Thin Dar	k Surface (S	S9)	Delta Ochric (F17) Red Parent Material (TF2)							
1 cm Muck (A9)	Loamy N	lucky Mine	ral (F1)	Reduced Vertic (F18) Very Shallow Dark Surface (TF:					(TF12)		
Depleted Below Dark S	urface (AlLoamy C	leyed Matr	ix (F2)		Piedmont Flo	oodplain Soi	ils (F19)		Other		
Thick Dark Surface (A1	2) X Depleted	Matrix (F3)	Anomalous Bright Loamy Soils (F20)							
Restrictive Layer (If Ob				Remarks: SOIL PARAMETER MET.							
Туре				1							
Depth (inches)											



Stantec A		CAMP PENDLETO NA DEPARTMEN				Section/Township/Range: N/A				
	/County:		IA BEACH		rus		RR or MLRA):		T	
•	State:	VIR	GINIA			-	Site Latitude:		36.816431°	
Invest	igator(s):		UPIEC				Site Longitude:		-75.97849°	
	Date:	10/1	6/2017			Soil N	Iap Unit Name:	ACI	REDALE SILT LO	AM
Summary of Findings:				WETLAND	NEAR FLA	G 'KPO-13'.				
Hydrophytic	Vegetation is Present:	X		Normal Circ	cumstances:	X	NWI Classificati		N/A	
· ·	ydric Soils are Present:	X		Parameters (see	_		Local Rel	-	NONE	
	Hydrology is Present: a is within a Wetland:	X Aty		Parameters (see	_		Landfo		FLAT 0-1	
Hydrology Parameter:	a is within a wettand:	A Aty	picai Ciiniate	/Hydrology (see	e Kemarks).		Slope	70.	0-1	
Trydrology Farameter:	Primary	Indicators:					Se	condary Indi	cators:	
							Surface Soil	Cracks (B6)		
Surface Water (A1)		ter Stained Leaves (I	39)						ve Surface (B8)	
High Water Table (A2) Saturation (A3)		atic Fauna (B13) d Deposits (B15)				,	Moss Trim	tterns (B10)		
Water Marks (B1)		lrogen Sulfide Odor	(C1)			•		Water Table (C2)	
Sediment Deposits (B2)		dized Rhizospheres		ots (C3)		•	Crayfish Bu	rrows (C8)		
Drift Deposits (B3)		sence of Reduced Iro				,			al Imagery (C9)	
Algal Mat or Crust (B4) Iron Deposits (B5)		ent Iron Reduction is n Muck Surface (C7)		(C6)		•	X Geomorphic	tressed Plants		
Inundation Visible on A			,				Shallow Aq		,	
						•	FAC-Neutra			
							Sphagnum 1	Moss (D8)		
Water Depths (inches): Surface Water:			Remarks:	HYDROLO	OGY PARAM	IETER MET.				
Water Table:										
Saturated soil:										
Vegetation Parameter:										
Dominan	Species	Stratum IND	%		Non-Don	ninant Species		Stratum	IND %	7
Pinus i	aeda	Tree FAC	60		Liquidami	bar styraciflua		Tree	FAC 25	1
Acer ru Pinus i		Tree FAC Sapling FAC			Nyssa	ı sylvatica		Tree	FAC 25	
Smilax rot	undifolia H	erbaceous FAC	15							
Lonicera j Chasmanthiu		erbaceous FACU erbaceous FAC								
Osmunda s		erbaceous OBL								
0/ Di		9.60/				D.,	1 Td	2.0		
I .	species FAC or wetter: OR STATUS ACCORDING TO 20	86% 16 NATIONAL WETLAN	D PLANT LIST				evalence Index: using all species pres	3.0 ent.	=	
Rapid Test for Hydrophyti			Remarks:	VEGETATI	ION PARAM	TETER MET.	8			
Dominano	e Test >50%: X									
	ndex is ≤ 3.0 : X									
Problematic Hydrophyti	c Vegetation:									
Soil Parameter:										
	Matr	ix			Redox Feat	ures				
Depth (inches)	Color (Moist)	%	Colo	or (Moist)	%	Type	Loc		Texture	
0-2 2-20	10YR 3/3 2.5Y 5/2	100 80	10	OYR 4/6	15	С	M		LOAM CLAY LOAM	
2-20	2.31 3/2	80)YR 5/8	5	C	PL		CLAT LOAM	
								-		
Hydric Soil Indicators:		D 1 (115)		D 1 ~ :	0.6.77		T -	7	,,	9 17
Histosol (A1) Histic Epipedon (A2)		Redox (A16) v Mineral (S1)	-		Surface (F6) ark Surface (F	7)	In	aicators for Pi	roblematic Hydric !	ootls
Black Histic (A3)		Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4)			essions (F8)	')		1cm Mucl	(A9)	
Hydrogen Sulfide (A4)	Sandy Redox			Marl (F10)			1 _	2cm Mucl	(A10)	
Stratified Layers (A5)	Stripped Mat		_	Depleted Oc			_		Vertic (F18)	
Organic Bodies (A6)		Dark Surface (S7) Polyvalue Below Surface (S8)			nese Masses (F12)	_		Floodplain Soils (F	
5cm Mucky Mineral (A? Muck Presence (A8)	Thin Dark Su		_	Umbric Surfa Delta Ochric			-		s Bright Loamy So t Material (TF2)	IIS (F20)
1 cm Muck (A9)		y Mineral (F1)	_	Reduced Ver			-		low Dark Surface (TF12)
Depleted Below Dark St	urface (A Loamy Gleye	ed Matrix (F2)	Piedmont Floodplain Soils (F19) Other							
Thick Dark Surface (A1	2) X Depleted Ma	trix (F3)	Anomalous Bright Loamy Soils (F20)							
Restrictive Layer (If Obs	served)		Romarks: SOII PARAMETER MET							
Type:	crrcuj		Remarks: SOIL PARAMETER MET.							
	Type: Depth (inches):									



Stantec			PENDLETON PARTMENT				Section/T	ownship/Range:		N/A	
	y/County:	OINIA DE	VIRGINIA		AKT AITAI	Ko		LRR or MLRA):		T	
Cit	State:		VIRGINI				Subregion (i	Site Latitude:		36.816431°	
Inves	tigator(s):		S. KU					Site Longitude:		-75.97849°	
	Date:		10/16/				Soil !	Map Unit Name:	AC	REDALE SILT LOAN	Л
								•			
Summary of Findings:							G 'KPO-13'.				
	c Vegetation is Present:	X				cumstances:	X	NWI Classificat		N/A	
	lydric Soils are Present:	X			Parameters (se			Local Re		NONE	
	d Hydrology is Present:				Parameters (se			Landfo		FLAT	
	ea is within a Wetland:		Atypi	cai Climate/	Hydrology (see	e Kemarks):		Slope	%:	0-1	
Hydrology Parameter:	Pris	mary Indica	tors			1			econdary Indi	icators	
	1111	пигу тинси	ws.						Cracks (B6)	tuors.	
Surface Water (A1)		Water Stain	ed Leaves (B9)						ave Surface (B8)	
High Water Table (A2)		Aquatic Fau		,				_ · ·	tterns (B10)	` ′	
Saturation (A3)		Marl Depos	sits (B15)					Moss Trim	Lines (B16)		
Water Marks (B1)		Hydrogen S	Sulfide Odor (C	(1)				Dry-Season	Water Table	(C2)	
Sediment Deposits (B2)		Oxidized R	hizospheres on	Living Roo	ts (C3)			Crayfish Bu	irrows (C8)		
Drift Deposits (B3)		_	Reduced Iron							ial Imagery (C9)	
Algal Mat or Crust (B4		-	Reduction in	Filled Soils	(C6)				Stressed Plants		
Iron Deposits (B5)		-	Surface (C7)					X Geomorphi)	
Inundation Visible on A	teriai imagery (B7)	Other						Shallow Aq FAC-Neutr			
								Sphagnum 1			
Water Depths (inches):				Remarks:	HYDROLO	OGY PARAN	METER NOT	1 0	(= 0)		
Surface Water	:										
Water Table	:										
Saturated soil	: >20										
Vegetation Parameter:											
Dominor	at Species	Stratun	ı IND	0/		Non Dor	ninant Engaine	,	Stratum	IND %	
Pinus	•	Tree	FAC	65			ninant Species r rubrum)	Tree	IND % FAC 25	
Diospyros		Tree	FAC	40							
Cornus		Sapling		15							
Liquidamba Ligustrui		Sapling Shrub	FAC FAC	5 15							
Morella		Shrub	FAC	10							
Elymus v		Herbaceo	us FAC	20							
Dichantheliu		Herbaceo		20							
Lonicera	japonica	Herbaceo	us FACU	10							
		I	ı								
% Dominant	species FAC or wetter:	78%					P	revalence Index:	3.0		
NOTE: SPECIES INDICA	TOR STATUS ACCORDING	TO 2016 NATIO	ONAL WETLAND	PLANT LIST			Calculated	using all species pre	sent.		
Rapid Test for Hydrophy		_		Remarks:	VEGETAT	ION PARAM	METER MET.	•			
	ce Test >50%: X	_									
	Index is ≤ 3.0 :										
Problematic Hydrophy	tic Vegetation:										
G. II.D.											
Soil Parameter:		f		ı		D. L. E.					
Depth (inches)	Color (Mois	Matrix	%	Color	r (Moist)	Redox Feat	Type	Loc		Texture	
0-2	10YR 3/2	l)	100	Colo	(Wioist)	/0	Туре	Loc		LOAM	
2-6	10YR 5/2		100							CLAY LOAM	
6-20	10YR 6/2		85	10	YR 5/6	15	С	M		CLAY LOAM	
- - -	-5110/2			1.0		1					
Hydric Soil Indicators:	•			-							
Histosol (A1)	Coast Pra	airie Redox	(A16)		Redox Dark	Surface (F6)		In	dicators for P	roblematic Hydric Soi	ls
Histic Epipedon (A2)	Sandy M	lucky Miner	al (S1)	_	Depleted Da	ark Surface (F	7)				
Black Histic (A3)	Sandy G	leyed Matrix	x (S4)	_	Redox Depre	essions (F8)		_	1cm Mucl	k (A9)	
Hydrogen Sulfide (A4)		edox (S5)		_	Marl (F10)				2cm Mucl		
Stratified Layers (A5)		Matrix (S6)			Depleted Oc					Vertic (F18)	
Organic Bodies (A6)		rface (S7)		_	_	nese Masses ((F12)	-		Floodplain Soils (F19	
5cm Mucky Mineral (A		e Below Sur			Umbric Surf					us Bright Loamy Soils	(F20)
Muck Presence (A8)		rk Surface (S		-	Delta Ochric		Red Parent Material (TF2)			212)	
1 cm Muck (A9)		Mucky Mine Gleyed Matri		Reduced Vertic (F18) Piedmont Floodplain Soils (F19) Very Shallow Dark Surface Other				low Dark Surface (TF	14)		
Depleted Below Dark S Thick Dark Surface (A)		•		_	_	oodpiain Soil Bright Loamy		-	Other		
I mek Dark Surface (A	A Depleted	viatiiA (F3 _.	,	_	_ ranomatous I	Pugur Pogui	, Jons (1·20)				
Restrictive Layer (If Ob	served)			Remarks:	SOIL PAR	AMETER M	ET.	J			
				Ro.							
	Type: Depth (inches):										



Stantec		MR CAMP PEN								****	
	Applicant: VII ty/County:	RGINIA DEPAF V		A BEACH	ARY AFFAI	RS		Township/Range: LRR or MLRA):		N/A T	
Ci	State:	•	VIRG				. Buolegion (Site Latitude:		36.816431°	
Inve	stigator(s):		B. YO					Site Longitude:		-75.97849°	
	Date:		10/12/	2017			Soil	Map Unit Name:	AC	REDALE SILT L	OAM
Summary of Findings:					WETI AND	RELOW E	'LAG 'KPJ-8'.				
	ic Vegetation is Present:	X				cumstances:		NWI Classificati	on:	N/A	
	Hydric Soils are Present:			Disturbed P	arameters (se			Local Rel		CONCAVE	
	nd Hydrology is Present:		I	Problematic P	arameters (se	e Remarks):		Landfo	rm:	DRAINAGEWA'	Y
	ea is within a Wetland:	X	Atypi	ical Climate/H	Iydrology (se	e Remarks):		Slope	%:	0-1	
Hydrology Parameter:											
	Pri	mary Indicators:							econdary Indi Cracks (B6)	icators:	
Surface Water (A1)	X	Water Stained L	eaves (B9)						ave Surface (B8)	
High Water Table (A2		Aquatic Fauna (,	,					atterns (B10)	(3,	
Saturation (A3)		Marl Deposits (I	B15)					Moss Trim	Lines (B16)		
Water Marks (B1)	<u> </u>	Hydrogen Sulfid							Water Table	(C2)	
Sediment Deposits (B2 Drift Deposits (B3)		Oxidized Rhizos Presence of Red	-		(C3)			Crayfish Bu		ial Imagery (C9)	
Algal Mat or Crust (B4		Recent Iron Red			C6)				Stressed Plants		
Iron Deposits (B5)	· —	Thin Muck Surfa			/			X Geomorphic			
Inundation Visible on .	Aerial Imagery (B7)	Other						Shallow Aq	uitard (D3)		
								X FAC-Neutra			
Water D. d. C. 1				In 1	IIVPPOT	OW DAD (Medier sam	Sphagnum 1	Moss (D8)		
Water Depths (inches): Surface Wate	r:			Remarks:	HIDKOLO	GI PAKA	METER MET	•			
Water Table											
Saturated soi											
Vegetation Parameter:											
Domina	nt Species	Stratum	IND	%		Non-Do	minant Species	e [Stratum	IND %	\neg
	rubrum	Tree	FAC	65			nus taeda	,	Tree	FAC 10	
	halimifolia	Shrub	FAC	15							
	s taeda um vimineum	Shrub Herbaceous	FAC FAC	5 10							
Juncus	effusus	Herbaceous	OBL	5							
Smilax re	otundifolia	Herbaceous	FAC	3							
							_				
	t species FAC or wetter: ATOR STATUS ACCORDING		THE PERSON AND THE	DV A NUTE V VOITE				Prevalence Index:	2.9	_	
Rapid Test for Hydrophy		TO 2016 NATIONAL	WEILAND	Remarks:	VEGETAT	ION PARAI	METER MET	0 1 1	sent.		
	nce Test >50%: X	-		Kemarks.	VEGETAT	IONTAKA	WIETEK WIET	•			
	Index is ≤ 3.0 : X	=									
Problematic Hydrophy		_									
Soil Parameter:		<i>T.</i> 1. 1		T		D. I. E.	4				
Depth (inches)	Color (Mois	Matrix	%	Color	(Moist)	Redox Fea	Type	Loc		Texture	
0-6	10YR 4/3	it)	100	Color	(IVIOISt)	/0	турс	Loc		LOAM	
6-20	10YR 7/1		85	2.5	Y 7/4	15	С	M		LOAM	
								<u> </u>			
·							-		-	·	
YY 1						1					
Hydric Soil Indicators:	C + P	· · · D	2		D.I. D.I	C C (FC)		1 ,	r . c n		C :1
Histosol (A1) Histic Epipedon (A2)		airie Redox (A16 Iucky Mineral (S			Redox Dark Depleted Da			In	dicators for P	roblematic Hydric	: Soils
Black Histic (A3)		lleyed Matrix (S4		-	Redox Depr		17)		1cm Muc	k (A9)	
Hydrogen Sulfide (A4)		edox (S5)	-		Marl (F10)	. ()		-	2cm Muc		
Stratified Layers (A5)	Stripped	Matrix (S6)			Depleted Oc	hric (F11)			Reduced	Vertic (F18)	
Organic Bodies (A6)	Dark Su	rface (S7)			Iron-Mangar		(F12)			Floodplain Soils	
5cm Mucky Mineral (A		ie Below Surface	(S8)		Umbric Surf			_		us Bright Loamy S	Soils (F20)
Muck Presence (A8)		rk Surface (S9)	71)		Delta Ochric			-		nt Material (TF2)	(TE12)
1 cm Muck (A9)		Mucky Mineral (F Gleyed Matrix (F		_	Reduced Ve Piedmont Fl		le (E10)	-	Other	llow Dark Surface	(1112)
Depleted Below Dark : Thick Dark Surface (A		ыеуеа матих (г. d Matrix (F3)	<i>4)</i>	-	_		y Soils (F20)	-	Other		
Zank Burrace (A	,	(10)					, (* 20)				
Restrictive Layer (If O	bserved)			Remarks:	SOIL PAR	AMETER M	ÆT.				
Туро	e:										
Depth (inches):										

	Sta	nte	C
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Stantec A			/ETLAND DELINEA FMILITARY AFFAII		Section/Township/Range: N/A				
	//County:	VIRGINIA BI		χ.		RR or MLRA):			
	State:	VIRGINI	A			Site Latitude:			
Invest	rigator(s):	K. PRESGRA			5	Site Longitude:			
	Date:	8/2/2017	1		Soil M	ap Unit Name:	ACREDALE SILT LOAM		
Summary of Findings:		WE	ETLAND IN A SHALI	OW DEPR	ESSION AT 'K	PA' LINE			
	vegetation is Present: X	1		cumstances:		NWI Classificat	ion: N/A	_	
	ydric Soils are Present: X		sturbed Parameters (see	_		lief: CONCAVE	-		
	d Hydrology is Present: X		lematic Parameters (see	_		Landfo		_	
•	a is within a Wetland: X	Atypical	Climate/Hydrology (see	e Remarks):		Slope	e %: 0-1		
Hydrology Parameter:	Primary Indic	ators:		I		•	econdary Indicators:		
	1 rimary maic	ators.					il Cracks (B6)		
Surface Water (A1)	Water Sta	ined Leaves (B9)			=		egetated Concave Surface (B8)		
High Water Table (A2)		auna (B13)			_		atterns (B10)		
Saturation (A3)	Marl Depo				-		Lines (B16)		
Water Marks (B1) Sediment Deposits (B2)	· ·	Sulfide Odor (C1) Rhizospheres on Liv	ring Poots (C2)		-	X Crayfish B	Water Table (C2)		
Drift Deposits (B3)		of Reduced Iron (C4			-		Visible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)		n Reduction in Tille			· -		Stressed Plants (D1)		
Iron Deposits (B5)		k Surface (C7)			_		c Position (D2)		
Inundation Visible on A	erial Imagery (B7)Other				=		quitard (D3)		
					-	X FAC-Neutr Sphagnum			
Water Depths (inches):		Ro	marks: HYDROLO	GY PARAN	IETER MET.	Spiragitum	141000 (100)	—	
Surface Water:		IX.	IIIDROLO						
Water Table:									
Saturated soil:	16								
Vegetation Parameter:									
Dominan	t Species Stratu	m IND	%	Non-Don	ninant Species		Stratum IND %		
Paspalum	dilatatum Herbace	ous FAC	70		aris obtusa		Herbaceous OBL 10		
					ra anonyma ı virginiana		Herbaceous FACU 6 Herbaceous FACW 5		
					erus iria		Herbaceous FACW 2		
					tyle umbellata		Herbaceous OBL 2		
				Ludwig	gia palustris		Herbaceous OBL 2		
<u> </u>	<u>.</u>								
	species FAC or wetter: 100%					valence Index:	2.7		
	FOR STATUS ACCORDING TO 2016 NAT			ONDIBLE		sing all species pre	sent.		
Rapid Test for Hydrophyt	ce Test >50%: X	Re	marks: VEGETATI	ON PARAN	METER MET.				
	Index is ≤ 3.0 : X								
Problematic Hydrophyt									
Soil Parameter:									
	Matrix			Redox Feat					
Depth (inches)	Color (Moist)	%	Color (Moist)	%	Type	Loc	Texture		
0-1	2.5Y 4/1	100	10VD 5/9	15	С	М	CLAY LOAM CLAY LOAM		
1-16	5Y 5/1	80	10YR 5/8 7.5YR 4/6	15 5	C	M PL	CLAT LUAW		
16-20	10YR 5/1	100	, 10 I K 7/0	-	Č	112	FINE SAND		
				† †					
Hydric Soil Indicators:		•							
Histosol (A1)	Coast Prairie Redo		Redox Dark			Ir	ndicators for Problematic Hydric Soils		
Histic Epipedon (A2)				rk Surface (F	7)				
Black Histic (A3)	Sandy Gleyed Matr	ıx (S4)	Redox Depre	essions (F8)			1cm Muck (A9)		
Hydrogen Sulfide (A4) Stratified Layers (A5)	Sandy Redox (S5)	3	Marl (F10) Depleted Oct	hrio (E11)			2cm Muck (A10)		
Stratified Layers (A5) Organic Bodies (A6)	Stripped Matrix (So Dark Surface (S7)	"	Iron-Mangan		F12)		Reduced Vertic (F18) Piedmont Floodplain Soils (F19)		
5cm Mucky Mineral (A		urface (S8)	Umbric Surfa		. 12)		Anomalous Bright Loamy Soils (F20)		
Muck Presence (A8)	Thin Dark Surface		Delta Ochric		Anomalous Bright Loamy Soils (F20) Red Parent Material (TF2)				
1 cm Muck (A9)	Loamy Mucky Min		Reduced Vertic (F18) Reduced Vertic (F18) Very Shallow Dark Surface (TF12)						
Depleted Below Dark S	urface (A Loamy Gleyed Mat	rix (F2)	Piedmont Floodplain Soils (F19) Other						
Thick Dark Surface (A1	2) X Depleted Matrix (F	3)	Anomalous I	Bright Loamy	Soils (F20)				
n	D.	I.	1 00==:	1 (DOWN					
Restrictive Layer (If Ob.	served)	Re	marks: SOIL PARA	ASSTRACT ASSESSMENT					
				INIETEK M	ET.				
Type: Depth (inches):		-		METER M	ET.				



Stantec	·				ND DELINEA		C + : /T	ownship/Range:		NI/A	
	y/County:	KOINIA DEP	VIRGINIA		ARY AFFAII	KS		LRR or MLRA):		N/A T	
City	State:		VIRG				Buoregion (1	Site Latitude:		36.816431°	
Inves	tigator(s):		K. PRESC	GRAVES				Site Longitude:		-75.97849°	
	Date:		8/2/2	017			Soil I	Map Unit Name:	ACR	EDALE SILT LOA	M
Summary of Findings:					LIDI ANI	D NEAR 'KI	DA'I INE				
	c Vegetation is Present:	. X				cumstances:		NWI Classificat	ion:	N/A	
	Iydric Soils are Present:			Disturbed l	Parameters (see	-		Local Re		NONE	
Wetlan	d Hydrology is Present:		I	Problematic 1	Parameters (see	e Remarks):		Landfo	orm:	FLAT	
	ea is within a Wetland:		Atypi	cal Climate/	Hydrology (see	e Remarks):		Slope	e %:	0-1	
Hydrology Parameter:											
	Pri	mary Indicato	rs:						lecondary Indicate In	ators:	
Surface Water (A1)		Water Stained	d Leaves (B9)					egetated Concav	e Surface (B8)	
High Water Table (A2)	-	Aquatic Faun		,				_ · ·	atterns (B10)		
Saturation (A3)		Marl Deposit	s (B15)					Moss Trim	Lines (B16)		
Water Marks (B1)		Hydrogen Su							Water Table (C	C2)	
Sediment Deposits (B2)		Oxidized Rhi			is (C3)				urrows (C8)	1.1 (CO)	
Drift Deposits (B3) Algal Mat or Crust (B4)		Presence of R Recent Iron F			(C6)				Visible on Aeria Stressed Plants (
Iron Deposits (B5)		Thin Muck S		i incu bons	(00)				c Position (D2)	,51)	
Inundation Visible on A	Aerial Imagery (B7)	Other	(,						quitard (D3)		
		<u>-</u> '							al Test (D5)		
W . B				n :	HINDSOX -	ON D. S.	(CONT.)	Sphagnum 1	Moss (D8)		
Water Depths (inches): Surface Water				Remarks:	HYDROLO	GY PARAN	METER NOT	MET.			
Water Table											
Saturated soil											
Vegetation Parameter:											
Dominor	nt Species	Stratum	IND	%		Non Dor	ninant Species	,	Stratum	IND %	1
Paspalum		Herbaceous		70			a procumbens	'	Herbaceous	UPL 40	
*						Plantag	o lanceolata		Herbaceous	FACU 10	
							lis stricta on dactylon		Herbaceous Herbaceous	UPL 10 FACU 5	
						Cynou	он ийстуюн		Herbaceous	FACU 3	
<u></u>											
% Dominant	species FAC or wetter:	100%					P	revalence Index:	3.9		
NOTE: SPECIES INDICA	TOR STATUS ACCORDING	TO 2016 NATION	AL WETLAND	PLANT LIST			Calculated	using all species pre	sent.		
Rapid Test for Hydrophy		=		Remarks:	VEGETATI	ION PARAM	METER MET.				
	ce Test >50%: X	_									
	Index is ≤ 3.0:	_									
Problematic Hydrophy	tic Vegetation:	_									
Soil Parameter:											
	N	Matrix				Redox Feat	ures	_			
Depth (inches)	Color (Mois		%	Color	r (Moist)	%	Type	Loc		Texture	
0-3 3-15	10YR 4/3 2.5Y 5/2		100 85	7.5	YR 5/8	15	С	M		LOAM CLAY	
15-20	2.3 1 3/Z									CLAY LOAM	
	2.5Y 6/1	l l	98	2.	o Y 5/6	2	C	M			
	2.5Y 6/1		98	2.5	5Y 5/6	2	С	M			
	2.5Y 6/1		98	2.5	5 Y 5/6	2	С	M			
Hydric Soil Indicators:				2.3							
Histosol (A1)	Coast Pi	rairie Redox (A	A16)	2.5	Redox Dark	Surface (F6)			ndicators for Pro	oblematic Hydric So	oils
Histosol (A1) Histic Epipedon (A2)	Coast Pi	Aucky Mineral	A16) (S1)	2.5	Redox Dark Depleted Dar	Surface (F6) rk Surface (F			v	oblematic Hydric So	pils
Histosol (A1) Histic Epipedon (A2) Black Histic (A3)	Coast Pr Sandy M Sandy G	Mucky Mineral Bleyed Matrix (A16) (S1)	2.5	_Redox Dark _Depleted Dar _Redox Depre	Surface (F6) rk Surface (F			1cm Muck	oblematic Hydric So	pils
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4)	Coast Pr Sandy M Sandy G Sandy R	Mucky Mineral Gleyed Matrix (Redox (S5)	A16) (S1)		Redox Dark Depleted Dar Redox Depre	Surface (F6) rk Surface (F essions (F8)			1cm Muck 2cm Muck	oblematic Hydric So (A9) (A10)	oils
Histosol (A1) Histic Epipedon (A2) Black Histic (A3)	Coast Pr Sandy M Sandy G Sandy R Stripped	Mucky Mineral Bleyed Matrix (A16) (S1)		_Redox Dark _Depleted Dar _Redox Depre	Surface (F6) rk Surface (Fessions (F8) hric (F11)	77)		1cm Muck 2cm Muck Reduced V	oblematic Hydric So (A9) (A10)	
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5)	Coast Pt Sandy M Sandy G Sandy G Sandy S Stripped Dark Su	Mucky Mineral Gleyed Matrix (Redox (S5) I Matrix (S6)	A16) (S1) (S4)		Redox Dark Depleted Dar Redox Depre Marl (F10) Depleted Ocl	Surface (F6) rk Surface (F essions (F8) hric (F11) nese Masses (77)		1cm Muck 2cm Muck Reduced V	oblematic Hydric So (A9) (A10) ertic (F18)	9)
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) 5cm Mucky Mineral (A Muck Presence (A8)	Coast Pi Sandy M Sandy G Sandy R Stripped Dark Su 7) Polyvalu Thin Da	Mucky Mineral Bleyed Matrix (Bedox (S5) I Matrix (S6) Irface (S7) Le Below Surfack Irk Surface (S9)	A16) (S1) (S4) ace (S8)		Redox Dark Depleted Dar Redox Depre Marl (F10) Depleted Ocl Iron-Mangan Umbric Surfa	Surface (F6) rk Surface (F8) hric (F11) nese Masses (ace (F13) e (F17)	77)		1cm Muck 2cm Muck Reduced V Piedmont F Anomalous Red Parent	oblematic Hydric Se (A9) (A10) ertic (F18) Floodplain Soils (F1 Bright Loamy Soil Material (TF2)	9) s (F20)
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) 5cm Mucky Mineral (A Muck Presence (A8) 1 cm Muck (A9)	Coast Pr Sandy M Sandy G Sandy R Stripped Dark Stripped Dark ST 7) Polyvalt Thin Da Loamy P	Mucky Mineral Bleyed Matrix (Bedox (S5) I Matrix (S6) Irface (S7) Le Below Surface Lirk Surface (S9) Mucky Minera	M16) (S1) (S4) ace (S8))		Redox Dark Depleted Dar Redox Depre Marl (F10) Depleted Oci Iron-Mangan Umbric Surfa Delta Ochric Reduced Ver	Surface (F6) rk Surface (Feessions (F8) hric (F11) nesse Masses (F13) for (F17) rtic (F18)	7) F12)		1cm Muck 2cm Muck Reduced V Piedmont F Anomalous Red Parent Very Shalle	oblematic Hydric So (A9) (A10) ertic (F18) Floodplain Soils (F1 Bright Loamy Soil	9) s (F20)
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) 5cm Mucky Mineral (A Muck Presence (A8) 1 cm Muck (A9) Depleted Below Dark S	Coast Pr Sandy M Sandy G Sandy R Stripped Dark Su Dark Su Thin Da Loamy I Loamy I Surface (A) Loamy O	Mucky Mineral Gleyed Matrix (Redox (S5) I Matrix (S6) Irface (S7) Lee Below Surfark Surface (S9) Mucky Minera Gleyed Matrix	M16) (S1) (S4) ace (S8))		Redox Dark Depleted Dar Redox Depre Marl (F10) Depleted Ocl Iron-Mangan Umbric Surfa Delta Ochric Reduced Ver Piedmont Flo	Surface (F6) rk Surface (F essions (F8) hric (F11) nese Masses (ace (F13) c (F17) rtic (F18) oodplain Soil	7) F12) s (F19)		1cm Muck 2cm Muck Reduced V Piedmont F Anomalous Red Parent	oblematic Hydric Se (A9) (A10) ertic (F18) Floodplain Soils (F1 Bright Loamy Soil Material (TF2)	9) s (F20)
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) 5cm Mucky Mineral (A Muck Presence (A8) 1 cm Muck (A9)	Coast Pr Sandy M Sandy G Sandy R Stripped Dark Su Dark Su Thin Da Loamy I Loamy I Surface (A) Loamy O	Mucky Mineral Bleyed Matrix (Bedox (S5) I Matrix (S6) Irface (S7) Le Below Surface Lirk Surface (S9) Mucky Minera	M16) (S1) (S4) ace (S8))		Redox Dark Depleted Dar Redox Depre Marl (F10) Depleted Oci Iron-Mangan Umbric Surfa Delta Ochric Reduced Ver	Surface (F6) rk Surface (F essions (F8) hric (F11) nese Masses (ace (F13) c (F17) rtic (F18) oodplain Soil	7) F12) s (F19)		1cm Muck 2cm Muck Reduced V Piedmont F Anomalous Red Parent Very Shalle	oblematic Hydric Se (A9) (A10) ertic (F18) Floodplain Soils (F1 Bright Loamy Soil Material (TF2)	9) s (F20)
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) 5cm Mucky Mineral (A Muck Presence (A8) 1 cm Muck (A9) Depleted Below Dark S Thick Dark Surface (A1)	Coast Pr Sandy M Sandy G Sandy G Sandy G Stripped Dark Su Orly Polyvalt Thin Da Loamy M Surface (A Loamy G L2) X Depleted	Mucky Mineral Gleyed Matrix (Redox (S5) I Matrix (S6) Irface (S7) Lee Below Surfark Surface (S9) Mucky Minera Gleyed Matrix	M16) (S1) (S4) ace (S8))		Redox Dark Depleted Dan Redox Depre Marl (F10) Depleted Ocl Iron-Mangan Umbric Surfi Delta Ochric Reduced Ver Piedmont Flc Anomalous I	Surface (F6) rk Surface (F8) hric (F11) nese Masses (ace (F13) c (F17) rtic (F18) oodplain Soil Bright Loamy	s (F19) Soils (F20)		1cm Muck 2cm Muck Reduced V Piedmont F Anomalous Red Parent Very Shalle	oblematic Hydric Se (A9) (A10) ertic (F18) Floodplain Soils (F1 Bright Loamy Soil Material (TF2)	9) s (F20)
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) 5cm Mucky Mineral (A Muck Presence (A8) 1 cm Muck (A9) Depleted Below Dark S	Coast Pr Sandy M Sandy G Sandy G Sandy G Stripped Dark Su Orling Thin Da Loamy M Loamy M Loamy M Loamy M Loamy M Surface (A) Loamy M Surface (A) Loamy M Surface (A) Loamy M Surface (A) Surface (A) Surface (A) Surface (A)	Mucky Mineral Gleyed Matrix (Redox (S5) I Matrix (S6) Irface (S7) Lee Below Surfark Surface (S9) Mucky Minera Gleyed Matrix	M16) (S1) (S4) ace (S8))	Remarks:	Redox Dark Depleted Dar Redox Depre Marl (F10) Depleted Ocl Iron-Mangan Umbric Surfa Delta Ochric Reduced Ver Piedmont Flo	Surface (F6) rk Surface (F8) hric (F11) nese Masses (ace (F13) c (F17) rtic (F18) oodplain Soil Bright Loamy	s (F19) Soils (F20)		1cm Muck 2cm Muck Reduced V Piedmont F Anomalous Red Parent Very Shalle	oblematic Hydric Se (A9) (A10) ertic (F18) Floodplain Soils (F1 Bright Loamy Soil Material (TF2)	9) s (F20)



Type: Depth (inches):

Stantec A			Γ OF MILITARY AFFAI		Section/Township/Range: N/A				
	/County:		A BEACH	KS	Subregion (LF			T	
,	State:	VIRC	GINIA			Site Latitude		36.816431°	
Invest	igator(s):	K. PRES	GRAVES		_ s	ite Longitude	:	-75.97849°	
	Date:	10/17	/2017		Soil Ma	ap Unit Name	: ACF	REDALE SILT LOA	.M
G 4771 11									
Summary of Findings:	V	UPLAN				OUTH OF JEFFERSON AVENUE.			
	very Vegetation is Present: ydric Soils are Present: X		Normal Cir Disturbed Parameters (se			NWI Classification: N/A Local Relief: CONCAVE			
· ·	Hydrology is Present:		Problematic Parameters (se				Landform: FLAT		
	a is within a Wetland:		oical Climate/Hydrology (se				pe %:	0-1	
Hydrology Parameter:			, , , , , , , , , , , , , , , , , , ,		·			-	
, Si	Primary I	dicators:					Secondary India	cators:	
						Surface S	oil Cracks (B6)		
Surface Water (A1)		Stained Leaves (B9	9)		_		Vegetated Conca	ve Surface (B8)	
High Water Table (A2)		c Fauna (B13)			_		Patterns (B10)		
Saturation (A3) Water Marks (B1)		Deposits (B15) gen Sulfide Odor (G	C1)		_		m Lines (B16) on Water Table (C2)	
Sediment Deposits (B2)		-	n Living Roots (C3)		-		Burrows (C8)	C2)	
Drift Deposits (B3)		ce of Reduced Iron			_		i Visible on Aeri	al Imagery (C9)	
Algal Mat or Crust (B4)		Iron Reduction in			_		r Stressed Plants		
Iron Deposits (B5)	Thin N	luck Surface (C7)			Geomorphic Position (D2)				
Inundation Visible on A	erial Imagery (B7) Other				1	Shallow A	Aquitard (D3)		
					_		tral Test (D5)		
			•			1 0	n Moss (D8)		
Water Depths (inches):			Remarks: HYDROLO	OGY PARA	METER NOT M	ET.			
Surface Water: Water Table:			111	NDEDGDO	NIND STORM DRAIN WITH DROP IN ETS DRESENT				
Saturated soil:				UNDERGROUND STORM DRAIN WITH DROP INLETS PRESENT.					
Vegetation Parameter:	> 20		<u> </u>						
Dominant Paspalum		atum IND aceous FAC	60		ominant Species		Stratum Herbaceous	IND % FACU 5	
Cynodon C		aceous FACU	60		noaia teres richum racemosum		Herbaceous	FACU 3	
	,			~,	Terbacous 1776 W 3				
	L	<u> </u>					1		1
% Dominant	species FAC or wetter: 5	0%			Pre	valence Index	:: 3.5	_	
	OR STATUS ACCORDING TO 2016	NATIONAL WETLAND				ing all species p	resent.	_	
Rapid Test for Hydrophyti			Remarks: VEGETAT	ION PARA	AMETER NOT M	ET.			
	re Test >50%:								
	ndex is ≤ 3.0:								
Problematic Hydrophyti	c Vegetation:								
Soil Parameter:									
	Matrix			Redox Fe	atures				
Depth (inches)	Color (Moist)	%	Color (Moist)	%	Type	Loc		Texture	
0-2	7.5YR 5/2	100			1			LOAM	
2-12	10YR 5/2	98	10YR 4/6	2	С	M		CLAY LOAM	
12-20	10YR 5/2	90	10YR 2/1	10	INCLUSIONS	M		CLAY LOAM	
					+		-		
Hydric Soil Indicators:		<u> </u>	1		1		1		
Histosol (A1)	Coast Prairie R	edox (A16)	Redox Dark	Surface (F	6)		Indicators for Pr	oblematic Hydric S	oils
Histic Epipedon (A2)	Sandy Mucky N		Depleted Da				marcarors you I i	obtemune 11 yunte bi	7110
Black Histic (A3)	Sandy Gleyed N		Redox Depr				1cm Muck	(A9)	
Hydrogen Sulfide (A4)	Sandy Redox (S		Marl (F10)				2cm Muck	(A10)	
Stratified Layers (A5)	Stripped Matrix	(S6)	Depleted Oc	chric (F11)			Reduced V	Vertic (F18)	
Organic Bodies (A6)	Dark Surface (S		Iron-Manga	nese Masse	s (F12)		Piedmont	Floodplain Soils (Fl	9)
5cm Mucky Mineral (A7	· · · · · · · · · · · · · · · · · · ·		Umbric Sur					s Bright Loamy Soi	ls (F20)
Muck Presence (A8)	Thin Dark Surf		Delta Ochri					t Material (TF2)	
1 cm Muck (A9)	Loamy Mucky		Reduced Vertic (F18)					low Dark Surface (T	F12)
Depleted Below Dark St			Piedmont Floodplain Soils (F19)				Other		
Thick Dark Surface (A1)	2) X Depleted Matri	(F3)	Anomalous Bright Loamy Soils (F20)						
Ī									

ASPHALT PRESENT (20%) WITHIN THE 12-20" PROFILE.

S S	tantec
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Stantec A		INIA DEPA					Section/To	ownship/Range:		N/A			
	//County:		/IRGINIA					RR or MLRA):		T		_	
	State:		VIRGI				_	Site Latitude:		36.81643	1°		
Invest	igator(s):		S. KUI					Site Longitude:		-75.97849)°		
	Date:		10/16/2	2017			Soil N	Map Unit Name:	ACR	EDALE SIL	T LOAM		
Summary of Findings:				UP	LAND SOU	TH OF DA	TA POINT '33	'.					
Hydrophytic	Vegetation is Present:				Normal Circ	cumstances:	X	NWI Classifica	tion:	N/A			
Н	ydric Soils are Present:			Disturbed Pa	rameters (see	e Remarks):		Local Re	elief:	NONE			
Wetland	d Hydrology is Present:		P	roblematic Pa	rameters (see	e Remarks):		Landf	orm:	FLAT			
Sampled Are	a is within a Wetland:		Atypic	cal Climate/Hy	ydrology (see	e Remarks):		Slop	e %:	0-1			
Hydrology Parameter:							T						
	Prima	ry Indicators:	:						Secondary Indic	ators:			
Surface Water (A1)	V	Vater Stained I	anuas (PO)						oil Cracks (B6) egetated Concav	io Curfoco (I	30)		
High Water Table (A2)		quatic Fauna ('					Patterns (B10)	e Surrace (E	10)		
Saturation (A3)		Iarl Deposits (Lines (B16)				
Water Marks (B1)		lydrogen Sulfic		1)					n Water Table (72)			
Sediment Deposits (B2)		xidized Rhizo			(C3)				Surrows (C8)				
Drift Deposits (B3)		resence of Rec	•							ıl Imagery (C	. '9)		
Algal Mat or Crust (B4)	R	ecent Iron Rec	duction in T	Tilled Soils (C	(6)			Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)					
Iron Deposits (B5)	T	hin Muck Surf	face (C7)					Geomorph	ic Position (D2)				
Inundation Visible on A	erial Imagery (B7)O	ther							quitard (D3)				
									ral Test (D5)				
W . B . I (1 I)				ln , ,	THE POLO	CV D L D L D	TERED NOT	1 0	Moss (D8)			_	
Water Depths (inches):				Remarks: 1	HYDROLOG	GY PARAN	METER NOT !	MET.					
Surface Water: Water Table:					EVI	ISTING STO	DMWATED I	DAIN WITH F	ROP INLETS P	DECENT			
Saturated soil:					LAI	100 0110	JKWWATEK L						
Vegetation Parameter:	>20			l								_	
r egeution i tirumeteri												\neg	
Dominan		Stratum	IND	%			minant Species		Stratum	IND	%		
Cynodon		Herbaceous	FACU	30		Symphyotric	chum lateriflori	ım	Herbaceous	FAC	5		
Paspalum	anatatum	Herbaceous	FAC	25									
										ı			
	. FLG	500/							2.5				
	species FAC or wetter: FOR STATUS ACCORDING TO	50%	NUMBER AND D	N. A NITE Y YOUR				evalence Index:		i			
Rapid Test for Hydrophyt		2016 NATIONAL	WEILAND		VECETATI	ON DADAR	METER NOT	using all species pr	esent.			_	
	ce Test >50%:			Kemarks.	VEGETATI	ON FARAI	WIETER NOT	WIE1.					
	Index is ≤ 3.0 :												
Problematic Hydrophyt													
Soil Parameter:					,					,			
		trix				Redox Feat	tures						
Depth (inches)	Color (Moist)		%	Color (%	Type	Loc		Texture			
0-5	10YR 4/3		95	7.5YI	3 4/6	5	C	M		NE SANDY			
5-16	10YR 5/2		100							NE SANDY			
16-20	2.5Y 6/3		99	10YF	t 5/1	1	D	M	FII	NE SANDY	LOAM		
II I C II P													
Hydric Soil Indicators:	C + P :	. D. L. (A1)	0		D 1 D 1	C ((FC)			L C D	11 .: **	1 . 6 .1	_	
Histosol (A1)		rie Redox (A1			Redox Dark S			1	ndicators for Pr	эвіетанс ну	raric Sous		
Histic Epipedon (A2) Black Histic (A3)		cky Mineral (S yed Matrix (S4			Depleted Dar Redox Depre		F1)		1cm Muck	(A0)			
Hydrogen Sulfide (A4)			*)		Marl (F10)	3310113 (1 0)			2cm Muck				
Hydrogen Sulfide (A4) Sandy Redox (S5) Stratified Layers (A5) Stripped Matrix (S6)					Depleted Och	hric (F11)							
Organic Bodies (A6)	<u> </u>				Iron-Mangane		(F12)	Reduced Vertic (F18) Piedmont Floodplain Soils (F19)					
5cm Mucky Mineral (A7) Polyvalue Below Surface (S8)					Umbric Surfa			Anomalous Bright Loamy Soils (F20)					
Muck Presence (A8)		Surface (S9)		Delta Ochric (F17)					Red Parent Material (TF2)				
1 cm Muck (A9)		cky Mineral (F1)	Reduced Vertic (F18) Very Shallow Dark Surface (TF1									
Depleted Below Dark S		eyed Matrix (F		Piedmont Floodplain Soils (F19) Other									
Thick Dark Surface (A1				Anomalous Bright Loamy Soils (F20)									
Restrictive Layer (If Ob.			_	Remarks: \$	SOIL PARA	METER N	OT MET.						
Depth (inches):	Type:												



Stantec ,		MR CAMP PE										
	Applicant: VIF	GINIA DEPA	ARTMENT VIRGINIA		ARY AFFAL	RS		Cownship/Range LRR or MLRA)		N/A T		
City	State:		VIRGINIA				Sublegion (Site Latitude		36.816431	1°	
Invest	tigator(s):		B. ASF				•	Site Longitude		-75.97849)°	
	Date:		10/13/	2017			Soil	Map Unit Name	T	ETOTUM L	.OAM	
Summary of Findings:				,	WETLAND (COUTH OF	FLAG 'BAD-5	z·				
	c Vegetation is Present:	X				cumstances:		NWI Classifica	tion:	N/A		
	lydric Soils are Present:	X		Disturbed I	Parameters (se			Local R		CONCAV	/E	
Wetlan	d Hydrology is Present:	X	F		Parameters (se			Land	form:	FLAT		
Sampled Are	a is within a Wetland:	X			Hydrology (se			Slop	e %:	1-2		
Hydrology Parameter:												
	Pri	mary Indicator	s:						Secondary Indic	ators:		
Surface Water (A1)		Water Stained	Leaves (B0	`					oil Cracks (B6) egetated Concar	ve Surface (B	38)	
High Water Table (A2)		Aquatic Fauna		,					Patterns (B10)	re Burrace (B	10)	
Saturation (A3)		Marl Deposits							Lines (B16)			
Water Marks (B1)		Hydrogen Sul	fide Odor (C	1)				Dry-Seaso	n Water Table (C2)		
Sediment Deposits (B2)	X	Oxidized Rhiz	•	_	ts (C3)		X Crayfish Burrows (C8)					
Drift Deposits (B3)		Presence of Re			(CO)				Visible on Aeria		.'9)	
Algal Mat or Crust (B4) Iron Deposits (B5)		Recent Iron R Thin Muck Su		Tilled Solls	(C0)				Stressed Plants ic Position (D2)			
Inundation Visible on A	erial Imagery (B7)	Other	rrace (C7)						quitard (D3)			
		-						X FAC-Neur				
								1 0	Moss (D8)			
Water Depths (inches):				Remarks:	HYDROLO	OGY PARAN	METER MET	•				
Surface Water: Water Table:												
Saturated soil:												
Vegetation Parameter:	. >20											
											<u></u>	
Dominan Dichanthelius		Stratum Herbaceous	IND FACW	20			minant Species trichum pilosun		Stratum Herbaceous	IND FAC	5	
Hydrocotyle		Herbaceous	OBL	20		Sympnyoi	пспит риоѕип	n	Herbaceous	FAC	3	
Persicaria hyd		Herbaceous	OBL	15								
Paspalum	dilatatum	Herbaceous	FAC	15								
									1			
% Dominant	species FAC or wetter:	100%					р	revalence Index	1.8			
	FOR STATUS ACCORDING		L WETLAND	PLANT LIST				using all species pr		•		
Rapid Test for Hydrophyt				Remarks:	VEGETAT	ION PARA	METER MET					
	ce Test >50%: X	-										
Prevalence 1	Index is ≤ 3.0 : X	<u>-</u>										
Problematic Hydrophyt	ic Vegetation:	=" -										
G "P												
Soil Parameter:		Iatrix				Redox Feat	tumaa					
Depth (inches)	Color (Mois		%	Color	r (Moist)	%	Type	Loc		Texture		
0-3	10YR 4/1	.,	95	•	YR 5/8	5	C	M	FI	NE SANDY		
3-20	10YR 5/2		85		YR 5/8	15	C	M		NE SANDY		
					-							
YY 1	l			<u> </u>								
Hydric Soil Indicators:	G . P	· · · · · · · · · · · · · · · · · · ·	10		D 1 D 1	0 0 000		<u> </u>		11 **	1 . 6 .1	
Histosol (A1) Histic Epipedon (A2)		airie Redox (A Iucky Mineral (Surface (F6) ark Surface (I		4	ndicators for Pr	oblematic Hy	dric Soils	
Black Histic (A3)		leyed Matrix (S			Redox Depre		=1)		1cm Muck	(A9)		
Hydrogen Sulfide (A4)		edox (S5)) · · · ·	_	Marl (F10)	essions (1 o)			2cm Muck			
Stratified Layers (A5)		Matrix (S6)			Depleted Oc	chric (F11)				ertic (F18)		
Organic Bodies (A6)	Dark Su	rface (S7)			Iron-Mangar	nese Masses	(F12)		Piedmont I	Floodplain Sc	oils (F19)	
5cm Mucky Mineral (A	7) Polyvalu	e Below Surfa	ce (S8)	_	Umbric Surf	face (F13)				-	my Soils (F20)	
Muck Presence (A8)		rk Surface (S9)			Delta Ochric		· —					
1 cm Muck (A9)		Mucky Mineral		Reduced Vertic (F18) Very Shallow Dark Surface (*						tace (TF12)		
Depleted Below Dark S Thick Dark Surface (A1		Gleyed Matrix (I Matrix (F3)	F2)	Piedmont Floodplain Soils (F19) Anomalous Bright Loamy Soils (F20) Other								
IMCK Dark Surface (A1	A Depleted	1 1VIAUIX (F3)		Anomalous Dright Loamy Soms (F20)								
Restrictive Layer (If Ob	served)			Remarks:	SOIL PAR	AMETER M	IET.					
Type:							•					
Depth (inches):												



Stantec A					ND DELINEA ARY AFFAIR		Section/	Township/Range:		N/A								
	//County:	OINIA DEF	VIRGINIA		AKI AITAIN	7.3		(LRR or MLRA):		T								
	State:		VIRG					Site Latitude:		36.81643	31°							
Invest	igator(s):		B. ASI					Site Longitude:		-75.9784								
	Date:		10/13/	2017			Soil	Map Unit Name:		TETOTUM I	LOAM							
Summary of Findings:				UP	LAND SOUT	HEAST OF	FLAG 'BAI	D-29'.										
Hydrophytic	Vegetation is Present:	X			Normal Circ	cumstances:	X	NWI Classificat	ion:	N/A								
	ydric Soils are Present:				Parameters (see			Local Re		NONE								
	d Hydrology is Present:				Parameters (see			Landfo		FLAT	· 							
Hydrology Parameter:	a is within a Wetland:		Atypi	cai Climate/	Hydrology (see	e Kemarks):		Slope	3 %:	0-1								
nyurology rarameter.	Prii	nary Indicato	ors:					S	Secondary Indic	cators:								
									il Cracks (B6)		-							
Surface Water (A1)			d Leaves (B9))				·	egetated Conca	ve Surface (B8)							
High Water Table (A2)		Aquatic Faur					Drainage Patterns (B10)Moss Trim Lines (B16)											
Saturation (A3) Water Marks (B1)		Marl Deposit	s (B15) lfide Odor (C	1)					Lines (B16) n Water Table (C2)								
Sediment Deposits (B2)			izospheres on		ts (C3)				urrows (C8)	/								
Drift Deposits (B3)		-	Reduced Iron						Visible on Aeri		C9)							
Algal Mat or Crust (B4)			Reduction in T	Filled Soils	(C6)				Stressed Plants ic Position (D2)									
Iron Deposits (B5) Inundation Visible on A	erial Imagery (B7)	Thin Muck S Other	urrace (C7)						c Position (D2) quitard (D3)	,								
		- Cuite							ral Test (D5)									
								Sphagnum	Moss (D8)									
Water Depths (inches):				Remarks:	HYDROLO	GY PARAN	METER NOT	MET.										
Surface Water: Water Table:																		
Saturated soil:																		
Vegetation Parameter:																		
Dominan	t Chaoing	Stratum	IND	%		Non Do	minant Specie	29	Stratum	IND	9/							
Pinus		Tree	FAC	35			lla cerifera	es	Shrub	FAC	5							
Pinus		Sapling	FAC	10					Í									
Liquidambar Acer ri		Sapling Shrub	FAC FAC	5 20					Í									
Quercus		Shrub	FACU	15					Í									
Lespedeza Andropogon		Herbaceous Herbaceous		10 10					Í									
Smilax rot	undifolia	Vine	FAC	15					Í									
Smilax	glauca	Vine	FAC	10					Í									
									Í									
									İ									
									Í									
									İ									
									İ									
									İ									
									Í									
										.11								
	species FAC or wetter:	78%	_					Prevalence Index:	3.2	_								
	FOR STATUS ACCORDING T	TO 2016 NATION	AL WETLAND		VIE CETT A TOX	ONBIBLE		d using all species pre	sent.									
Rapid Test for Hydrophyt	ce Test >50%: X			Remarks:	VEGETATI	ON PARA	METER MET	I.										
	Index is ≤ 3.0 :	-																
Problematic Hydrophyt																		
		•																
Soil Parameter:		Iatrix		T .		D. I. F.		1										
Depth (inches)	Color (Mois		%	Color	r (Moist)	Redox Feat	Type	Loc		Textur	·e							
0-11	10YR 4/1		100		(=====)	,,,	-71-		FI	NE SANDY								
11-20	2.5Y 4/1		99	2.5	5Y 6/6	1	С	M	FI	NE SANDY	LOAM							
									 									
Hydric Soil Indicators:	<u> </u>			<u> </u>		1 1		1										
Histosol (A1)	Coast Pra	airie Redox (A	A16)		Redox Dark S	Surface (F6))	In	ndicators for Pr	roblematic E	Ivdric Soil	s						
Histic Epipedon (A2)		lucky Mineral			Depleted Dar				y -		J							
Black Histic (A3)		leyed Matrix	(S4)		Redox Depre	essions (F8)			1cm Muck									
Hydrogen Sulfide (A4)		edox (S5)		_	_Marl (F10)				2cm Muck									
Stratified Layers (A5) Organic Bodies (A6)		Matrix (S6) face (S7)		_	Depleted Och Iron-Mangan		Œ12)			Vertic (F18) Floodplain S	Soile (E10)							
5cm Mucky Mineral (A'		e Below Surf	ace (\$8)		Umbric Surfa		(F12)			rioodpiain s is Bright Loa								
Muck Presence (A8)		rk Surface (S9		_	Delta Ochric			1		is Bright Loa it Material (T		(* 20)						
1 cm Muck (A9)		Aucky Minera		_	Reduced Ver			1		low Dark Su		12)						
Depleted Below Dark St		Bleyed Matrix	(F2)	_	Piedmont Flo	-			Other									
Thick Dark Surface (A1	2) Depleted	Matrix (F3)			_Anomalous B	Bright Loamy	y Soils (F20)											
Restrictive Layer (If Ob.	served)			Remarks:	SOIL PARA	METED N	ОТ МЕТ											
				ixemidiks.	JUIL FAKA	WIETER N	OI MEI.											
	Type:																	



Stantec	,	MR CAMP PE					g .:	т. 1: /D		NT/A	
	Applicant: VIF ty/County:	RGINIA DEPA	VIRGINIA		AKT AFFAL	KS		Township/Range: (LRR or MLRA):		N/A T	
0.	State:		VIRG				buoregion	Site Latitude:		36.81643	31°
Inve	stigator(s):		S. KU					Site Longitude:		-75.9784	9°
	Date:		10/16/	2017			Soi	l Map Unit Name:	СНА	PANOKE S	ILT LOAM
Summary of Findings:					UPLAN	D AT FLAC	; 'KPP-5'.				
	tic Vegetation is Present:	X				cumstances:		NWI Classificati	on:	PFO1/4	В
	Hydric Soils are Present:				arameters (se			Local Rel	ief:	CONVE	
	nd Hydrology is Present:				arameters (se			Landfo		SLOPE	3
Sampled Ar Hydrology Parameter:	ea is within a Wetland:		Atypi	cal Climate/F	Hydrology (se	e Remarks):		Slope	%:	1-3	
nyurology rarameter:	Pri	mary Indicators	:					S	econdary Indi	cators:	
		mary marcanors	•						Cracks (B6)		
Surface Water (A1)		Water Stained)					egetated Conca	ve Surface (B8)
High Water Table (A2		Aquatic Fauna							atterns (B10)		
Saturation (A3) Water Marks (B1)		Marl Deposits Hydrogen Sulfi		(1)				Moss Trim Dry-Season	Water Table ((C2)	
Sediment Deposits (B2	2)	Oxidized Rhize			s (C3)			Crayfish Bu		()	
Drift Deposits (B3)		Presence of Re							Visible on Aeri		C9)
Algal Mat or Crust (B4 Iron Deposits (B5)		Recent Iron Re Thin Muck Sur		Filled Soils (C6)				Stressed Plants Position (D2)		
Inundation Visible on	Aerial Imagery (B7)	Other	race (C7)					Shallow Aq)	
_	<u> </u>	•						FAC-Neutra	al Test (D5)		
w				ln :	******	OT :	(F)(F)(F)	Sphagnum 1	Moss (D8)		
Water Depths (inches): Surface Wate	r.			Remarks:	HYDROLO	JGY PARAN	METER NOT	I MET.			
Water Table											
Saturated soi											
Vegetation Parameter:											
Domina	nt Species	Stratum	IND	%		Non-Do	ninant Speci	es	Stratum	IND	%
Querc	us rubra	Tree	FACU	60		Nyss	a sylvatica		Tree	FAC	15
	rubrum sylvatica	Tree Sapling	FAC FAC	30 10		Carpini	is caroliniano	ı	Tree	FAC	15
Liquidamb	ar styraciflua	Sapling	FAC	5							
	s taeda um sinense	Sapling Shrub	FAC FAC	5 15							
	otundifolia	Herbaceous	FAC	15							
Chasmanthi	ium latifolium	Herbaceous	FAC	5							
	at species FAC or wetter:		-	DI ANTTI ICT				Prevalence Index:	3.3	_	
Rapid Test for Hydrophy		TO 2016 NATIONAL	LWEILAND	Remarks:	VEGETAT	ION PARAI	METER ME	0 1 1	sent.		
	nce Test >50%: X	-		remarks.	VEGETATI	ion inimi	VILILA ME	••			
Prevalence	Index is ≤ 3.0:	-									
Problematic Hydrophy	vtic Vegetation:	_									
Soil Parameter:											
Jon 1 drameter.	N	Matrix				Redox Feat	tures				
Depth (inches)	Color (Mois	t)	%	Color	(Moist)	%	Type	Loc		Textur	e
0-4	10YR 4/3		100							SANDY LO	
4-20	10YR 4/4		85		/R 5/6 /R 4/6	10 5	C C	M PL	SA	ANDY CLAY	LOAM
				7.51	IN 4/U	3	<u> </u>	FL			
				t				1			
Hydric Soil Indicators:	•							•			
Histosol (A1)		airie Redox (A1			Redox Dark			In	dicators for P	roblematic H	lydric Soils
Histic Epipedon (A2)		Iucky Mineral (S			Depleted Da		7)		1 M1	I- (AO)	
Black Histic (A3) Hydrogen Sulfide (A4)		leyed Matrix (S edox (S5)	4)	_	Redox Depre Marl (F10)	essions (F8)		-	1cm Mucl 2cm Mucl		
Stratified Layers (A5)		Matrix (S6)			Depleted Oc	chric (F11)		-	_	Vertic (F18)	
Organic Bodies (A6)	Dark Su	rface (S7)			Iron-Mangar	nese Masses	(F12)		Piedmont	Floodplain S	Soils (F19)
5cm Mucky Mineral (A		e Below Surfac	e (S8)		Umbric Surf			_	_	_	amy Soils (F20)
Muck Presence (A8) 1 cm Muck (A9)		rk Surface (S9) Mucky Mineral (Œ1)	_	Delta Ochric Reduced Ve			-		nt Material (T	ΓF2) rrface (TF12)
Depleted Below Dark		viucky Minerai (Gleyed Matrix (I			Piedmont Fl		ls (F19)	-	Other	now Dark Su	11000 (1112)
Thick Dark Surface (A		l Matrix (F3)	-,		_		y Soils (F20)	-			
		•			_						
Restrictive Layer (If O				Remarks:	SOIL PARA	AMETER N	от мет.				
Type Depth (inches											
Depth (menes	/-										



Stantec		MR CAMP PENDI				•						
		GINIA DEPARTI		TARY AFFAI	RS		ownship/Range:	N/A				
Ci	ty/County: State:		GINIA BEACH VIRGINIA			Subregion (I	LRR or MLRA): _ Site Latitude:	T 36.816431°				
Inve	stigator(s):		S. KUPIEC			•	Site Longitude:					
	Date:		10/16/2017			Soil I	Map Unit Name:	TOMOTELEY LOAM				
G 4771 11				********								
Summary of Findings:	ic Vegetation is Present:	X			ND AT FLA cumstances:		NWI Classificati	on: PFO4A				
	Hydric Soils are Present:	X	Disturbed	Parameters (se			Local Rel		_			
	nd Hydrology is Present:	X		Parameters (se			Landfor	rm: DRAINAGEWAY				
	ea is within a Wetland:	X	Atypical Climate	e/Hydrology (se	e Remarks):		Slope	%: 1-2				
Hydrology Parameter:												
	Prii	nary Indicators:						Crocks (B6)				
Surface Water (A1)	X	Water Stained Leav	res (B9)			Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8)						
High Water Table (A2		Aquatic Fauna (B1					Drainage Pa	-				
Saturation (A3)		Marl Deposits (B15					Moss Trim l					
Water Marks (B1) Sediment Deposits (B2)		Hydrogen Sulfide Oxidized Rhizosph		-t- (C2)			Dry-Season Crayfish Bu	Water Table (C2)				
Drift Deposits (B3)		Presence of Reduce		ots (C3)				isible on Aerial Imagery (C9)				
Algal Mat or Crust (B4	4)	Recent Iron Reduct		(C6)				tressed Plants (D1)				
Iron Deposits (B5)		Thin Muck Surface	(C7)				X Geomorphic					
Inundation Visible on .	Aerial Imagery (B7)	Other					Shallow Aqu					
							X FAC-Neutra Sphagnum M					
Water Depths (inches):			Remarks:	HYDROLO	OGY PARA	METER MET.	1 0	()				
Surface Wate												
Water Table												
Saturated soi Vegetation Parameter:	1: >20											
vegetation rarameter.												
	nt Species		IND %		Non-Do	minant Species	3	Stratum IND %				
	ır styraciflua rubrum		FAC 75 FAC 25									
	rubrum	Sapling	FAC 25									
	sylvatica 1 formosum		FAC 10 FAC 10									
Woodward	lia areolata	Herbaceous	OBL 50									
	ım vimineum otundifolia		FAC 15 FAC 10									
Smita	линијони	VIIIC	ine in									
% Dominan	t species FAC or wetter:	100%				P	revalence Index:	2.5				
	ATOR STATUS ACCORDING		TLAND PLANT LIST				using all species pres					
Rapid Test for Hydrophy			Remarks:	VEGETAT	ION PARA	METER MET.	•					
	nce Test >50%: X	<u> </u>										
	Index is ≤ 3.0: X											
Problematic Hydrophy	tic vegetation.											
Soil Parameter:												
		Iatrix			Redox Fea							
Depth (inches) 0-4	Color (Mois 10YR 3/2	t) 9/		or (Moist)	%	Type	Loc	Texture SANDY LOAM				
4-20	10 FR 3/2	8.		5YR 4/6	15	С	M	SANDY CLAY LOAM				
. 20	10111-4/2	0.	· /·	"0	1.5			CLIII DOINI				
**												
Hydric Soil Indicators:	G . D	:: D 1 (A10)		D.I. D.I	0 6 000			r . c p H . H I c H				
Histosol (A1) Histic Epipedon (A2)		airie Redox (A16) lucky Mineral (S1)	_		Surface (F6) ark Surface (I		Inc	dicators for Problematic Hydric Soils				
Black Histic (A3)		leyed Matrix (S4)	_	Redox Depr		,		1cm Muck (A9)				
Hydrogen Sulfide (A4)		edox (S5)	-	Marl (F10)			-	2cm Muck (A10)				
Stratified Layers (A5)		Matrix (S6)	-	Depleted Oc				Reduced Vertic (F18)				
Organic Bodies (A6)		face (S7)	<u> </u>	Iron-Mangar		(F12)	_	Piedmont Floodplain Soils (F19)				
5cm Mucky Mineral (A Muck Presence (A8)		e Below Surface (Sark Surface (S9)		Umbric Surf			-	Anomalous Bright Loamy Soils (F Red Parent Material (TF2)	F20)			
1 cm Muck (A9)		rk Surrace (S9) Mucky Mineral (F1)	_	Delta Ochric (F17) Reduced Vertic (F18)				Very Shallow Dark Surface (TF12)				
Depleted Below Dark		Gleyed Matrix (F2)	-			ls (F19)	-	Other	′			
Thick Dark Surface (A		•	_	Piedmont Floodplain Soils (F19) Anomalous Bright Loamy Soils (F20) Other								
												
			Remarks:	SOIL PAR	AMETER M	IET.						
• Type	Restrictive Layer (If Observed) Type:											
Depth (inches												



Stantec A		MR CAMP PE									
	Applicant: VIR y/County:	GINIA DEPA	VIRGINIA		ARY AFFAI	RS		ownship/Range LRR or MLRA)		N/A T	
City	State:		VIRG				buolegion (Site Latitude		36.816431°	
Invest	tigator(s):		S. KU					Site Longitude		-75.97849°	
	Date:		10/16/	2017			Soil	Map Unit Name	T	OMOTLEY LO	DAM
Summary of Findings:					LIDI AND	ABOVE EL	AG 'SKA-54'.				
	c Vegetation is Present:	X				cumstances:		NWI Classifica	ition:	PFO1/4B	
	ydric Soils are Present:	X		Disturbed I	Parameters (se	ee Remarks):		Local R		CONCAVE	
Wetland	d Hydrology is Present:	X	F	roblematic l	Parameters (se	ee Remarks):		Land	form:	DRAINAGEW.	AY
	a is within a Wetland:	X	Atypi	cal Climate/	Hydrology (se	ee Remarks):		Slop	e %:	1-2	
Hydrology Parameter:											
	Prii	mary Indicators	:						Secondary Indic oil Cracks (B6)	ators:	
Surface Water (A1)		Water Stained I	eaves (B9)					egetated Concar	ve Surface (B8)
High Water Table (A2)		Aquatic Fauna		,					Patterns (B10)	(-,	,
Saturation (A3)	_	Marl Deposits ((B15)					Moss Trin	n Lines (B16)		
Water Marks (B1)		Hydrogen Sulfi							n Water Table (C2)	
Sediment Deposits (B2) Drift Deposits (B3)		Oxidized Rhizo Presence of Rec	•	-	ts (C3)				Burrows (C8) Visible on Aeria	ol Imagery (C0)	0
Algal Mat or Crust (B4)		Recent Iron Rec			(C6)				Stressed Plants		,
Iron Deposits (B5)	<u> </u>	Thin Muck Sur			` /				ic Position (D2)		
Inundation Visible on A	erial Imagery (B7)	Other							quitard (D3)		
								X FAC-Neur			
Water Depths (inches):				Remarks:	HVDPOLO	OCV DADAN	METER MET.	1 0	Moss (D8)		
Surface Water:				remarks.	HIDROL	JIIANAN	TELENTER	•			
Water Table:											
Saturated soil:	>20										
Vegetation Parameter:											
Dominan	t Species	Stratum	IND	%		Non-Doi	minant Species	8	Stratum	IND	%
Acer ri		Tree	FAC	65			rotundifolia		Herbaceous		10
Ligustrun Acer ri		Sapling Sapling	FAC FAC	15 10		Toxicode	ndron radicans	8	Herbaceous	FAC	5
Ligustrun	n sinense	Shrub	FAC	10							
Persea b Microstegiui		Shrub Herbaceous	FACW FAC	5 25							
Lonicera		Herbaceous	FACU	15							
Woodwardi	ia areolata	Herbaceous	OBL	10							
% Dominant	species FAC or wetter:	88%					P	revalence Index	2.9		
NOTE: SPECIES INDICA	TOR STATUS ACCORDING	TO 2016 NATIONAL	WETLAND	PLANT LIST			Calculated	using all species p	resent.		
Rapid Test for Hydrophyt		-		Remarks:	VEGETAT	TON PARA!	METER MET				
	ce Test >50%: X Index is < 3.0: X	-									
Problematic Hydrophyt		-									
1 Toolematic Tryarophyt	re regetation.	-									
Soil Parameter:				•							
B 14 1		1atrix				Redox Feat					
Depth (inches) 0-3	Color (Mois 10YR 3/3	t)	100	Color	r (Moist)	%	Type	Loc		Texture LOAM	
3-8	2.5Y 3/2		100							CLAY LOAN	<u></u>
8-20	10YR 4/2		85	10	YR 4/6	5	С	M		CLAY LOAN	
						<u> </u>					
			•	_	· · · · · · · · · · · · · · · · · · ·					· ·	
Hydric Soil Indicators:			0		D	0.6 =		ı		11	1 . 6 .7
Histosol (A1) Histic Epipedon (A2)		airie Redox (A1 Iucky Mineral (S		_		Surface (F6) ark Surface (F			Indicators for Pr	optematic Hydi	ric Soils
Black Histic (A3)		leyed Matrix (S				ressions (F8)	. 1)		1cm Muck	(A9)	
Hydrogen Sulfide (A4)		edox (S5)	*	_	Marl (F10)	()			2cm Muck		
Stratified Layers (A5)	Stripped	Matrix (S6)		_	Depleted O				Reduced V	Vertic (F18)	
Organic Bodies (A6)		rface (S7)			_	nese Masses	(F12)			Floodplain Soil	
5cm Mucky Mineral (A		e Below Surface	e (S8)		_Umbric Sur					s Bright Loamy	
Muck Presence (A8) 1 cm Muck (A9)		rk Surface (S9) Mucky Mineral (F1)	_	Delta Ochri Reduced Ve					t Material (TF2 low Dark Surfa	
Depleted Below Dark S		Gleyed Matrix (F		_	_	loodplain Soi	ls (F19)		Other	Dark Build	·· (1114)
Thick Dark Surface (A1	· — ·	Matrix (F3)	',	_	_	Bright Loam					
	<u> </u>										
Restrictive Layer (If Ob.			_	Remarks:	SOIL PAR	AMETER M	IET.			·	
Type: Depth (inches):											
Depui (menes).											

S S	tantec
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Stantec ,					ND DELINEA ARY AFFAI		Section/T	ownship/Range:		N/A		
	y/County:	OINIA DE	VIRGINIA		AKT AITAI	KS		LRR or MLRA):		T		
	State:		VIRG				buoregron (1	Site Latitude:	-	36.81643	31°	
Inves	tigator(s):		S. KU					Site Longitude:		-75.9784	9°	
	Date:		10/16/	2017			Soil N	Map Unit Name:	T	OMOTLEY	LOAM	
Summary of Findings:					WETLAN	ND AT FLAC	G 'SKA-50'.					
	c Vegetation is Present:	X				cumstances:		NWI Classifica	tion:	PFO1/4	·B	
H	Iydric Soils are Present:	X			Parameters (see			Local Re	elief:	CONCA	VE	
	d Hydrology is Present:				Parameters (see			Landf		DRAINAGE	EWAY	
	ea is within a Wetland:	X	Atypi	cal Climate/	Hydrology (see	e Remarks):		Slop	e %:	1-3		
Hydrology Parameter:	Dei	mary Indicat	tors			1			Secondary Indic	eators:		1
	111	тигу тинсин	1013.						oil Cracks (B6)	uors.		
Surface Water (A1) High Water Table (A2) Saturation (A3)		Water Stain Aquatic Fau Marl Depos)				Sparsely V Drainage F	Vegetated Concar Patterns (B10) In Lines (B16)	ve Surface (B8)	
Water Marks (B1)		-	ulfide Odor (C	(1)					n Water Table (C2)		
Sediment Deposits (B2)			hizospheres on		ts (C3)				Surrows (C8)			
Drift Deposits (B3)		_	Reduced Iron						Visible on Aeria		C9)	
Algal Mat or Crust (B4) Iron Deposits (B5)		-	Reduction in 7 Surface (C7)	l'illed Soils	(C6)				Stressed Plants ic Position (D2)			
Inundation Visible on A	Aerial Imagery (B7)	Other	Surface (C7)						quitard (D3)			
		-						X FAC-Neut				
								Sphagnum	Moss (D8)			
Water Depths (inches):	_			Remarks:	HYDROLO	OGY PARAN	METER MET.					
Surface Water Water Table												
Saturated soil												
Vegetation Parameter:												
Dominor	nt Species	Stratum	ı IND	0/		Non Do	minant Species		Stratum	IND	0/	
Liquidamba		Tree	FAC	% 40			a sylvatica		Tree	FAC	15	
Acer r	ubrum	Tree	FAC	30								
Acer r. Ligustrus		Sapling Shrub	FAC FAC	15 35								
Woodward		Herbaceou		40								
Microstegiu		Herbaceou	us FAC	15								
Smilax ro	tundifolia	Vine	FAC	10								
	species FAC or wetter:						Pı	revalence Index:	2.6	_		
	TOR STATUS ACCORDING	TO 2016 NATIO	NAL WETLAND	1				using all species pro	esent.			
Rapid Test for Hydrophy		_		Remarks:	VEGETAT	ION PARA	METER MET.					
	ce Test >50%: X Index is < 3.0: X	-										
Problematic Hydrophy		-										
1 Toblematic Trydrophy	ne vegetation.	-										
Soil Parameter:												
		Matrix				Redox Feat	tures					
Depth (inches)	Color (Mois	t)	%	Colo	r (Moist)	%	Type	Loc		Textur		
0-6 6-20	10YR 3/2 10YR 4/2		100 85	10	YR 5/8	15	С	M	 	LOAM CLAY LO		
0-20	101K 4/2		63	10	1 K 3/0	13	C	IVI		CLAT LO	ZXIVI	
		ľ		t								
Hydric Soil Indicators:												
Histosol (A1)		airie Redox				Surface (F6)		I	ndicators for Pr	oblematic H	lydric Soils	
Histic Epipedon (A2)		lucky Minera		_	Depleted Da		77)			(10)		
Black Histic (A3) Hydrogen Sulfide (A4)		leyed Matrix edox (S5)	(54)	_	Redox Depre Marl (F10)	essions (F8)			1cm Muck 2cm Muck			
Stratified Layers (A5)		Matrix (S6)		_	Depleted Oc	chric (F11)				Vertic (F18)		
Organic Bodies (A6)		rface (S7)				nese Masses	(F12)			Floodplain S	Soils (F19)	
5cm Mucky Mineral (A		e Below Sur	face (S8)		Umbric Surf					ıs Bright Loa		(20)
Muck Presence (A8)	Thin Da	rk Surface (S	59)	_	Delta Ochric	e (F17)			Red Paren	t Material (T	ΓF2)	
1 cm Muck (A9)		Mucky Miner		_	Reduced Ver					low Dark Su	rface (TF12	2)
Depleted Below Dark S		Gleyed Matri			Piedmont Flo				Other			
Thick Dark Surface (A)	X Depleted	l Matrix (F3))		Anomalous l	Bright Loam	y Soiis (F20)					
Restrictive Layer (If Ob	served)			Remarks:	SOIL PARA	AMETER M	ET.					
Type				Actini KS.	SOILIMA							
Depth (inches)												



Stantec A			EPARTMENT				Section	n/Township/Range		N/A	
	y/County:		VIRGINIA				_	n (LRR or MLRA)		T	
	State:		VIRG				-	Site Latitude		36.816431°	
Inves	tigator(s):		S. KU				=.	Site Longitude		-75.97849°	
	Date:		10/16/	/2017			_ So	il Map Unit Name	:T	OMOTLEY LO	OAM
Summary of Findings:					IIPI.AN	D AT FLAC	2 'KPS.19'				
	c Vegetation is Present:	X				rcumstances:		NWI Classifica	ntion:	PFO1/4B	
	lydric Soils are Present:		1	Disturbed 1	Parameters (se			Local R		CONCAVE	
	d Hydrology is Present:		I		Parameters (se			Land	-	SLOPE	
Sampled Are	a is within a Wetland:				Hydrology (se			Sloj	e %:	1-3	
Hydrology Parameter:											
	Pris	nary Indice	ators:						Secondary Indi	cators:	
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)		Aquatic Fa Marl Depo Hydrogen Oxidized F Presence o Recent Iron Thin Muck		C1) Living Roo (C4)				Sparsely V Drainage Moss Trir Dry-Sease Crayfish I Saturation Stunted or	pil Cracks (B6) /egetated Conca Patterns (B10) n Lines (B16) on Water Table (Burrows (C8) Visible on Aeri Stressed Plants nic Position (D2)	(C2) al Imagery (C9 (D1)	
Inundation Visible on A	erial Imagery (B7)	Other							quitard (D3)		
								X FAC-Neu			
Water Depths (inches):				Remarks:	HVDDOLO	OCV DADA	L METER NO	1 0	Moss (D8)		
Surface Water:				Kemarks.	HIDKOLO	JGI FAKA	WEIER NO	I MEI.			
Water Table:											
Saturated soil:	>20										
Vegetation Parameter:											
Daminan	4 C	£44	n IND	%		Non De		•	C4	IND	0/
Dominan Liquidambar		Stratui Tree	FAC	60			minant Spec ros virginian		Stratum Tree		15
Acer ri		Tree	FAC	30			ardia areolai		Herbaceous	OBL	10
Quercus		Sapling		15							
Quercu. Manalla		Sapling		10							
Morella Microstegius		Shrub Herbaceo		10 70							
Microsiegiui	n vimineum	петрасес	ous FAC	70							
0/ 5	: F1C "	020/						D 1 7.1	2.0		
	species FAC or wetter: FOR STATUS ACCORDING		ONAL WETLAND	DI ANTI ICT			C-11	Prevalence Index		-	
Rapid Test for Hydrophyt		10 2016 NA11	ONAL WEILAND	Remarks:	VECETAT	TON DADA	METER ME	ted using all species pr	eseni.		
	ce Test >50%: X	•		Kemarks.	VEGETAI	IONTAKA	MIETEK MI	21.			
	Index is ≤ 3.0 : X										
Problematic Hydrophyt	ic vegetation:	<u>.</u>									
Soil Parameter:				1							
Son I di dineter.	N	Iatrix		1		Redox Fea	fures				
Depth (inches)	Color (Mois		%	Colo	r (Moist)	%	Туре	Loc		Texture	
0-8	10YR 2/2	-/	100		(======)	7.	-,,,,			LOAM	
8-20	10YR 4/2		100							CLAY LOA!	M
. 20	10111 1/2			1					İ		
	1			l l				1			
				1				1			
Hydric Soil Indicators:			•				•		•		
Histosol (A1)	Coast Pr	airie Redox	(A16)		Redox Dark	Surface (F6)		Indicators for Pi	roblematic Hyd	tric Soils
Histic Epipedon (A2)		lucky Mine			_	ark Surface (J.	,	
Black Histic (A3)		leyed Matri			_	ressions (F8)			1cm Mucl	c (AQ)	
		-	IX (54)								
Hydrogen Sulfide (A4)		edox (S5)			_Marl (F10)				2cm Mucl		
Stratified Layers (A5)	Stripped	Matrix (S6)		Depleted O	chric (F11)			Reduced V	Vertic (F18)	
Organic Bodies (A6)	Dark Sur	face (S7)			Iron-Manga	nese Masses	(F12)		Piedmont	Floodplain Soi	ıls (F19)
	Organic Bodies (A6) Dark Surface (S7) 5cm Mucky Mineral (A7) Polyvalue Below Surface (S8)				Umbric Sur						
				_			·				
Muck Presence (A8)		rk Surface (_	Delta Ochri			Red Parent Material (TF2)			
1 cm Muck (A9)	Loamy N	Aucky Mine	eral (F1)	Reduced Vertic (F18) Very Shallow Dark Sur						iow Dark Surfa	ace (TF12)
Depleted Below Dark S	urface (A Loamy C	Bleyed Matı	rix (F2)	Piedmont Floodplain Soils (F19) Other							
Thick Dark Surface (A1		Matrix (F3		_	_	-	y Soils (F20)	,			
	,	(1 .	,	_			, (* 20)				
Restrictive Layer (If Ob	served)			Remarks:	SOIL PAR	AMETER N	OT MET.	<u> </u>			
Type:					~ 1 /1K						
Depth (inches):			-								



Stantec A					ND DELINE <i>A</i> 'ARY AFFAII		Section/To	ownship/Range:		N/A						
	//County:	CONTRIBE	VIRGINIA		711(171117111	140		LRR or MLRA):		T						
	State:		VIRG					Site Latitude:		36.816431°						
Invest								Site Longitude:		-75.97849°						
	Date:		10/16/	2017			Soil N	Map Unit Name:	NA	AWNEY SILT LOA	м					
Summary of Findings:					WETLAN	ND AT FLAC	G 'KPS-19'.									
Hydrophytic	Vegetation is Present:				Normal Circ	cumstances:	X	NWI Classifica	ition:	PFO1/4B						
	ydric Soils are Present:				Parameters (see	_		Local Re		CONCAVE						
	d Hydrology is Present:				Parameters (see	_		Landf		SLOPE 1-3						
Hydrology Parameter:	a is within a Wetland:	Λ	Atypi	icai Ciiiiate/	Hydrology (see	e Kemarks).		Siop	e %:	1-3						
Trydrology rarameter.	Pri	mary Indicat	tors:						Secondary Indi	cators:						
		•						Surface So	oil Cracks (B6)							
Surface Water (A1)		-	ed Leaves (B9)			Sparsely Vegetated Concave Surface (B8)									
High Water Table (A2) Saturation (A3)		Aquatic Fau Marl Depos							Patterns (B10) n Lines (B16)							
Water Marks (B1)			ulfide Odor (C	C1)					n Water Table ((C2)						
Sediment Deposits (B2)	X	Oxidized RI	hizospheres on	Living Roo	ts (C3)			Crayfish E	Burrows (C8)							
Drift Deposits (B3)		_	Reduced Iron		(00)		Saturation Visible on Aerial Imagery (C9)									
Algal Mat or Crust (B4) Iron Deposits (B5)		_	Reduction in Surface (C7)	Filled Soils	(C6)		Stunted or Stressed Plants (D1) X Geomorphic Position (D2)									
Inundation Visible on A	erial Imagery (B7)	Other	Surface (C7)						quitard (D3)	,						
	<u> </u>	-						X FAC-Neut								
								Sphagnum	Moss (D8)							
Water Depths (inches):				Remarks:	HYDROLO	GY PARAN	IETER MET.									
Surface Water: Water Table:																
Saturated soil:																
Vegetation Parameter:																
Dominan	t Snecies	Stratum	IND	%		Non-Don	ninant Species		Stratum	IND %	7					
Liquidambar		Tree	FAC	40			lium scopariun		Herbaceous	FACW 10	1					
Acer ru		Tree Sapling	FAC FAC	25 10		Lonice	ra japonica		Herbaceous	FACU 10						
	Quercus phellos Sapling FACY															
	Morella cerifera Shrub FAC accinium formosum Shrub FAC															
Microstegiui		Herbaceou		10 35												
Woodwardi	a areolata	Herbaceou	us OBL	15												
										.1	_					
	species FAC or wetter:						Pr	revalence Index:	2.8	_						
	FOR STATUS ACCORDING	TO 2016 NATIO	NAL WETLAND	1	THE CHEMP A MIN	ON DADA		using all species pr	resent.							
Rapid Test for Hydrophyt	ce Test >50%: X	-		Remarks:	VEGETATI	ION PARAN	METER MET.									
	Index is ≤ 3.0 : X	-														
Problematic Hydrophyt		- -														
Soil Parameter:	,	fatei-		T.		Dadan Faat										
Depth (inches)	Color (Mois	Matrix	%	Colo	r (Moist)	Redox Feat	Type	Loc		Texture						
0-6	10YR 2/2	7	100		(V K -			LOAM						
6-20	10YR 4/2		85	10	YR 5/8	10	C	M		CLAY LOAM						
				10	YR 4/6	5	С	PL								
				1					1							
Hydric Soil Indicators:	<u> </u>	<u> </u>		<u> </u>		1		<u> </u>	<u> </u>							
Histosol (A1)	Coast Pr	airie Redox	(A16)		Redox Dark	Surface (F6)		1	Indicators for P	roblematic Hydric 3	Soils					
Histic Epipedon (A2)		lucky Minera		_	Depleted Da		7)			-,						
Black Histic (A3)	sk Histic (A3) Sandy Gleyed Matrix (S4)				Redox Depre	essions (F8)			1cm Mucl							
Hydrogen Sulfide (A4)	<u> </u>				Marl (F10)	hair (P11)			2cm Mucl							
	Stratified Layers (A5) Organic Bodies (A6) Stripped Matrix (S6) Dark Surface (S7)				Depleted Och Iron-Mangan					Vertic (F18) Floodplain Soils (F	₹ 1 9)					
5cm Mucky Mineral (A				_			112)			is Bright Loamy So						
Muck Presence (A8)					Umbric Surface (F13) Delta Ochric (F17)				Red Parent Material (TF2)							
1 cm Muck (A9)		Mucky Miner		Reduced Vertic (F18) Very Shallow Dark Surfa					low Dark Surface (TF12)						
Depleted Below Dark S		Gleyed Matri		Piedmont Floodplain Soils (F19) Other												
Thick Dark Surface (A1	2) X Depleted	d Matrix (F3))	Anomalous Bright Loamy Soils (F20)												
Restrictive Layer (If Ob	served)			Remarks: SOIL PARAMETER MET.												
Depth (inches):	Type: Depth (inches):															

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Stantec		MR CAMP PE										
	Applicant: VIF y/County:	RGINIA DEPA	KTMENT VIRGINIA		ARY AFFAI	RS		ownship/Range: LRR or MLRA):		N/A T		
Cit	State:		VIRGINIA				Subregion (L	Site Latitude:		36.8164	31°	
Inves	tigator(s):		K. PRESC					Site Longitude:		-75.9784		
	Date:		8/2/2					Iap Unit Name:	DUC	KSTON FI		
								-				
Summary of Findings:						ND AT FLA						
	c Vegetation is Present:	X		D: 1 1		cumstances:	X	NWI Classificati		N/A		
	lydric Soils are Present:	X			Parameters (se	-		Local Rel		NONI		
	d Hydrology is Present: ea is within a Wetland:	X			Parameters (se Hydrology (se	-	_	Landfo Slope		FLAT 0-1		
Hydrology Parameter:	a is within a victiand.	А	Atypi	cai Cilliate/	rryurology (sc	c Remarks).		Бюрс	, ,0.	0-1		
Trydrology 1 arameter.	Pri	mary Indicators	i:					S	econdary Indic	ators:		
									l Cracks (B6)			
Surface Water (A1)		Water Stained	Leaves (B9))			Sparsely Vegetated Concave Surface (B8)					
High Water Table (A2)		Aquatic Fauna							atterns (B10)			
X Saturation (A3)		Marl Deposits						Moss Trim		~~:		
Water Marks (B1)		Hydrogen Sulf			(02)				Water Table (Co)	22)		
Sediment Deposits (B2) Drift Deposits (B3)		Oxidized Rhize Presence of Re	-		is (C3)			Crayfish Bu	irrows (C8) Visible on Aeria	1 Imagary (C0)	
Algal Mat or Crust (B4		Recent Iron Re			(C6)				Stressed Plants ((3)	
Iron Deposits (B5)	<u> </u>	Thin Muck Sur			()				c Position (D2)	/		
Inundation Visible on A	Aerial Imagery (B7)	Other						Shallow Ag				
		-						X FAC-Neutra	al Test (D5)			
								Sphagnum 1	Moss (D8)			
Water Depths (inches):				Remarks:	HYDROL	GY PARAN	IETER MET.					
Surface Water												
Water Table Saturated soil												
Vegetation Parameter:	. 0											
, egetation I arameter.												
Dominar	•	Stratum	IND	%			ninant Species		Stratum	IND	%	
Morella Juncus s		Shrub Herbaceous	FAC FACW	5 60			ıs pendulus ra anonyma		Herbaceous Herbaceous	OBL FACU	30 20	
Juneus St. Juneus		Herbaceous	FAC	60			s ambigua		Herbaceous	OBL	15	
							elium aciculare		Herbaceous	FACU	10	
							a virginica		Herbaceous	FACW	5	
						Dicnantnetti	ım scabriusculı	ım	Herbaceous	OBL	5	
% Dominant	species FAC or wetter:	100%					Pr	evalence Index:	2.4			
	TOR STATUS ACCORDING		L WETLAND	PLANT LIST				using all species pre				
Rapid Test for Hydrophy	tic Vegetation:			Remarks:	VEGETAT	ION PARAN	METER MET.					
Dominan	ce Test >50%: X	-										
Prevalence	Index is ≤ 3.0 : X	-										
Problematic Hydrophy	tic Vegetation:	-										
Soil Parameter:												
Donth (inches)		Matrix	0/	Cala	- (Maint)	Redox Feat		T		Toutes		
Depth (inches) 0-2	Color (Mois 10YR 4/2	1)	90		r (Moist) YR 5/3	% 10	Type C	Loc M		Textur SANDY L		
2-20	5Y 5/2		95		YR 5/8	5	C	M M		SANDY L SAND		
2-20	31 3/2		73	7.5	TK 5/6	3	C	141		SAIN	,	
				1		1 1						
				l		1						
Hydric Soil Indicators:	L.							<u> </u>				
Histosol (A1)	Coast Pr	airie Redox (Al	(6)		Redox Dark	Surface (F6)		In	dicators for Pre	oblematic F	lydric Soils	s
Histic Epipedon (A2)	Sandy M	lucky Mineral (S1)		Depleted Da	ırk Surface (F	7)					
Black Histic (A3)	Sandy G	leyed Matrix (S	4)	_	Redox Depr	essions (F8)		_	1cm Muck	(A9)		
Hydrogen Sulfide (A4)	X Sandy R			_	Marl (F10)			_	2cm Muck			
Stratified Layers (A5)		Matrix (S6)			Depleted Oc			_	Reduced V			
Organic Bodies (A6)		rface (S7)	(00)	_	_	nese Masses (F12)	- 1	Piedmont F	-		
5cm Mucky Mineral (A		e Below Surfac	e (S8)	_	Umbric Surf			-	Anomalous Rad Parant	-		F20)
Muck Presence (A8) 1 cm Muck (A9)		rk Surface (S9) Mucky Mineral	(F1)		Delta Ochric Reduced Ve			- 1	Red Parent Very Shall			12)
Depleted Below Dark S		ииску міпегаі (Gleyed Matrix (l		_			e (F10)	-	Other	ow Dark St	mace (IFI	<i>2)</i>
Thick Dark Surface (A		ileyed Matrix (l l Matrix (F3)	1.2)	_		oodplain Soil Bright Loamy		-	Omer			
I IIICK Dark Surface (A.	Depleted	1 1410UIA (1°3)		_	_ momatous	ongin Loalily	50115 (1.70)					
Restrictive Layer (If Ob	served)			Remarks:	SOIL PAR	AMETED M	FT					
						AMELEK						
Туре					SOIL TIME	ANIE I EK NI	LI.					

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Chambo a	MR CAMP PEND									
Tippireant: +11	RGINIA DEPART			ARY AFFAIR	RS		vnship/Range:		N/A	
City/County:	VII		BEACH			Subregion (LR			T	
State:	v	VIRGI	RAVES				Site Latitude: ite Longitude:		36.816431° -75.97849°	
Investigator(s): Date:	K.	8/2/20					p Unit Name:	NE	WHAN FINE SAN	D
Date.		6/2/20)1 /			Soli Ma	ip Ollit Name.	NE	WHAIN FINE SAIN	D
Summary of Findings:				UPLAND !	NEAR FLA	G 'KPD-11'.				
Hydrophytic Vegetation is Present	:			Normal Circ	cumstances:	X N	WI Classificat	ion:	N/A	
Hydric Soils are Present	:		Disturbed P	arameters (see	e Remarks):		Local Rel	lief:	NONE	
Wetland Hydrology is Present	:	P	roblematic P	arameters (see	e Remarks):		Landfo	orm:	FLAT	
Sampled Area is within a Wetland	:	Atypic	cal Climate/F	Hydrology (see	e Remarks):		Slope	%:	0-1	
Hydrology Parameter:										
Pri	mary Indicators:							econdary Indic	ators:	
Surface Water (A1)	W-+ C+-: I	(BO)				_		l Cracks (B6)	Cf (D9)	
High Water Table (A2)	Water Stained Lea Aquatic Fauna (B)					_		egetated Concar atterns (B10)	ve Surface (B8)	
Saturation (A3)	Marl Deposits (B1					_	Moss Trim			
Water Marks (B1)	Hydrogen Sulfide		1)			_		Water Table (C2)	
Sediment Deposits (B2)	Oxidized Rhizospl			s (C3)		_	Crayfish Bu		Í	
Drift Deposits (B3)	Presence of Reduc	ed Iron ((C4)				Saturation V	Visible on Aeria	al Imagery (C9)	
Algal Mat or Crust (B4)	Recent Iron Reduc		illed Soils (C6)		_		Stressed Plants	(D1)	
Iron Deposits (B5)	_Thin Muck Surfac	e (C7)				<u> </u>	_	c Position (D2)		
Inundation Visible on Aerial Imagery (B7)	Other					-	Shallow Aq			
						<u> </u>	FAC-Neutra			
Water Depths (inches):			Remarks:	HYDROLO	CV DADA	METER NOT M	Sphagnum 1	M1022 (D9)		
Surface Water:			remarks.	TIDKOLO	JIIANA	TELEK NUL M				
Water Table:										
Saturated soil: 18										
Vegetation Parameter:										
D' d G'	50	TND	0/		N. D.			C11	IND 0/	1
Dominant Species Diodia teres	Stratum Herbaceous	IND FACU	60			minant Species elium aciculare		Stratum Herbaceous	IND % FACU 10	-
Andropogon virginicus	Herbaceous	FAC	30			ia occidentalis		Herbaceous	FACU 5	
						ım medium		Herbaceous	FAC 5	
						s scirpoides us angustifolius		Herbaceous Herbaceous	FACW 5 FACW 3	
					110111111111	as ungusujonus		ricroaccous	TACW 3	
% Dominant species FAC or wetter							valence Index:	3.6	•	
NOTE: SPECIES INDICATOR STATUS ACCORDING	TO 2016 NATIONAL W			**************************************			ing all species pre	sent.		
Rapid Test for Hydrophytic Vegetation:	_		Remarks:	VEGETATI	ION PARA	METER NOT M	ET.			
Dominance Test >50%:	=									
Prevalence Index is ≤ 3.0: Problematic Hydrophytic Vegetation:	=									
1 tobiematic frydrophytic vegetation.	_									
Soil Parameter:										
1	Matrix				Redox Fea	tures				
Depth (inches) Color (Moi	st)	%	Color	(Moist)	%	Type	Loc		Texture	
0-14 2.5Y 5/3		95	7.5Y	/R 5/3	5	C	M		FINE SAND	
14-18 10YR 6/4		90		'R 5/2	10	D	M		FINE SAND	
18-20 2.5Y 6/3	Ģ	98	2.5	Y 6/8	2	С	M		FINE SAND	
					ļ					
H I C II I										
Hydric Soil Indicators:	D. 1. (A10)			D.I. D.I.	C C CC		1 ,	L . C D	11 . 11 1 . 0	• • • • • • • • • • • • • • • • • • • •
	rairie Redox (A16) Mucky Mineral (S1)			Redox Dark S Depleted Dar			In	aicators for Pr	oblematic Hydric S	ous
<u> </u>	Gleyed Matrix (S4)			Redox Depre		:1)		1cm Muck	(A9)	
				Marl (F10)	(1 0)		-	2cm Muck		
<u> </u>	-									
Hydrogen Sulfide (A4) Sandy F	Redox (S5) I Matrix (S6)			Depleted Och	hric (F11)		-	Reduced V		
Hydrogen Sulfide (A4) Stratified Layers (A5) Stripped	Redox (S5)		_	_		(F12)	-	Reduced V		19)
Hydrogen Sulfide (A4) Sandy F Stratified Layers (A5) Strippec Organic Bodies (A6) Dark Su	Redox (S5) I Matrix (S6)	58)		Depleted Och	iese Masses	(F12)	-	Reduced V Piedmont I	ertic (F18)	
Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) Dark Su 5cm Mucky Mineral (A7) Muck Presence (A8) Thin Da	Redox (S5) I Matrix (S6) urface (S7) ue Below Surface (S9)			Depleted Och Iron-Mangan Umbric Surfa Delta Ochric	nese Masses ace (F13) (F17)	(F12)	-	Reduced V Piedmont I Anomalous Red Parent	ertic (F18) Floodplain Soils (F s Bright Loamy Soi Material (TF2)	ls (F20)
Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) Dark Su 5cm Mucky Mineral (A7) Muck Presence (A8) Thin Da 1 cm Muck (A9) Loamy	Redox (S5) I Matrix (S6) Irface (S7) ue Below Surface (S9) Mucky Mineral (F1)			Depleted Och Iron-Mangan Umbric Surfa Delta Ochric Reduced Ver	nese Masses ace (F13) (F17) rtic (F18)		-	Reduced V Piedmont I Anomalous Red Parent Very Shall	ertic (F18) Floodplain Soils (F Bright Loamy Soi	ls (F20)
Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) Dark Su 5cm Mucky Mineral (A7) Polyval Muck Presence (A8) Thin Da 1 cm Muck (A9) Depleted Below Dark Surface (A) Loamy	Redox (S5) I Matrix (S6) Irface (S7) In Below Surface (S9) Mucky Mineral (F1) Gleyed Matrix (F2)			Depleted Och Iron-Mangan Umbric Surfa Delta Ochric Reduced Ver Piedmont Flo	nese Masses ace (F13) (F17) rtic (F18) podplain Soi	ls (F19)	-	Reduced V Piedmont I Anomalous Red Parent	ertic (F18) Floodplain Soils (F s Bright Loamy Soi Material (TF2)	ls (F20)
Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) Dark Su 5cm Mucky Mineral (A7) Polyval Muck Presence (A8) Thin Da 1 cm Muck (A9) Depleted Below Dark Surface (A) Loamy	Redox (S5) I Matrix (S6) Irface (S7) ue Below Surface (S9) Mucky Mineral (F1)			Depleted Och Iron-Mangan Umbric Surfa Delta Ochric Reduced Ver	nese Masses ace (F13) (F17) rtic (F18) podplain Soi	ls (F19)	-	Reduced V Piedmont I Anomalous Red Parent Very Shall	ertic (F18) Floodplain Soils (F s Bright Loamy Soi Material (TF2)	ls (F20)
Hydrogen Sulfide (A4) Sandy F Stratified Layers (A5) Strippec Organic Bodies (A6) Dark Su 5cm Mucky Mineral (A7) Muck Presence (A8) Thin Da 1 cm Muck (A9) Depleted Below Dark Surface (A Loamy Thick Dark Surface (A12) Deplete	Redox (S5) I Matrix (S6) Irface (S7) In Below Surface (S9) Mucky Mineral (F1) Gleyed Matrix (F2))		Depleted Oct Iron-Mangan Umbric Surfa Delta Ochric Reduced Ver Piedmont Flo Anomalous E	nese Masses ace (F13) (F17) rtic (F18) podplain Soi Bright Loam	ls (F19) y Soils (F20)		Reduced V Piedmont I Anomalous Red Parent Very Shall	ertic (F18) Floodplain Soils (F s Bright Loamy Soi Material (TF2)	ls (F20)
Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) Dark Su 5cm Mucky Mineral (A7) Polyval Muck Presence (A8) Thin Da 1 cm Muck (A9) Depleted Below Dark Surface (A) Loamy	Redox (S5) I Matrix (S6) Irface (S7) In Below Surface (S9) Mucky Mineral (F1) Gleyed Matrix (F2))	Remarks:	Depleted Och Iron-Mangan Umbric Surfa Delta Ochric Reduced Ver Piedmont Flo	nese Masses ace (F13) (F17) rtic (F18) podplain Soi Bright Loam	ls (F19) y Soils (F20)		Reduced V Piedmont I Anomalous Red Parent Very Shall	ertic (F18) Floodplain Soils (F s Bright Loamy Soi Material (TF2)	ls (F20)



Stantec		MR CAMP PER RGINIA DEPA					C+: /T-	wnship/Range:		NT/A		
	y/County:		VIRGINIA		AKI AFFAL	KS		RR or MLRA):		N/A T		
Cit.	State:		VIRGI				Buolegion (E	Site Latitude:		36.81643	1°	
Inves	tigator(s):		K. PRESG	RAVES				Site Longitude:		-75.9784	9°	
	Date:		8/2/2	017			Soil M	ap Unit Name:	e: DUCKSTON FINE SAND			
Summary of Findings:					WETI AND	NEAD EL	AG 'KPC-29'.					
	c Vegetation is Present:	X				cumstances:		NWI Classificat	ion:	N/A		
	lydric Soils are Present:	X		Disturbed 1	Parameters (se	-		Local Re		CONCA	VE.	
Wetlan	d Hydrology is Present:	X	F	roblematic l	Parameters (se	e Remarks):		Landfo	orm:	FLAT		
	a is within a Wetland:	X	Atypi	cal Climate/	Hydrology (se	e Remarks):		Slope	e %:	0-1		
Hydrology Parameter:												
	Prü	mary Indicators	<u>: </u>						econdary Indical 1 Cracks (B6)	ators:		
Surface Water (A1)		Water Stained I	eaves (B9)	,					egetated Concav	e Surface (1	38)	
High Water Table (A2)		Aquatic Fauna							atterns (B10)		-/	
X Saturation (A3)		Marl Deposits ((B15)				·-	Moss Trim	Lines (B16)			
Water Marks (B1)		Hydrogen Sulfi							Water Table (C	C2)		
Sediment Deposits (B2)		Oxidized Rhizo Presence of Rec			ts (C3)		.=		urrows (C8) Visible on Aeria	1.1	3 0)	
Drift Deposits (B3) Algal Mat or Crust (B4)		Recent Iron Rec			(C6)		.=		Stressed Plants (.9)	
Iron Deposits (B5)		Thin Muck Sur		med Bons	(00)				c Position (D2)	D1)		
Inundation Visible on A	erial Imagery (B7)	Other					· -		uitard (D3)			
		-					·-	X FAC-Neutr				
W				ln :	******	OT :	(F)(F)(F)	Sphagnum	Moss (D8)			
Water Depths (inches): Surface Water				Remarks:	HYDKOLO	JGY PARAN	METER MET.					
Water Table												
Saturated soil												
Vegetation Parameter:				•								
Dominan	t Species	Stratum	IND	%		Non-Dor	minant Species		Stratum	IND	%	
Morella		Shrub	FAC	7			ia scandens		Herbaceous	FACW	30	
Juncus so		Herbaceous	FACW	60			elium scoparium		Herbaceous	FACW	20	
Juncus	tenuis	Herbaceous	FAC	50			hloa muricata sempervirens		Herbaceous Herbaceous	FACW FACW	15 5	
					Rhexia virginica Herbaceous FACW					5		
						Erige	ron annuus		Herbaceous	FACU	2	
	species FAC or wetter: TOR STATUS ACCORDING		AND AND A	N A NUMBER OF STREET				evalence Index: sing all species pre	2.3			
Rapid Test for Hydrophyt		10 2016 NATIONAL	WEILANDI	Remarks:	VEGETAT	ION PARAN	METER MET.	sing all species pre	sent.			
	ce Test >50%: X	-		rtomana	, 2021.11							
Prevalence	Index is ≤ 3.0 : X	_										
Problematic Hydrophyt	ic Vegetation:	-										
C 3D 4												
Soil Parameter:		Matrix		I		Redox Feat	tures					
Depth (inches)	Color (Mois		%	Colo	r (Moist)	%	Туре	Loc		Texture	e	
0-2	10YR 3/3		100							LOAMY S	AND	
2-4	2.5Y 5/2		93		YR 3/6	5	C	M		SAND		
4.00	0.537.575		90		YR 6/8	2	C	PL		0.4375		
4-20	2.5Y 5/2		80	7.5	YR 4/6	20	С	M		SAND		
Hydric Soil Indicators:	L			l .		1						
Histosol (A1)	Coast Pr	airie Redox (A1	6)		Redox Dark	Surface (F6))	In	dicators for Pro	oblematic H	ydric Soils	
Histic Epipedon (A2)	Sandy M	lucky Mineral (S	S1)	_	Depleted Da	rk Surface (F	F7)					
Black Histic (A3)		leyed Matrix (S	4)		Redox Depre	essions (F8)			1cm Muck			
Hydrogen Sulfide (A4)	X Sandy R			_	Marl (F10)	Andre (PRIN)			2cm Muck			
Stratified Layers (A5) Organic Bodies (A6)		Matrix (S6) rface (S7)			Depleted Oc	enric (F11) nese Masses (Œ12)		Reduced V	eruc (F18) Ioodplain S	oils (F10)	
5cm Mucky Mineral (A		ie Below Surface	e (S8)		Umbric Surf		(112)	-		Bright Loa		F20)
Muck Presence (A8)		rk Surface (S9)	,	_	Delta Ochric			•		Material (T		,
1 cm Muck (A9)		Mucky Mineral (F1)	_	Reduced Ve					ow Dark Su		2)
Depleted Below Dark S		Gleyed Matrix (F		_	Piedmont Fl	oodplain Soil	ls (F19)		Other			
Thick Dark Surface (A1	2) Depleted	l Matrix (F3)			Anomalous	Bright Loamy	v Soils (F20)	l '				
					_		y Bolls (1 20)					
D				n :	_							
Restrictive Layer (If Ob Type:				Remarks:	SOIL PAR							



Stantec A			Γ OF MILITARY AFFA		Section/Tov	vnship/Range:	:	N/A	
	//County:		A BEACH		Subregion (LF			T	
	State:		JINIA		-	Site Latitude:	:	36.816431°	
Invest	tigator(s):	K. PRES			-	ite Longitude:		-75.97849°	
	Date:	8/2/2	2017		Soil Ma	ap Unit Name:	DUC	CKSTON FINE SA	ND
Summary of Findings:			UPLAND	NEAR FLA	AG 'KPC-29'.				
, ,	Vegetation is Present: X			ircumstances:		WI Classifica	ation:	N/A	
Н	ydric Soils are Present: X		Disturbed Parameters (s	ee Remarks):		Local Ro	elief:	CONVEX	
Wetland	d Hydrology is Present:		Problematic Parameters (s	ee Remarks):	<u> </u>	Landf	form:	SLOPE	
	a is within a Wetland:	Atyp	oical Climate/Hydrology (s	ee Remarks):		Slop	ne %:	1-3	
Hydrology Parameter:	D	. J					C J I - J: -		
	Primary I	iaicators:					Secondary Indic oil Cracks (B6)	ators:	
Surface Water (A1)	Water	Stained Leaves (B9	9)		-		egetated Concav	ve Surface (B8)	
High Water Table (A2)		c Fauna (B13)			_		Patterns (B10)		
Saturation (A3)		Deposits (B15)			_		n Lines (B16)		
Water Marks (B1)		gen Sulfide Odor (-		on Water Table (C	C2)	
Sediment Deposits (B2) Drift Deposits (B3)		ce of Reduced Iron	n Living Roots (C3)		-		Burrows (C8) Visible on Aeria	al Imagery (C9)	
Algal Mat or Crust (B4)		Iron Reduction in	* /		_		Stressed Plants		
Iron Deposits (B5)		Muck Surface (C7)	. ,		_		nic Position (D2)	. ,	
Inundation Visible on A	erial Imagery (B7) Other				_		equitard (D3)		
					_	X FAC-Neut			
Water Depths (inches):			Remarks: HYDROL	OCV DADA	L METER NOT M	1 0	n Moss (D8)		
Surface Water:			Tellians. HIDROL	OGLIANA	ETEK NOT M				
Water Table:									
Saturated soil:	>20								
Vegetation Parameter:									
Dominan	t Species Str	atum IND	%	Non-Do	minant Species		Stratum	IND %	٦
Dichantheliu	m aciculare Herb	aceous FACU	10	Persicar	ia pensylvanica		Herbaceous	FACW 5	1
Juncus sc Juncus		aceous FACW FAC	10		perus iria chloa muricata		Herbaceous Herbaceous	FACW 5 FACW 5	
Hypericum ci		aceous FACW	10		cum virgatum		Herbaceous	FAC 3	
Digitaria is	schaemum Herb	aceous UPL	10		elium scoparium		Herbaceous	FACW 3	
				Rhyncho:	spora inexpansa		Herbaceous	FACW 2	
									_
% Dominant	species FAC or wetter:	0%			Pre	valence Index:	: 2.9		
	TOR STATUS ACCORDING TO 2016		PLANT LIST			ing all species pr			
Rapid Test for Hydrophyt			Remarks: VEGETAT	ΓΙΟΝ PARA	METER MET.				
	ce Test >50%: X								
	Index is ≤ 3.0: X								
Problematic Hydrophyt	ic Vegetation:								
Soil Parameter:			1						
	Matrix			Redox Fea	itures				
Depth (inches)	Color (Moist)	%	Color (Moist)	%	Type	Loc		Texture	
0-2	10YR 5/3	100			+		_	NDY CLAY LOA	
2-3 3-8	2.5Y 3/3	100			+		SA	NDY CLAY LOAM	.M
8-20	5G 5/1 2.5Y 5/6	100 90	7.5YR 5/6	10	С	M	EU	CLAY LOAM NE SANDY LOAN	M
0-20	2.31 310	70	7.51K 3/0	10		171	r ii	SIMBI LOAD	**
Hydric Soil Indicators:	Į.		<u>.</u>	l .					
Histosol (A1)	Coast Prairie R	edox (A16)	Redox Darl	k Surface (F6)	1	Indicators for Pr	oblematic Hydric S	Soils
Histic Epipedon (A2)	Sandy Mucky N			ark Surface (F7)				
Black Histic (A3)	X Sandy Gleyed I			ressions (F8)			1cm Muck		
Hydrogen Sulfide (A4) Stratified Layers (A5)	Sandy Redox (S Stripped Matrix	*	Marl (F10)	Ochric (F11)			2cm Muck	(A10) Vertic (F18)	
Organic Bodies (A6)	Dark Surface (S			anese Masses	(F12)			Floodplain Soils (F	719)
5cm Mucky Mineral (A'			Umbric Sur		` /			s Bright Loamy So	
Muck Presence (A8)	Thin Dark Surf		Delta Ochr					t Material (TF2)	` ′
1 cm Muck (A9)	Loamy Mucky		Reduced V					ow Dark Surface (TF12)
Depleted Below Dark St	· · · · · · · · · · · · · · · · · · ·			loodplain Soi			Other		
Thick Dark Surface (A1	2) Depleted Matri	(F3)	Anomalous	Bright Loam	ny Soils (F20)				
Restrictive Layer (If Ob.	served)		Remarks: SOILS AR	Е НІСНІ V	VARIABLE AN	D DISTURP	ED.		
Type:			SOILS AN			_ DEDITION			
Depth (inches):									



Stantec ,	·	MR CAMP PEN					C+: /T			NI/A		
	Applicant: VIR y/County:	RGINIA DEPAI	/IRGINIA		AKT AFFAII	KS		ownship/Range: LRR or MLRA):		N/A T		
Cit	State:	<u>'</u>	VIRGI				Subregion (1	Site Latitude:		36.81643	1°	
Inves	tigator(s):]	K. PRESG	RAVES				Site Longitude:	-75.97849°			
	Date:		8/2/2	017			Soil I	Map Unit Name:	DUCKSTON FINE SAND			
Summary of Findings:					WETI AND	NEAD EL	AG 'KPC-44'.					
	c Vegetation is Present:	X			Normal Circ			NWI Classificat	ion:	N/A		
	lydric Soils are Present:	X		Disturbed l	Parameters (see			Local Re		CONCAV	Æ	
Wetlan	d Hydrology is Present:	X	F	roblematic l	Parameters (see	e Remarks):		Landfo	rm:	SLOPE		
	a is within a Wetland:	X	Atypi	cal Climate/	Hydrology (see	e Remarks):		Slope	%:	0-2		
Hydrology Parameter:												1
	Prii	mary Indicators:							econdary Indic l Cracks (B6)	ators:		
Surface Water (A1)		Water Stained I	eaves (B9))					egetated Concar	ve Surface (F	38)	
High Water Table (A2)		Aquatic Fauna (_ · ·	atterns (B10)		-,	
X Saturation (A3)	_	Marl Deposits (B15)					Moss Trim	Lines (B16)			
Water Marks (B1)		Hydrogen Sulfic							Water Table (C2)		
Sediment Deposits (B2) Drift Deposits (B3)		Oxidized Rhizo Presence of Red		_	is (C3)			Crayfish Bu	ırrows (C8) Visible on Aeria	.1 I (C	70)	
Algal Mat or Crust (B4)		Recent Iron Rec			(C6)				Stressed Plants		-9)	
Iron Deposits (B5)	·	Thin Muck Surf			()			X Geomorphi				
Inundation Visible on A	Aerial Imagery (B7)	Other						Shallow Ac	uitard (D3)			
								X FAC-Neutr				
Water Dad - /: 1				Remarks:	HADDOLO	CVDADA	AETED MEE	Sphagnum 1	Moss (D8)			
Water Depths (inches): Surface Water	:			Keinarks:	H 1 DKOLO	GI PAKAN	METER MET.					
Water Table												
Saturated soil	: 0											
Vegetation Parameter:												
Dominar	t Species	Stratum	IND	%		Non-Dor	ninant Species		Stratum	IND	%	
Juncus se	cirpoides	Herbaceous	FACW	20		Dichanth	elium aciculare		Herbaceous	FACU	10	
Rhynchospor		Herbaceous Herbaceous	FACW FAC	20 15			a virginiana ia virginica		Herbaceous Herbaceous	FACW FACW	10 2	
Anaropogoi	Andropogon virginicus Herbaceous FA					Micx	iu virginicu		Ticroaccous	TACW	2	
% Dominant	species FAC or wetter:	100%					P	revalence Index:	2.5			
NOTE: SPECIES INDICA	TOR STATUS ACCORDING	TO 2016 NATIONAL	WETLAND I	PLANT LIST			Calculated	using all species pre	sent.			
Rapid Test for Hydrophy		-		Remarks:	VEGETATI	ION PARA	METER MET.	•				
	ce Test >50%: X Index is < 3.0: X	-										
Problematic Hydrophy		-										
Troolemade Try drophy		-										
Soil Parameter:												
Depth (inches)	Color (Mois	Matrix	%	Color	r (Moist)	Redox Feat	tures Type	Loc		Texture		
0-2	10YR 4/2		98		YR 3/6	2	С	M		SAND		
2-4	10YR 5/3		100							SAND		
4-20	2.5Y 5/1		98	2.5	5Y 6/6	2	С	M		SAND		
		Ī	-									
Hydria Call Indi	<u> </u>			<u> </u>								
Hydric Soil Indicators: Histosol (A1)	Coast Dr	airie Redox (A1	5)		Redox Dark	Surface (F6)	1	I.e	dicators for Pr	ohlematic U	dric Soils	
Histic Epipedon (A2)		Iucky Mineral (S		_	Depleted Dark			1//	aicuiors joi 17	munc 11)	aric sons	
Black Histic (A3)		leyed Matrix (S4			Redox Depre		•		1cm Muck	(A9)		
Hydrogen Sulfide (A4)	X Sandy R			_	Marl (F10)				2cm Muck			
Stratified Layers (A5)		Matrix (S6)		_	_Depleted Oct		(F12)		Reduced V		11 (F16)	
Organic Bodies (A6)		rface (S7)	(88)	_	Iron-Mangan		(F12)	-		Floodplain So		20)
5cm Mucky Mineral (A Muck Presence (A8)		ie Below Surface rk Surface (S9)	(30)		Umbric Surfa Delta Ochric			-		Bright Loan Material (T		.0)
1 cm Muck (A9)		Mucky Mineral (1	F1)	_	Reduced Ver			-		ow Dark Sur		
Depleted Below Dark S		Gleyed Matrix (F		_	Piedmont Flo		ls (F19)		Other		/	
Thick Dark Surface (A1		l Matrix (F3)		_	Anomalous I	Bright Loam	y Soils (F20)		_			
n												
Restrictive Layer (If Ob	J)			D '	COH P.P.	MEMER	Œ					
Туре				Remarks:	SOIL PARA	AMETER M	IET.					



Stantec A			ND DELINE <i>A</i> ARY AFFAII		Section/To	ownship/Range:		N/A			
City	VIRGINIA		IKI ZIIIZII	IKD .		RR or MLRA):		T			
,	State:		VIRG	INIA				Site Latitude:		36.816431°	
Invest	igator(s):		K. PRESC	GRAVES			Site Longitude:			-75.97849°	
	Date:		10/17/	2017			Soil M	Iap Unit Name:	DUC	CKSTON FINE SA	.ND
C F E!- 1!					TIDE AND A	DOME EL	A CLUZDO ACL				
Summary of Findings:	Vegetation is Present:	. 1				cumstances:	AG 'KPC-46'.	NWI Classificat	tion	N/A	
	ydric Soils are Present:			Disturbed F	Normai Circ Parameters (see		<u>A</u>	Local Re		CONCAVE	
	l Hydrology is Present:		г		Parameters (see			Landfo		SLOPE	
	a is within a Wetland:				Hydrology (see			Slope		0-1	
Hydrology Parameter:	a is within a victiand.	·	Асург	car Cilliate/i	Tydrology (see	c Kemarks).		ыор	C 70.	0-1	
Trydrology 1 arameter.	Pri	mary Indicator	·s.					5	Secondary Indic	eators:	
	1,,	mary mateuror	J.						il Cracks (B6)		
Surface Water (A1)		Water Stained	Leaves (B9)					egetated Concar	ve Surface (B8)	
High Water Table (A2)		Aquatic Fauna		,					atterns (B10)		
Saturation (A3)		Marl Deposits					•		Lines (B16)		
Water Marks (B1)		Hydrogen Sul		(1)			,		n Water Table (C2)	
Sediment Deposits (B2)		Oxidized Rhiz			is (C3)		,		urrows (C8)	,	
Drift Deposits (B3)		Presence of R	•	_	, ,				Visible on Aeria	al Imagery (C9)	
Algal Mat or Crust (B4)		Recent Iron R	eduction in 7	Filled Soils ((C6)			Stunted or	Stressed Plants	(D1)	
Iron Deposits (B5)		Thin Muck Su	ırface (C7)					Geomorphi	ic Position (D2)		
Inundation Visible on A	erial Imagery (B7)	Other						Shallow Ad	quitard (D3)		
_		_						FAC-Neutr	al Test (D5)		
								Sphagnum	Moss (D8)		
Water Depths (inches):	<u></u>		· · · · ·	Remarks:	HYDROLO	GY PARAN	METER NOT N	ИЕТ.			
Surface Water:											
Water Table:											
Saturated soil:	>20										
Vegetation Parameter:											
Dominan	Species	Stratum	IND	%		Non-Dor	minant Species		Stratum	IND %	¬
Dichantheliu		Herbaceous		70			cus tenuis		Herbaceous	FAC 15	1
Andropogon	virginicus	Herbaceous	FAC	40		Juncu	s scirpoides		Herbaceous	FACW 10	
							odia teres		Herbaceous	FACU 10	
					S	choenoplecti	us tabernaemon	tani	Herbaceous	OBL 3	
											_
	species FAC or wetter:		_				Pr	evalence Index:	3.4		
	OR STATUS ACCORDING	TO 2016 NATION	AL WETLAND	PLANT LIST				ising all species pre	esent.		
Rapid Test for Hydrophyt		_		Remarks:	VEGETATI	ION PARA	METER NOT I	МЕТ.			
	ee Test >50%:	_									
	ndex is ≤ 3.0:	_									
Problematic Hydrophyt	ic Vegetation:	_									
Cail Donometon											
Soil Parameter:		Matrix		I		Redox Feat	turos	1			
Depth (inches)	Color (Mois		%	Color	r (Moist)	%	Type	Loc		Texture	
0-5	10YR 3/3		100	Color	(IVIOISE)	70	13pc	Loc		LOAMY SAND	
5-10	2.5Y 6/4		85	105	YR 5/8	15	С	M		FINE SAND	
10-17	10YR 6/6		90		YR 6/3	10	C	M		FINE SAND	
			-	1			-				
Hydric Soil Indicators:											
Histosol (A1)	Coast Pr	rairie Redox (A	.16)		Redox Dark	Surface (F6))	Iı	idicators for Pr	oblematic Hydric S	Soils
Histic Epipedon (A2)		Mucky Mineral			Depleted Date				-	-	
Black Histic (A3)		Gleyed Matrix (Redox Depre				1cm Muck	(A9)	
Hydrogen Sulfide (A4)		Redox (S5)			Marl (F10)				2cm Muck	(A10)	
Stratified Layers (A5)		l Matrix (S6)			Depleted Ocl	hric (F11)				ertic (F18)	
Organic Bodies (A6)		rface (S7)			Iron-Mangan		(F12)		Piedmont I	Floodplain Soils (F	719)
5cm Mucky Mineral (A'	7) Polyvalu	ue Below Surfa	ce (S8)		Umbric Surfa	ace (F13)			Anomalou	s Bright Loamy So	ils (F20)
Muck Presence (A8)		rk Surface (S9)			Delta Ochric					t Material (TF2)	
1 cm Muck (A9)	Loamy l	Mucky Mineral	(F1)		Reduced Ver	rtic (F18)			Very Shall	ow Dark Surface (TF12)
Depleted Below Dark St		-						1	Other	`	
Thick Dark Surface (A1		Gleyed Matrix	(F2)		Piedmont Flo	oodplain Soi	ls (F19)		Other		·
· — `	2) Depleted	Gleyed Matrix (d Matrix (F3)	(F2)		_				ouler		
	2) Depleted	•	(F2)	=	Piedmont Flo				Ounci		
Restrictive Layer (If Ob.		•	(F2)	Remarks:	Piedmont Flo	Bright Loam	y Soils (F20)		ouler		
Restrictive Layer (If Ob. Type:	served)	•	(F2)	Remarks:	Piedmont Flo Anomalous I	Bright Loam	y Soils (F20)		ouler		



Stantec		MR CAMP PENDERGINIA DEPART					Section/Te	ovenshin/Dangar		NI/A		
	Applicant: VIK		GINIA BE		AKT AFFAIR	(2)		ownship/Range: LRR or MLRA):		N/A T		
Cit	State:		VIRGINIA				Subregion (E	Site Latitude:		36.81643	81°	
Inves	stigator(s):]	B. ASHLE	Y				Site Longitude:		-75.9784	.9°	
	Date:		10/28/201	/28/2017				Iap Unit Name:	DUC	KSTON FI	NE SAND	
Summary of Findings:				UPLAND NORTHEAST OF				111				
	ic Vegetation is Present:	X		UII	Normal Circ			NWI Classificat	ion:	N/A		
	Hydric Soils are Present:				arameters (see	Remarks):		Local Re		NONE	Ĭ.	_
Wetlar	nd Hydrology is Present:		Probl	lematic P	arameters (see	Remarks):		Landfo	orm:	FLAT		
	ea is within a Wetland:		Atypical (Climate/F	Iydrology (see	Remarks):		Slope	e %:	0-1		
Hydrology Parameter:												
	Prii	mary Indicators:							lecondary Indic l Cracks (B6)	ators:		
Surface Water (A1)		Water Stained Leav	res (B9)						egetated Concav	e Surface (B8)	
High Water Table (A2)		Aquatic Fauna (B1						· ·	atterns (B10)			
Saturation (A3)	<u> </u>	Marl Deposits (B1:	5)					Moss Trim	Lines (B16)			
Water Marks (B1)		Hydrogen Sulfide (Water Table (C2)		
Sediment Deposits (B2		Oxidized Rhizosph			(C3)				urrows (C8)	1.7	G0)	
Drift Deposits (B3) Algal Mat or Crust (B4	<u> </u>	Presence of Reduce Recent Iron Reduct			C6)				Visible on Aeria Stressed Plants		C9)	
Iron Deposits (B5)	· —	Thin Muck Surface		u bons (C0)				c Position (D2)	(D1)		
Inundation Visible on A	Aerial Imagery (B7)	Other	(/						juitard (D3)			
		-							al Test (D5)			
			-		******		remen Moma	Sphagnum	Moss (D8)			
Water Depths (inches): Surface Water	r:		Rei	marks:	HYDKOLO(GY PARA!	METER NOT N	VIE I.				
Water Table												
Saturated soil												
Vegetation Parameter:												
Dominar	nt Species	Stratum	IND 9	%		Non-Do	minant Species	1	Stratum	IND	%	
	ır styraciflua			30			ros virginiana		Tree	FAC	5	
	serotina ıs rubra			25 15			ex opaca era japonica		Shrub Herbaceous	FAC	5	
	ıs rubra ır styraciflua			10			rotundifolia		Vine	FACU FAC	5 5	
	serotina	Sapling F	ACU 1	10								
	ıs rubra cerifera			5 30								
	ır styraciflua			10								
	undifolia			15								
	glauca			10								
	undifolia			25 10								
Smuax	glauca	vine	FAC 1	10								
% Dominan	t species FAC or wetter:	67%					Dr	evalence Index:	3.3			
	ATOR STATUS ACCORDING		TLAND PLAN	T LIST				using all species pre				
Rapid Test for Hydrophy	tic Vegetation:		Rei	marks:	VEGETATI	ON PARA	METER MET.					
	nce Test >50%: X	_										
	Index is ≤ 3.0:	-										
Problematic Hydrophy	tic Vegetation:	-										
Soil Parameter:												
	N	Matrix				Redox Fea	tures					
Depth (inches)	Color (Mois			Color	(Moist)	%	Type	Loc		Textur		
0-6	2.5Y 3/2	10								FINE SAL		
6-20	2.5Y 4/4	10	7.0							FINE SAI	ND.	
												
Hydric Soil Indicators:												
Histosol (A1)		rairie Redox (A16)			Redox Dark S			In	dicators for Pro	oblematic H	ydric Soils	
Histic Epipedon (A2) Black Histic (A3)		Iucky Mineral (S1)			Depleted Dar		· (/)		1 3 6 - 1	(40)		
Hydrogen Sulfide (A4)		leyed Matrix (S4) edox (S5)			Redox Depre Marl (F10)	ssions (F8)		-	1cm Muck 2cm Muck			
Stratified Layers (A5)		Matrix (S6)			Depleted Och	ric (F11)		-	Reduced V			
Organic Bodies (A6)		rface (S7)			Iron-Mangan		(F12)	•		loodplain S	Soils (F19)	
5cm Mucky Mineral (A		e Below Surface (S	3)		Umbric Surfa					-	my Soils (F2	20)
Muck Presence (A8)		rk Surface (S9)			Delta Ochric					Material (7		
1 cm Muck (A9)		Mucky Mineral (F1)			Reduced Ver		. (710)			ow Dark Su	rface (TF12))
Depleted Below Dark S		Gleyed Matrix (F2)			Piedmont Flo	•			Other			
Thick Dark Surface (A	12) Depleted	l Matrix (F3)			Anomalous B	rigni Loam	y 50118 (F2U)					
Restrictive Layer (If Ol	bserved)		Rei	marks:	SOIL PARA	METER N						
Restrictive Layer (If Ob Type Depth (inches)	e:		Rei	marks:	SOIL PARA	METER N						

Project: 2017 SMR CAMP PENDLETON WETLAND DELINEATION



		GINIA D			TARY AFFAIRS			ownship/Range:		N/A	
City	//County:		VIRGINIA VIRG				Subregion (L	RR or MLRA):			10
Invest			D 101				-	Site Latitude: Site Longitude:		-75.97849	
nivesi	Date:		10/27/				-	Iap Unit Name:		CKSTON FIN	
			10/2//	2017				rup contraine.			BUILD
Summary of Findings:					WETLAND SOU	JTH OF	FLAG 'KPT-11	!.			
	Vegetation is Present:	X			Normal Circui			NWI Classifica		N/A	
	ydric Soils are Present:	X		Disturbed	l Parameters (see F	Remarks):		Local Re		CONCAV	E
	d Hydrology is Present:	X			Parameters (see F			Landf		FLAT 0-1	
Hydrology Parameter:	a is within a Wetland:	Α	Atypi	cai Ciimate	e/Hydrology (see F	temarks):		Slop	e %:	0-1	
Tryurology Farameter.	Prin	ary Indica	ators:					,	Secondary Indic	ators:	
	27,00	in y mine							il Cracks (B6)		
Surface Water (A1)		Water Stai	ned Leaves (B9)				Sparsely V	egetated Conca	ve Surface (B	(8)
High Water Table (A2)		-	una (B13)					Drainage F	atterns (B10)		
X Saturation (A3)		Marl Depo	. ,						Lines (B16)		
Water Marks (B1)			Sulfide Odor (C		. (62)				n Water Table (C2)	
Sediment Deposits (B2) Drift Deposits (B3)			Rhizospheres on f Reduced Iron	-	ots (C3)				urrows (C8) Visible on Aeri	ol Imagary (C	'0)
Algal Mat or Crust (B4)			n Reduction in		(C6)				Stressed Plants		·2)
Iron Deposits (B5)			Surface (C7)		(==)				ic Position (D2)		
Inundation Visible on A		Other						Shallow A	quitard (D3)		
								X FAC-Neut	. ,		
				1				Sphagnum	Moss (D8)		
Water Depths (inches):				Remarks:	HYDROLOG	Y PARA	METER MET.				
Surface Water: Water Table:											
Saturated soil:											
Vegetation Parameter:	10			I							
Dominan		Stratu		%			minant Species		Stratum	IND	%
Liquidambar Nyssa sy		Tree Tree	FAC FAC	35 20			er rubrum rcus phellos		Tree Shrub	FAC FACW	10 5
Nyssa sy	lvatica	Sapling		20		Jun	cus effusus		Herbaceous	OBL	10
Liquidambar		Sapling		10	Os	smundasti	rum cinnamomei	um	Herbaceous	FACW	5
Pinus Vaccinium c		Sapling Shrub		10 15							
Quercus		Shrub		10							
Woodwardi		Herbace		40							
Smilax roi	fundifolia	Vine	FAC	10							
							_				
	species FAC or wetter:	89%	ONLY WEST IND	DY A NUMBER FOR				evalence Index:		-	
Rapid Test for Hydrophyt	ic Vagatation:	O 2016 NA 11	ONAL WEILAND	Remarks:	VECETATIO	N DADA	METER MET.	using all species pro	esent.		
1 , 1 ,	ce Test >50%: X			Kemarks.	VEGETATIO	HIAKA	WIETER WIET.				
	Index is < 3.0: X										
Problematic Hydrophyt					UNID	ENTIFIE	ED DOMINANT	SPECIES OF C	CAREX (20%) F	PRESENT.	
Soil Parameter:											
		atrix				edox Fea					
Depth (inches)	Color (Moist)	%	Colo	or (Moist)	%	Type	Loc	***	Texture	
0-4 4-15	10YR 2/1 10YR 4/2		100 90	7.5	5YR 4/6	10	С	M	FI	NE SANDY I SANDY LO.	
15-20	2.5Y 3/2		85		5YR 4/6	15	C	M	FI	NE SANDY I	
13-20	2.31 3/2		65	7.0	31K 4/0	13		141	11	INE SAIND I	LOAM
Hydric Soil Indicators:	l .			1	l.		l .				
Histosol (A1)	Coast Pra	irie Redox	(A16)		Redox Dark Su	rface (F6)	I	ndicators for Pr	oblematic Hy	dric Soils
Histic Epipedon (A2)	Sandy M	ucky Mine	ral (S1)		Depleted Dark	Surface (F7)				
Black Histic (A3)	Sandy Gl	eyed Matr	ix (S4)		Redox Depress	ions (F8)			1cm Muck		
Hydrogen Sulfide (A4)	Sandy Re			_	Marl (F10)				2cm Muck		
Stratified Layers (A5)		Matrix (S6)	_	Depleted Ochri		-			/ertic (F18)	
Organic Bodies (A6)	Dark Surf		(CO)	_	Iron-Manganes		(F12)			Floodplain So	
5cm Mucky Mineral (A'			irface (S8)	_	Umbric Surface					s Bright Loan t Material (TF	ny Soils (F20)
Muck Presence (A8) 1 cm Muck (A9)		k Surface (lucky Mine		_	Delta Ochric (F Reduced Vertic					t Materiai (11 low Dark Surf	
Depleted Below Dark S		leyed Mat		_	Piedmont Floor		ils (F19)		Other	Dur Dull	(1112)
Thick Dark Surface (A1		•			Anomalous Bri	-					
		-									
Restrictive Layer (If Ob.				Remarks:	SOIL PARAM	IETER N	ИЕТ.				
Type:			-								
Depth (inches):											



DEPARTMENT OF THE ARMY

US ARMY CORPS OF ENGINEERS
NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1011

June 27, 2018

PRELIMINARY JURISDICTIONAL DETERMINATION

Eastern Virginia Regulatory Section NAO-2018-0436 (Lake Christine / Atlantic Ocean)

LTC Timothy Pillion, Garrison Commander Camp Pendleton State Military Reserve 203 Red Horse Drive Virginia Beach, Virginia 23451

Dear LTC Pillion:

This letter is in regard to your request for a preliminary jurisdictional determination for waters of the U.S. (including wetlands) on property known as Camp Pendleton, located on a 332.01 acre parcel in Virginia Beach, Virginia.

The map entitled "Delineation Map", by Stantec dated revised on 2018-06-15 provides the location(s) of waters and/or wetlands on the property listed above. The basis for this delineation includes application of the Corps' 1987 Wetland Delineation Manual, the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region,* and the positive indicators of wetland hydrology, hydric soils, hydrophytic vegetation and the presence of an ordinary high water mark. This letter is not confirming the Cowardin classifications of these aquatic resources.

Discharges of dredged or fill material, including those associated with mechanized landclearing, into waters and/or wetlands on this site may require a Department of the Army permit and authorization by state and local authorities including a Virginia Water Protection Permit from the Virginia Department of Environmental Quality (DEQ), a permit from the Virginia Marine Resources Commission (VMRC) and/or a permit from your local wetlands board. This letter is a confirmation of the Corps preliminary jurisdiction for the waters and/or wetlands on the subject property and does not authorize any work in these areas. Please obtain all required permits before starting work in the delineated waters/wetland areas.

This is a preliminary jurisdictional determination and is therefore not a legally binding determination regarding whether Corps jurisdiction applies to the waters or wetlands in question. Accordingly, you may either consent to jurisdiction as set out in this preliminary jurisdictional determination and the attachments hereto if you agree with the determination, or you may request and obtain an approved jurisdictional determination. This preliminary jurisdictional determination and associated wetland delineation map may be submitted with a permit application.

Enclosed is a copy of the "Preliminary Jurisdictional Determination Form". Please review the document, sign, and return one copy to me either via email (brian.c.denson@usace.army.mil) or via standard mail to US Army Corps of Engineers, Regulatory Office, and ATTN: Brian Denson, 803 Front Street Norfolk, Virginia 23510 within 30 days of receipt and keep one for your records. This delineation of waters and/or wetlands can be relied upon for no more than five years from the date of this letter. New information may warrant revision.

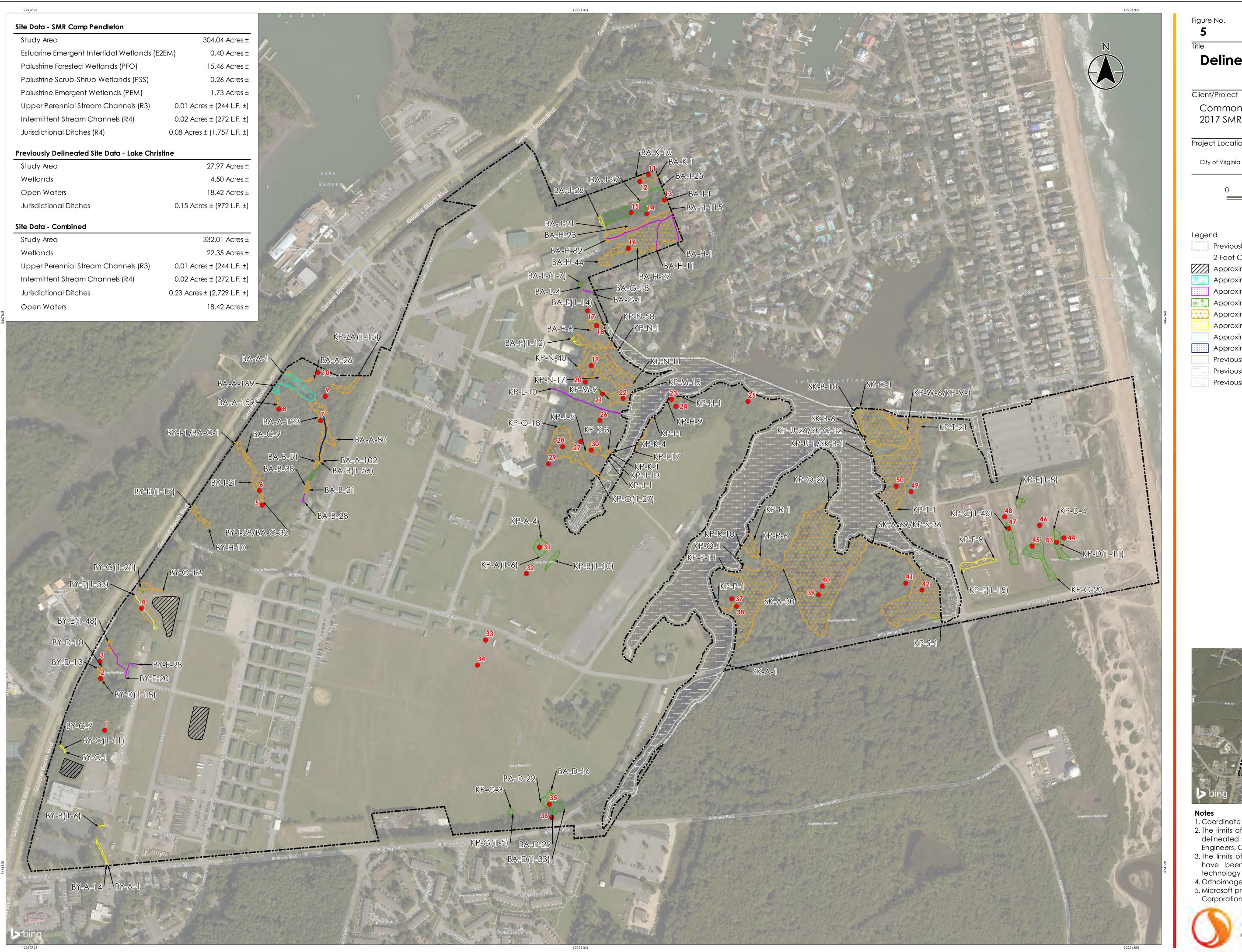
If you have any questions, please contact me, either via telephone at (757) 201-7792 or via email at brian.c.denson@usace.army.mil.

Sincerely,

Brian Denson Project Manager

Eastern Virginia Regulatory Section

Enclosure(s): Referenced figures, Supplemental Information, Preliminary Jurisdictional Determination Form



Disclaimer: Stantec assumes no responsibility for data supplied in electronic format. The recipient accepts full responsibility for verifying the accuracy and completeness of the data. The recipient releases Stantec, its officers, employees, consultants and agents, from any and all claims arising in any way from the content or provision of the data.

Figure No.

Delineation Map

Map Date: 2018-03-05 Revised Date: 2018-06-15

Commonwealth of Virginia 2017 SMR Camp Pendleton Wetland Delineation

Project Location 203400975 Prepared by MGS on 2017-12-11 Technical Review by TPS on 2018-01-05 Independent Review by KHP on 2018-01-05 City of Virginia Beach, VA

> 1,000 1:3,000 (At original document size of 24 x 36)

Previously Delineated Study Area 2-Foot Contour

Approximate Stormwater Facility

Approximate Estuarine Emergent Intertidal Wetland Limits (E2EM)

Approximate Jurisdictional Ditch Limits

Approximate Palustrine Emergent Wetland Limits (PEM)

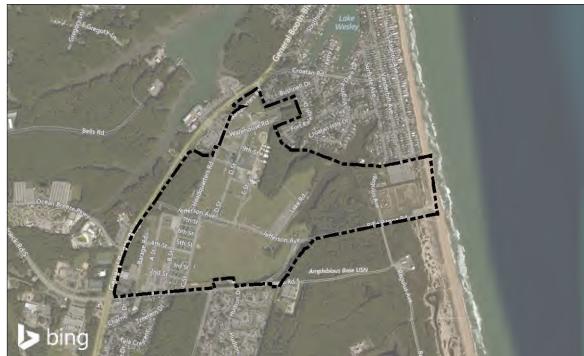
Approximate Palustrine Forested Wetland Limits (PFO) Approximate Palustrine Scrub-Shrub Wetland Limits (PSS)

Approximate Upper Perennial Stream Channel Limits (R3)

Approximate Intermittent Stream Channel Limits (R4) Previously Delineated Jurisdictional Ditch

Previously Delineated Open Water

Previously Delineated Wetland Limits



- 1. Coordinate System: NAD 1983 StatePlane Virginia South FIPS 4502 Feet 2. The limits of waters of the U.S., including wetlands within the previously delineated study area, have been confirmed by the U.S. Army Corps of Engineers, Confirmation #NAO-2013-1616.
- 3. The limits of waters of the U.S., including wetlands, shown on this map have been field located by means of sub-meter capable GPS technology and are for planning purposes only.
- 4. Orthoimagery © Bing Maps 5. Microsoft product screen shot(s) reprinted with permission from Microsoft



Page 01 of 01

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

BACKGROUND INFORMATION:

A.	REPORT COMPLETION	DATE FOR PRELIMINARY JURISDICTIONAL
	DETERMINATION (JD):	Wednesday, June 27, 2018

B. NAME AND ADDRESS OF PERSON REQUESTING PRELIMINARY JD:

LTC Timothy Pillion, Garrison Commander Camp Pendleton State Military Reserve 203 Red Horse Drive Virginia Beach, Virginia 23451

C. DISTRICT OFFICE: Norfolk District (CENAO-REG)

FILE NAME: Camp Pendleton JD FILE NUMBER: NAO-2018-0436

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

(USE THE ATTACHED TABLE TO DOCUMENT MULTIPLE WATERBODIES AT DIFFERENT SITES)

State: VIRGINIA County/parish/borough: City: Virginia Beach

Center coordinates of site (lat/long in degree decimal format):

Latitude: 36.816431 ° N Longitude: -75.97849 ° W

Universal Transverse Mercator: WGS 84

Name of nearest waterbody: Lake Christine/Atlantic Ocean

Identify (estimate) amount of waters in the review area:

Non-wetland waters: 3245 linear feet; width (ft); and/or 18.42 acres

Cowardin Class: 3245 If of R3, R4, and Ditches with OHW. 18.42 ac OW

Stream Flow: Perrenial and Intermittent and Open Waters

Wetlands: 22.35 acres

Cowardin Class:

Name of any water bodies on the site that have been identified as Section 10 waters:

Tidal:

Non-Tidal:

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

Office (Desk) Determination. Date:

Field Determination. Date(s): 5/25/2018

- 1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.
- 2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable.
- 3. This preliminary JD finds that there "may be" waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA:

Data reviewed for preliminary JD (check all that apply) - checked items should be included in case file and, where checked and requested, appropriately reference sources below.

☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:

Date	Date
2018-06-25	<u> (e/27/18</u>
Signature Regulatory Project Manager (REQUIRED)	Signature of person requesting Preliminary JD (REQUIRED, unless obtaining the signature is impracticable)
671 1 Date: 2018,06,25 16:20:14 -04'00'	Signature of porcen leguesting
AN.C.1168/99 ou=DoD, ==PMI ou 4886 cn=DENSCHARIAN C 11/00 19/67	((// //X2)
DENSON.BRI Digitally signed by DENSON.BRIAN.C.1168799671 DN: c=US. E-U GBYWNINIENT	LA IN
determinations.	/
IMPORTANT NOTE: The information reverified by the Corps and should not be	ecorded on this form has not necessarily been
Other information (please specify)	
_	of response letter: NAO-2013-1616 / September 23, 2013
✓ Previous determination(s): ———————————————————————————————————	from and latter NIAO 2012 1616 / 6
or 🗵 Other (Name &	Date). LIDAK
	Date): Google Earth, VGIN, CIR, Various Years
☐ 100-year Floodplain Elevation:	(National Geodetic Vertical Datum of 1929)
☐ FEMA/FIRM maps:	(National Coad-ti- Vastical Date: £ 4000)
State/Local wetland inventory map	υ(>).
	s). Cite name:
Citation:	talion obitioo obii oditoy.
	·
✓ U.S. Geological Survey map(s). C	
☑ USGS 8 and 12 digit HUC map	ne.
USGS NHD data.	o / tildo.
☑ U.S. Geological Survey Hydrologic	c Atlas:
☐ Corps navigable waters' study:	.
☐ Data sheets prepared by the Corp	•
Office does not concur with dat	·
	•
X Data sheets prepared/submitted by	y or on behalf of the applicant/consultant.



US ARMY CORPS OF ENGINEERS NORFOLK DISTRICT

FORT NORFOLK 803 FRONT STREET NORFOLK VA 23510-1011

June 27, 2018

Supplemental Preapplication Information

Project Number: NAO-2018-0436

Applicant: LTC Timothy Pillion, Garrison Commander

Camp Pendleton State Military Reserve

Project Location: Camp Pendleton, Virginia Beach, VA.

1.	A search of the Virginia Department of Historic Resources data revealed the following:
	☐ No known historic properties are located on the property.
	☐ The following known architectural resources are located on the property:
	☐ The following known archaeological resources are located on the property:
	☐ The following known historic resources are located in the vicinity of the property (potential for effects to these resources from future development):

- NOTE:
 - The information above is for planning purposes only. In most cases, the property has not been surveyed for historic resources. Undiscovered historic resources may be located on the subject property or adjacent properties and this supplemental information is not intended to satisfy the Corps' requirements under Section 106 of the National Historic Preservation Act (NHPA).
 - 2) Prospective permittees should be aware that Section 110k of the NHPA (16 U.S.C. 470h-2(k)) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant.

VDHR Archaeological Resources

DHR ID	Site Name	Site Category	Time Period	NR Eligible	Restricted
44VB0387	-	Military/Defense	World War I to World War II (1917 - 1945), The New Dominion (1946 - 1991)	-	-
44VB0388	-	Military/Defense	World War I to World War II (1917 - 1945), The New Dominion (1946 - 1991)	-	-
44VB0389	-	Industry/Processing/Extraction, Military/Defense	Pre-Contact, World War I to World War II (1917 - 1945),	-	-

			The New Dominion (1946 - 1991)		
44VB0391	-	Domestic	Reconstruction and Growth (1866 - 1916)	-	-
44VB0390	-	Military/Defense	World War I to World War II (1917 - 1945), The New Dominion (1946 - 1991)	-	-
44VB0386	-	Military/Defense	World War I to World War II (1917 - 1945), The New Dominion (1946 - 1991)	-	-
44VB0385	-	Military/Defense	World War I to World War II (1917 - 1945), The New Dominion (1946 - 1991)	-	-
44VB0392	-	Domestic	Antebellum Period (1830 - 1860), Civil War (1861 - 1865), Reconstruction and Growth (1866 - 1916)	-	-
44VB0343	Camp Pendleton ANG Site C-1	Military/Defense	Early National Period (1790 - 1829), Antebellum Period (1830 - 1860), Civil War (1861 - 1865), Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945), The New Dominion (1946 - 1991), Post Cold War (1992 - Present)	DHR Staff: Not Eligible	Restricted: No release
44VB0393	-	Domestic	Colony to Nation (1751 - 1789), Early National Period (1790 - 1829), Antebellum Period (1830 - 1860), Civil War (1861 - 1865),	-	-

		Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945), The New Dominion (1946 - 1991)
44VB0394	Industry/Processing/Extraction, Military/Defense	Pre-Contact, Middle Woodland (300 - 999 C.E), Late Woodland (1000 - 1606), World War I to World War II (1917 - 1945), The New Dominion (1946 - 1991)
44VB0395	Industry/Processing/Extraction, Military/Defense	Pre-Contact, Antebellum Period (1830 - 1860), Civil War (1861 - 1865), Reconstruction and Growth (1866 1916), World War I to World War II (1917 - 1945), The New Dominion (1946 - 1991)
44VB0396	- Military/Defense	World War I to World War II (1917 - 1945), The New Dominion (1946 - 1991)

1 - 13

3) VDHR Architectural Resources

DHR ID	Address	Restricted	Property Names
134- 0413- 0029	Jefferson Avenue	-	Building 84 - Camp Pendleton SMR (Current), Building T-84 - Camp Pendleton SMR (Historic)
134- 0413- 0092	Jefferson Avenue	-	Building 414 - Camp Pendleton SMR (Current), Building T-414 - Camp Pendleton SMR (Historic)

134- 0413- 0072	C Street	-	Building 349 - Camp Pendleton SMR (Current), Building T-349 - Camp Pendleton SMR (Historic)
134- 0413- 0071	6 Half Street, B Street, C Street	-	Building 348 - Camp Pendleton SMR (Current), Building T-348 - Camp Pendleton SMR (Historic)
134- 0413- 0030	E Street	-	Building 85 - Camp Pendleton SMR (Current), Building T-85 - Camp Pendleton SMR (Historic)
134- 0413- 0091	Jefferson Avenue	-	Building 413 - Camp Pendleton SMR (Current), Building T-413 - Camp Pendleton SMR (Historic)
134- 0413- 0073	7th Street, C Street	-	Building 350 - Camp Pendleton SMR (Current), Building T-350 - Camp Pendleton SMR (Historic)
134- 0413- 0090	Jefferson Avenue	-	Building 412 - Camp Pendleton SMR (Current), Building T-412 - Camp Pendleton SMR (Historic)
134- 0413- 0076	7th Street, C Street	-	Building 354 - Camp Pendleton SMR (Current), Building T-354 - Camp Pendleton SMR (Historic)
134- 0413- 0102	C Street, Jefferson Avenue	-	Building 434 - Camp Pendleton SMR (Current), Building T- 434 - Camp Pendleton SMR (Historic)
134- 0413- 0010	D Street, Jefferson Avenue	-	Building 57 - Camp Pendleton SMR (Current), Building T-57 - Camp Pendleton SMR (Historic)
134- 0413- 0075	7th Street, B Street, C Street, Jefferson Avenue	-	Building 353 - Camp Pendleton SMR (Current), Building T-353 - Camp Pendleton SMR (Historic)
134- 0413- 0093	D Street, Jefferson Avenue	-	Building 416 - Camp Pendleton SMR (Current), Building T-416 - Camp Pendleton SMR (Historic)
134- 0413- 0077	C Street, Jefferson Avenue	-	Building 355 - Camp Pendleton SMR (Current), Building T-355 - Camp Pendleton SMR (Historic)

134- 0413- 0028	E Street, Jefferson Avenue	-	Building 83 - Camp Pendleton SMR (Current)
134- 0413- 0099	D Street, Jefferson Avenue	-	Building 427 - Camp Pendleton SMR (Current), Building T- 427 - Camp Pendleton SMR (Historic)
134- 0413- 0098	Jefferson Avenue	-	Building 426 - Camp Pendleton SMR (Current), Building T- 426 - Camp Pendleton SMR (Historic), Chapel (Historic/Current)
134- 0413- 0162	D Street, Headquarters Road	-	Field between Headquarters Road and D Street - Camp Pendleton SMR (Function/Location)
134- 0413- 0011	D Street	-	Building 59 - Camp Pendleton SMR (Current), Building T-59 - Camp Pendleton SMR (Historic)
134- 0413- 0027	8th Street, D Street, E Street, Jefferson Avenue	-	Building 82 - Camp Pendleton SMR (Current), Building T-82 - Camp Pendleton SMR (Historic)
134- 0413- 0012	D Street	-	Building 60 - Camp Pendleton SMR (Current), Building T-60 - Camp Pendleton SMR (Current)
134- 0413- 0088	Headquarters Road	-	Building 410 - Camp Pendleton SMR (Current), Building T-410 - Camp Pendleton SMR (Historic)
134- 0413- 0013	D Street	-	Building 61 - Camp Pendleton SMR (Current), Building T-61 - Camp Pendleton SMR (Current)
134- 0413- 0196	D Street	Unrestricted	Building 61 Shed - Camp Pendleton SMR (Current)
134- 0413- 0185	D Street	-	Building 61Shed - Camp Pendleton SMR (Current)
134- 0413- 0014	D Street	-	Building 62 - Camp Pendleton SMR (Current), Building T-62 - Camp Pendleton SMR (Current)

134- 0413- 0106	Headquarters Road	-	Building 448 - Camp Pendleton SMR (Current), Building T- 448 - Camp Pendleton SMR (Historic)
134- 0413- 0015	D Street	-	Building 63 - Camp Pendleton SMR (Current), Building T-63 - Camp Pendleton SMR (Historic)
134- 0413- 0016	D Street	-	Building 64/T-64 - Camp Pendleton SMR (Current)
134- 0413- 0005	Headquarters Road	-	Building 13 - Camp Pendleton SMR (Current), Building T-13 - Camp Pendleton SMR (Historic)
134- 0413- 0017	8th Street, D Street	-	Building 65 - Camp Pendleton SMR (Current), Building T-65 - Camp Pendleton SMR (Historic)
134- 0413- 0018	8th Street, D Street	-	Building 66 - Camp Pendleton SMR (Current), Building T-66 - Camp Pendleton SMR (Historic)
134- 0413- 0019	8th Street, D Street	-	Building 67 - Camp Pendleton SMR (Current), Building T-67 - Camp Pendleton SMR (Historic)
134- 0413- 0004	Headquarters Road	-	Building 8 - Camp Pendleton SMR (Current)
134- 0413- 0169	Red Horse Drive	-	Red Horse Memorial - Camp Pendleton SMR (Current)
134- 0413- 0190	8th Street, D Street	-	Buildings 204 - Camp Pendleton SMR (Current)
134- 0413- 0089	Headquarters Road	-	Building 411 - Camp Pendleton SMR (Current), Building T-411 - Camp Pendleton SMR (Historic)
134- 0413- 0020	South Birdneck Road	Unrestricted	Building 69 - Camp Pendleton SMR (Current)

134- 0413- 0021	South Birdneck Road	Unrestricted	Building 73 - Camp Pendleton SMR (Current)
134- 0413- 0191	D Street	-	Buildings 205 - Camp Pendleton SMR (Current)
134- 0413- 0022	South Birdneck Road	Unrestricted	Building 74 - Camp Pendleton SMR (Current)
134- 0413- 0133	8th Street, D Street	-	Buildings 203 - Camp Pendleton SMR (Current)
134- 0413- 0006	Headquarters Road	-	Building 18 - Camp Pendleton SMR (Current), Building T-18 - Camp Pendleton SMR (Historic)
134- 0413- 0023	South Birdneck Road	Unrestricted	Building 75 - Camp Pendleton SMR (Current)
134- 0413- 0024	South Birdneck Road	Unrestricted	Building 76 - Camp Pendleton SMR (Current)
134- 0413- 0025	South Birdneck Road	Unrestricted	Building 77 - Camp Pendleton SMR (Current)
134- 0413- 0003	Headquarters Road	-	Building 4 - Camp Pendleton SMR (Current)
134- 0413- 0186	Headquarters Road	-	Shed-Building 4 - Camp Pendleton SMR (Current)
134- 0413- 0085	South Birdneck Road	-	Building 407- Camp Pendleton SMR (Current)
134- 0413- 0087	South Birdneck Road	-	Building 409- Camp Pendleton SMR (Current)

134- 0413- 0086	South Birdneck Road	-	Building 408 - Camp Pendleton SMR (Current)
134- 0413- 0084	South Birdneck Road	-	Building 405 - Camp Pendleton SMR (Current)
134- 0413- 0083	South Birdneck Road	-	Building 404 - Camp Pendleton SMR (Current)
134- 0413- 0131	7th Street, B Street	-	Picnic Area (Descriptive), Site 120 - Camp Pendleton SMR (Current)
134- 0413- 0151	4th Street	-	Building 326 - Camp Pendleton SMR (Current), Building T-326 - Camp Pendleton SMR (Historic)
134- 0413- 0054	5 Half Street, B Street	-	Building 331 - Camp Pendleton SMR (Current), Building T-331 - Camp Pendleton SMR (Historic)
134- 0413- 0059	5 Half Street, B Street	-	Building 336 - Camp Pendleton SMR (Current), Building T-336 - Camp Pendleton SMR (Historic)
134- 0413- 0064	6 Half Street, B Street	-	Building 341 - Camp Pendleton SMR (Current), Building T-341 - Camp Pendleton SMR (Historic)
134- 0413- 0069	6 Half Street, B Street	-	Building 346 - Camp Pendleton SMR (Current), Building T-346 - Camp Pendleton SMR (Historic)
134- 0413- 0050	4th Street, B Street, C Street	-	Building 327 - Camp Pendleton SMR (Current), Building T-327 - Camp Pendleton SMR (Historic)
134- 0413- 0055	5 Half Street, B Street, C Street	-	Building 332 - Camp Pendleton SMR (Current), Building T-332 - Camp Pendleton SMR (Historic)
134- 0413- 0060	5 Half Street, B Street, C Street	-	Building 337 - Camp Pendleton SMR (Current), Building T-337 - Camp Pendleton SMR (Historic)

134- 0413- 0065	6 Half Street, B Street, C Street	-	Building 342 - Camp Pendleton SMR (Current), Building T-342 - Camp Pendleton SMR (Historic)
134- 0413- 0070	6 Half Street	-	Building 347 - Camp Pendleton SMR (Current), Building T-347 - Camp Pendleton SMR (Historic)
134- 0413- 0074	B Street, Jefferson Avenue	-	Building 352 - Camp Pendleton SMR (Current), Building T-352 - Camp Pendleton SMR (Historic)
134- 0413- 0051	4th Street, B Street, C Street	-	Building 328 - Camp Pendleton SMR (Current), Building T-328 - Camp Pendleton SMR (Historic)
134- 0413- 0056	5 Half Street, B Street, C Street	-	Building 333 - Camp Pendleton SMR (Current), Building T-333 - Camp Pendleton SMR (Historic)
134- 0413- 0187	Headquarters Road	-	Tank (Current)
134- 0413- 0061	5 Half Street, B Street, C Street	-	Building 338 - Camp Pendleton SMR (Current), Building T-338 - Camp Pendleton SMR (Historic)
134- 0413- 0066	6 Half Street, B Street, C Street	-	Building 343 - Camp Pendleton SMR (Current), Building T-343 - Camp Pendleton SMR (Historic)
134- 0413- 0197	Headquarters Road	-	Map Kiosk (Descriptive), Structure 410a (Current)
134- 0413- 0053	C Street	-	Building 330 - Camp Pendleton SMR (Current), Building T-330 - Camp Pendleton SMR (Historic)
134- 0413- 0057	C Street	-	Building 334 - Camp Pendleton SMR (Current), Building T-334 - Camp Pendleton SMR (Historic)
134- 0413- 0058	C Street	-	Building 335 - Camp Pendleton SMR (Current), Building T-335 - Camp Pendleton SMR (Historic)

134- 0413- 0062	C Street	-	Building 339 - Camp Pendleton SMR (Current), Building T-339 - Camp Pendleton SMR (Historic)
134- 0413- 0063	C Street	-	Building 340 - Camp Pendleton SMR (Current), Building T-340 - Camp Pendleton SMR (Historic)
134- 0413- 0067	C Street	-	Building 344 - Camp Pendleton SMR (Current), Building T-344 - Camp Pendleton SMR (Historic)
134- 0413- 0068	C Street	-	Building 345 - Camp Pendleton SMR (Current), Building T-345 - Camp Pendleton SMR (Historic)
134- 0413- 0166	Jefferson Avenue	-	Mdular House 2- Camp Pendleton SMR (Current)
134- 0413- 0112	South Birdneck Road	Unrestricted	Building 86 - Camp Pendleton SMR (Current)
134- 0413- 0165	Jefferson Avenue	-	Modular Building 1 Camp Pendleton SMR (Current)
134- 0413- 0113	South Birdneck Road	Unrestricted	Building 87 - Camp Pendleton SMR (Current)
134- 0413- 0103	South Birdneck Road	Unrestricted	Building 435 - Camp Pendleton SMR (Historic)
134- 0413- 0031	Jefferson Avenue	-	Building 5 - Camp Pendleton SMR (Historic), Building 88 - Camp Pendleton SMR (Current), Building T-88 - Camp Pendleton SMR (Historic)
134- 0413- 0201	E Street, Jefferson Avenue	-	Building 101 - Camp Pendleton SMR (Current)
134- 0413- 0032	Jefferson Avenue	-	Building 4 - Camp Pendleton SMR (Historic), Building 89 - Camp Pendleton SMR (Current), Building T-89 - Camp Pendleton SMR (Historic)

134- 0413- 0205	Jefferson Avenue	-	Shed, Building T-89 - Camp Pendleton SMR (Current)
134- 0413- 0203	E Street, Jefferson Avenue	-	Building 100 - Camp Pendleton SMR (Historic/Current)
134- 0413- 0114	Lake Road, South Birdneck Road	-	Boathouse Associated with Building 94 (Descriptive), Building 91 - Camp Pendleton SMR (Current)
134- 0413- 0115	Lake Road and Jefferson Avenue	-	Dock Associated with Building 94 (Descriptive), Structure 91a - Camp Pendleton SMR (Current)
134- 0413- 0036	Jefferson Avenue, Lake Road	-	Adjutant General Cottage (Historic), Building 94 - Camp Pendleton SMR (Current), Post Superintendent Residence (Historic)
134- 0413- 0034	Jefferson Avenue	-	Building 33 - Camp Pendleton SMR (Historic), Building 93 - Camp Pendleton SMR (Historic), Building 92 - Camp Pendleton SMR (Current)
134- 0413- 0138	B Street	-	Building 230 - Camp Pendleton SMR (Current)
134- 0413- 0042	1st Street, B Street, C Street, South Birdneck Road	-	Building 233 - Camp Pendleton SMR (Current), Building T-233 - Camp Pendleton SMR (Historic)
134- 0413- 0041	1st Street, B Street, South Birdneck Road	-	Building 232 - Camp Pendleton SMR (Current), Building T-232 - Camp Pendleton SMR (Historic)
134- 0413- 0040	1st Street, B Street, South Birdneck Road	-	Building 231 - Camp Pendleton SMR (Current), Building T-231 - Camp Pendleton SMR (Historic)
134- 0413- 0105	South Birdneck Road	-	Building 442 - Camp Pendleton SMR (Current)
134- 0413- 0163	C Street, Jefferson Avenue, Rifle Range Road	-	Drill Field at Jefferson Avenue - Camp Pendleton SMR (Function/Location)

134- 0413- 0137	South Birdneck Road	Unrestricted	Building 229 - Camp Pendleton SMR (Current), Building 442 - Camp Pendleton SMR (Historic)
134- 0413- 0177	C Street	-	Gate/Guard House Camp Pendleton SMR (Current)
134- 0413- 0142	2nd Street	-	Building 238 - Camp Pendleton SMR (Current), Building T-238 - Camp Pendleton SMR (Historic)
134- 0413- 0139	2nd Street	-	Building 231A - Camp Pendleton SMR (Current)
134- 0413- 0150	Seatack Road	-	Cantonment Road 265 - Camp Pendleton SMR (Current), Seatack Road (Historic/Current)
134- 0413- 0141	2nd Street	-	Building 237 - Camp Pendleton SMR (Current), Building T-237 - Camp Pendleton SMR (Historic)
134- 0413- 0140	1st Street, B Street	-	Building 236 - Camp Pendleton SMR (Current), Building T-236 - Camp Pendleton SMR (Historic)
134- 0413- 0045	C Street	-	Building 243 - Camp Pendleton SMR (Current), Building T-243 - Camp Pendleton SMR (Historic)
134- 0413- 0044	B Street	-	Building 242 - Camp Pendleton SMR (Current), Building T-242 - Camp Pendleton SMR (Historic)
134- 0413- 0184	1st Street	-	Gazebo-Camp Pendleton SMR (Function/Location)
134- 0413- 0043	3rd Street, B Street	-	Building 241 - Camp Pendleton SMR (Current), Building T-241 - Camp Pendleton SMR (Historic)
134- 0413- 0144	B Street, C Street	-	Building 248 - Camp Pendleton SMR (Current), Building T-248 - Camp Pendleton SMR (Historic)

134- 0413- 0143	3rd Street, B Street, C Street	-	Building 247 - Camp Pendleton SMR (Current), Building T-247 - Camp Pendleton SMR (Historic)
134- 0413- 0183	1st Street	-	Gazebo-Camp Pendleton SMR (Function/Location)
134- 0413- 0046	3rd Street, B Street	-	Building 246 - Camp Pendleton SMR (Current), Building T-246 - Camp Pendleton SMR (Historic)
134- 0413- 0199	C Street	-	Cadets Memorial Garden- Camp Pendleton SMR (Current)
134- 0413- 0146	B Street, C Street	-	Building 253 - Camp Pendleton SMR (Current), Building T-253 - Camp Pendleton SMR (Historic)
134- 0413- 0145	B Street, C Street	-	Building 252 - Camp Pendleton SMR (Current), Building T-252 - Camp Pendleton SMR (Historic)
134- 0413- 0047	3rd Street, South Birdneck Road	-	Building 251- Camp Pendleton SMR (Current), Building T-251 - Camp Pendleton SMR (Historic)
134- 0413- 0164	1st Street, 7th Street, A Street, B Street	-	Field between A and B Streets - Camp Pendleton SMR (Function/Location), Regimental Camp Area #2 (Descriptive)
134- 0413- 0111	Jefferson Avenue, South Birdneck Road	-	Structure 80 - Camp Pendleton SMR (Current), Structure T-80 - Camp Pendleton SMR (Historic)
134- 0413- 0033	Lake Road	-	Building 90 - Camp Pendleton SMR (Descriptive), Commandant's House (Historic), Governor's Cottage (Historic/Current)
134- 0413- 0009	C Street	-	Building 51 - Camp Pendleton SMR (Current)
134- 0413- 0007	B Street	-	Building 34 - Camp Pendleton SMR (Current)

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134- 0413- 0198	Lake Road	-	Building 90 Shed - Camp Pendleton SMR (Current), Governor's Cottage Shed (Descriptive)
134- 0413- 0008	B Street	-	Building 35 - Camp Pendleton SMR (Current)
134- 0413- 0204	B Street	-	Building 36 - Camp Pendleton SMR (Historic/Current), Camp Pendleton Laundry (Function/Location)
134- 0413- 0052	C Street	-	Building 329 - Camp Pendleton SMR (Current), Building T-329 - Camp Pendleton SMR (Historic)
134- 0413	501 General Booth Boulevard	Unrestricted	Camp Pendleton-National Guard Training Site (Historic), Camp Pendleton/State Military Reservation (Current Name), Camp Pendleton/State Military Reservation Historic District (NRHP Listing)
134- 0413- 0149	Jefferson Avenue	-	Cantonment Road 264 - Camp Pendleton SMR (Current), Jefferson Avenue (Historic/Current)
134- 0413- 0037	Lake Road	-	Building 99 - Camp Pendleton SMR (Current), Building T-95 - Camp Pendleton SMR (Historic)
134- 0413- 0130	Jefferson Avenue, Lake Road	-	Picnic Area (Descriptive), Site 119 - Camp Pendleton SMR (Current)
134- 0413- 0206	Lake Road	Dock 99A - Camp Pendleton (Function/Location)	
134- 0413- 0122	Lake Road	-	Building 110b - Camp Pendleton SMR (Current)
134- 0413- 0035	Birdneck Road	-	Bldg #32 State Military Reservation, Camp Pendleton (Historic), Bldg #92 State Military Reservation, Camp Pendleton (Historic), Horse Barn, Bldg #93 State Military Reservation, Camp Pendleton (Function/Location)

134- 0413- 0117	Lake Road and Jefferson Avenue	-	Building 94a - Camp Pendleton SMR (Current), Guest House #1 (Descriptive)		
134- 0413- 0123	Lake Road	-	Structure 110c - Camp Pendleton SMR (Current)		
134- 0413- 0121	Lake Road	-	Building 110a - Camp Pendleton SMR (Current)		
134- 0413- 0116	Lake Road and Jefferson Avenue	-	Building 94b - Camp Pendleton SMR (Current), Guest House #2 (Descriptive)		
134- 0413- 0188	Lake Road and Jefferson Avenue	-	Building 94c - Camp Pendleton SMR (Current)		
134- 0413- 0038	3- Lake Road -		Adj. General Residence (Current), Building 110 - Camp Pendleton SMR (Current), Building T-110 - Camp Pendleton SMR (Historic)		
134- 0413- 0124	Lake Road	-	Structure 110d - Camp Pendleton SMR (Current)		
134- 0413- 0189	Lake Road and Jefferson Avenue	-	Building 94d Shed - Camp Pendleton SMR (Current)		
134- 0413- 0160	General Booth Boulevard, Regulus Avenue, South Birdneck Road	-	Beachfront Range - Camp Pendleton SMR (Current)		
134- 0413- 0039	Regulus Avenue	-	Building 113 - Camp Pendleton SMR (Current), Building 99 - Camp Pendleton SMR (Historic)		
134- 0413- 0125	Regulus Road	-	Building 114 - Camp Pendleton SMR (Current)		
134- 0413- 0127	Regulus Road	-	Building 116 - Camp Pendleton SMR (Current)		

134- 0413- 0126	Regulus Road	-	Building 115 - Camp Pendleton SMR (Current)
134- 0413- 0218	Regulus Road	-	Building 114a - Camp Pendleton SMR (Current)
134- 0413- 0128	Regulus Road	-	Building 117 - Camp Pendleton SMR (Current)
134- 0413- 0132	Regulus Road	-	Structure 127 - Camp Pendleton SMR (Current)
134- 0413- 0129	Regulus Road	Unrestricted	Structure 118 - Camp Pendleton SMR (Current), Structure T-100 - Camp Pendleton SMR (Historic)
134- 0413- 0179	Regulus Road	-	Dog Agility Course- Camp Pendleton SMR (Current)
134- 0413- 0170	Rifle Range Road	-	Beach - Camp Pendleton SMR (Current)
134- 0413- 0168	Rifle Range Road	-	Observation Deck - Camp Pendleton SMR (Current)
134- 0413- 0167	501 General Booth Boulevard	-	Circulation System - Camp Pendleton SMR (Current)
134- 0413- 0155	Garage Road	Unrestricted	Building T-430 - Camp Pendleton SMR (Current)
134- 0413- 0156	Garage Road	Unrestricted	Camp Pendleton Water Tower (Descriptive), Structure 430c - Camp Pendleton SMR (Function/Location)
134- 0413- 0152	A Street	Unrestricted	Building 361 - Camp Pendleton SMR (Current), Building T-356 - Camp Pendleton SMR (Historic)
0128 134- 0413- 0132 134- 0413- 0129 134- 0413- 0179 134- 0413- 0168 134- 0413- 0167 134- 0413- 0155 134- 0413- 0156 134- 0413- 0156	Regulus Road Regulus Road Regulus Road Rifle Range Road Sol General Booth Boulevard Garage Road Garage Road	Unrestricted Unrestricted	Structure 127 - Camp Pendleton SMR (Current) Structure 118 - Camp Pendleton SMR (Current), Structure T-100 - Camp Pendleton SMR (Historic) Dog Agility Course- Camp Pendleton SMR (Current) Beach - Camp Pendleton SMR (Current) Observation Deck - Camp Pendleton SMR (Current) Circulation System - Camp Pendleton SMR (Current) Building T-430 - Camp Pendleton SMR (Current) Camp Pendleton Water Tower (Descriptive Structure 430c - Camp Pendleton SMR (Function/Location) Building 361 - Camp Pendleton SMR (Current), Building T-356 - Camp Pendleton

134- 0413- 0095	South Birdneck Road	Unrestricted	Building 418, Camp Pendleton SMR (Current)		
134- 0413- 0097	Warehouse Road	Unrestricted	Building 424 - Camp Pendleton SMR (Current), Building T-424 - Camp Pendleton SMR (Historic)		
134- 0413- 0161	Jefferson Avenue, Lake Road	-	Rifle Range, Jefferson Avenue and Lake Road - Camp Pendleton SMR (Function/Location)		
134- 0413- 0171	D Street	-	Building Foundation-Camp Pendleton SMR (Current)		
134- 0413- 0192	D Street	-	Buildings 206 - Camp Pendleton SMR (Current)		
134- 0413- 0134	D Street	-	Building 209 - Camp Pendleton SMR (Current)		
134- 0413- 0101	E Street	-	Building 432 - Camp Pendleton SMR (Current), Building T- 432 - Camp Pendleton SMR (Historic)		
134- 0413- 0026	South Birdneck Road	Unrestricted	Building 79 - Camp Pendleton SMR (Current)		
134- 0413- 0209	E Street	-	Building 432 Shed - Camp Pendleton SMR (Current), Building T- 432 Shed- Camp Pendleton SMR (Historic)		
134- 0413- 0118	South Birdneck Road	-	Building 95 - Camp Pendleton SMR (Current)		
134- 0413- 0119	E Street, Jefferson Avenue	-	Building 96 - Camp Pendleton SMR (Current)		
134- 0413- 0216	9th & D Streets	-	Building 212 - Camp Pendleton SMR (Current)		

134- 0413- 0120	E Street, Jefferson Avenue	-	Building 97 - Camp Pendleton SMR (Current)	
134- 0413- 0200	E Street, Jefferson Avenue	-	Building 98 - Camp Pendleton SMR (Current)	
134- 0413- 0215	9th & D Streets	-	Building 216 - Camp Pendleton SMR (Current)	
134- 0413- 0181	9th Street	-	Quonset Hut, Red Horse Complex - Camp Pendleton SMR (Current)	
134- 0413- 0136	9th Street	-	Building 211 - Camp Pendleton SMR (Current)	
134- 0413- 0202	E Street, Jefferson Avenue	-	Building 102 - Camp Pendleton SMR (Current)	
134- 0413- 0193	D Street -		Buildings 207 - Camp Pendleton SMR (Current)	
134- 0413- 0135	D Street	-	Building 210 - Camp Pendleton SMR (Current)	
134- 0413- 0182	9th Street	-	Quonset Hut, Red Horse Complex - Camp Pendleton SMR (Current)	
134- 0413- 0194	9th Street	-	Building 208 - Camp Pendleton SMR (Current)	
134- 0413- 0195	9th & D Streets	-	Building 214 - Camp Pendleton SMR (Current)	
134- 0413- 0100	Headquarters Road, Warehouse Road	-	Building 428 - Camp Pendleton SMR (Current), Building T- 428 - Camp Pendleton SMR (Historic)	

134- 0413- 0002	Headquarters Road, Warehouse Road	-	Building 3 - Camp Pendleton SMR (Current)		
134- 0413- 0001	Headquarters Road, Warehouse Road	-	Building 2 -Camp Pendleton SMR (Current)		
134- 0413- 0110	Headquarters Road, Warehouse Road	-	Building 1 - Camp Pendleton SMR (Current)		
134- 0413- 0174	Headquarters Road	-	Structure 423 - Camp Pendleton SMR (Current)		
134- 0413- 0096	Headquarters Road, Warehouse Road	-	Building 421 - Camp Pendleton SMR (Current), Building T-421 - Camp Pendleton SMR (Historic)		
134- 0413- 0104	Headquarters Road, Warehouse Road	-	Building 441 - Camp Pendleton SMR (Current), Building T- 441 - Camp Pendleton SMR (Historic)		
134- 0413- 0217	Headquarters Road	-	Building 217 - Camp Pendleton SMR (Current)		
134- 0413- 0154	South Birdneck Road	-	Building 422 - Camp Pendleton SMR (Current), Building T-422 - Camp Pendleton SMR (Historic)		
134- 0413- 0159	1096 South Birdneck Road	Unrestricted	Major General William Sands Armory (Current), Virginia Beach Armory (Current), Virginia Beach Readiness Center (Current)		
134- 0413- 0148	Garage Road	-	Building 261 - Camp Pendleton SMR (Current)		
134- 0413- 0048	Garage Road	Building 262 - Camp Pendleton SMR - (Current), Building T-262 - Camp Pen SMR (Historic)			
134- 0413- 0049	Garage Road, South Birdneck Road	-	Building 263 - Camp Pendleton SMR (Current), Building T-263 - Camp Pendleton SMR (Historic)		

Garage Road	-	Building 360 - Camp Pendleton SMR (Current), Building T-360 - Camp Pendleton SMR (Historic)	
Garage Road	-	Building Foundation and Flue-Camp Pendleton SMR (Descriptive)	
Garage Road	-	Building 362 - Camp Pendleton SMR (Current), Building T-362 - Camp Pendleton SMR (Historic)	
4th Street	-	Building 260D - Camp Pendleton SMR (Current)	
A Street, Garage Road	-	Building 260 - Camp Pendleton SMR (Current)	
A Street	-	Building 260 - Camp Pendleton SMR (Current)	
A Street	-	Building 260B-C (Function/Location)	
4th Street, Garage Road		Structure 361-Camp Pendleton SMR (Historic)	
A Street, South Birdneck Road	-	Building 403 - Camp Pendleton SMR (Current)	
4th Street	-	Building 360A - Camp Pendleton SMR (Current)	
A Street	-	Building 358 - Camp Pendleton SMR (Current), Building T-358 - Camp Pendleton SMR (Historic)	
A Street	-	Building 359 - Camp Pendleton SMR (Current), Building T-359 - Camp Pendleton SMR (Historic)	
	Garage Road Garage Road 4th Street A Street, Garage Road A Street 4th Street, Garage Road A Street, Garage Road A Street, Garage Road A Street, South Birdneck Road 4th Street A Street	Garage Road - Garage Road - 4th Street - A Street, Garage Road - A Street - A Street - A Street - 4th Street, Garage Road - 4th Street, Garage Road - A Street - A Street - A Street - A Street - A Street - A Street -	

134- 0413- 0175	A Street	-	A Street Marker- Camp Pendleton SMR (Current), Rose Marker (Descriptive)
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2.	A search of the data supplied by the U.S. Fish & Wildlife Service, the Virginia Department of Conservation and Recreation and the Virginia Department of Game and Inland Fisheries revealed the following:
	☐ No known populations of threatened or endangered species are located on or within the vicinity of the subject property.
	☐ The following federally-listed species may occur within the vicinity of the subject property: Northern Long Eared Bat
	☐ The following state-listed (or other) species may occur within the vicinity of the subject property:

Please note this information is being provided to you based on the preliminary data you submitted to the Corps relative to project boundaries and project plans. Consequently, these findings and recommendations are subject to change if the project scope changes or new information becomes available and the accuracy of the data.



Wetland Delineation Report – Naval Air Station Oceana

Coastal Virginia Offshore Wind Project, Virginia Beach, Virginia

March 2021

Project No.: 0522898



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Acronyms and Abbreviations

CFR Code of Federal Regulations

ERM Environmental Resources Management

FAC Facultative Plants

FACU Facultative Upland Plants
FACW Facultative Wetland Plants

GIS Geographic Information Systems

GPS Global Positioning System

NHD National Hydrography Dataset

NRCS Natural Resource Conservation Service

NWI National Wetland InventoryOBL Obligate Wetland PlantsOHWM Ordinary High Water Mark

PEM Palustrine System Emergent Wetland Class

PFO Palustrine Forested Wetland Class

Project Oceana Project

PSS Palustrine System Scrub-Shrub Wetland Class

Site Oceana Project UPL Upland Plants

USACE U.S. Army Corps of Engineers
USDA U.S. Department of Agriculture

USGS U.S. Geological Survey

1. INTRODUCTION

On behalf of Dominion Energy, Environmental Resources Management (ERM) conducted a wetland and waterbody delineation on U.S. Navy lands at Naval Air Station Oceana for the proposed Coastal Virginia Offshore Wind Project ("Project") in Virginia Beach, Virginia. The approximately 42-acre survey area ("Site") is located east of Oceana Boulevard (Route 615) and south of Bells Road, and is accessed from Oceana Boulevard via a gravel road. This report provides a description of the environmental setting of the Site, the methodology utilized for the wetland and waterbody delineation, and the results of the survey.

1.1 ENVIRONMENTAL SETTING

The Site is located within the Coastal Plain Province in Virginia's Tidewater region, and falls within the U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle map Princess Anne, Virginia (Figure 1). The Site consists of active and open agricultural fields comprised of soy beans (*Glycine max*) within a network of excavated drainage ditches intended to improve drainage over the relatively flat landscape. At the time of the survey, the soy had been harvested. Narrow patches of forested upland comprised of hardwood and evergreen species are scattered throughout the survey area, which also contained small piles of tires and other household debris at the time of survey.

A majority of the Site has a convex landscape, which is typical of uplands; however, ERM observed a depressed area containing household debris, trash, and pieces of concrete/asphalt within the northwest corner of the Site, adjacent to the intersection of Oceana Boulevard and Bells Road. Vegetation in this area included autumn olive (*Elaeagnus umbellata*), which is indicative of a disturbed area and does not have a wetland indicator status.

1.1.1 Physiography, Geology, and Geomorphology

The Site is located within the Outer Coastal Plain sub-province of the Coastal Plain physiographic province. Virginia's Coastal Plain is bordered by the Fall Line to the west and by the Atlantic Ocean and Chesapeake Bay and its tributaries to the east. This is the youngest of the physiographic provinces, formed by sediments eroded from the Appalachian Highlands and deposited along the Atlantic shoreline. The Coastal Plain varies in topography from north to south. The northern Coastal Plain consists of three peninsulas formed between the four major tributaries of Chesapeake Bay: the Potomac, the Rappahannock, the York, and the James Rivers. In the north, the Northern Neck is somewhat hilly and well drained. Further south across the Middle Peninsula and Lower Peninsula the topography flattens, until south of the James River the landscape is nearly level. The Eastern Shore, separated from the mainland by the Chesapeake Bay, exhibits little topographic relief. These subtle differences in topography and the variety of fresh, brackish, and saltwater systems from ocean and inland bays to rivers, ponds, and bogs, have contributed to the wide variety of natural communities found on the Coastal Plain. (VADCR 2019).

1.1.2 Hydrology

The Site is located within the Lower Chesapeake Watershed and sub-watershed of Eastern Lower Delmarva (HUC 02040304). A large wetland complex was previously delineated in 2016 by the Navy (Appendix A) in a forested area located east of the Site. According to the Federal Emergency Management Agency's National Flood Hazard Layer, the entirety of the Project Site is located within Zone X (unshaded): areas of minimal flooding (FEMA 2009).

1.1.3 Soils

Table 1-1 provides a list of the types of soil series mapped by the U.S. Department of Agriculture, Natural Resource Conservation Service (USDA NRCS) on the Site. Figure 1 (Appendix B) depicts the distribution of the soil series. The Site contains six major soil types. Of these, Bojac (7), Dragston (13), and Munden (19), are the dominant soil types present, accounting for about 96.5 percent of the Site. These soil types, which are not considered hydric, are described below:

- The Bojac and Dragston series consists of deep, well drained and or gravelly soils. These soils have a high rate of water transmission. Bojac and Dragston soils are on marine terraces and have slopes of 0 to 2 percent (NRCS 2017).
- The Munden series have moderately fine texture to moderately coarse texture with a moderate infiltration rate when thoroughly wet. These soils are on marine terraces and prime farmland. Slopes are 0 to 2 percent (NRCS 2017).

The remaining soil types present, Nimmo (24), Tomoteley (38), and Udorthents (40), account for about 3.5 of the Site. These soils, which are considered hydric, occur along the eastern boundary of the Site adjacent to the forested area to the east noted above (NRCS 2017).

As described above, most of the Site is currently disturbed by agricultural activities.

Map Unit Map Unit Name Total % of **Acres Total** Bojac fine sandy loam, 0 to 2 percent 7 13.1 31.0 13 Dragston fine sandy loam, 0 to 2 percent 12.5 29.6 19 Munden fine sandy loam, 0 to 2 percent 15.0 35.5 24 Nimmo loam, 0 to 2 percent 0.1 0.2 0.2 38 Tomoteley loam, 0 to 2 percent 0.5 40 1.3 Udorthents, loamy, 0 to 25 percent 3 1

Table 1-1: USDA NRCS Soil Series Mapped Onsite 1

1.1.4 Vegetation

The vegetation on the Site consists of agriculture soy. The excavated drainage ditches are vegetated with herbaceous cover, including patches of early yellowrocket (*Barbarea verna*), pale dock (*Rumex altissimus*), and goose grass (*Eleusine indica*). The scattered forested patches are dominated by several native species, including southern live oak (*Quercus virginiana*), sweetgum (*Liquidambar styraciflua*), and American holly (*Ilex opaca*) with the common invasive species of autumn olive (*Elaeagnus umbellata*) in the shrub layer.

2. METHODS

2.1 DESKTOP REVIEW

Prior to conducting field surveys, ERM reviewed high-resolution aerial photography and Geographic Information System (GIS) data including the U.S. Fish and Wildlife Service (USFWS) National Wetlands

¹ The sum of the percentages in this table is 99.9% due to rounding.

Inventory (NWI), National Hydrography Dataset (NHD), Natural Resource Conservation Service Web Soil Survey, and USGS topographic maps. These resources were used both prior to and during field surveys to identify potential wetland or waterbody areas.

2.1.1 Aerial Photography

High resolution aerial imagery was reviewed to assist in evaluating the Site for possible wetland signatures and recent disturbances on the landscape that could influence the presence and extent of wetlands. Possible visual signatures include, but are not limited to, surface water, varying color and texture changes in vegetation, and isolated areas within farmland that are not successfully farmed due to poor drainage.

2.1.2 National Wetland Inventory

NWI data (USFWS 2020) were overlaid on high-resolution aerial imagery and reviewed in conjunction with soils surveys and topographic maps. NWI data are subject to limitations associated with the aerial photo interpretation completed to map wetlands; therefore, these data are used as a guide to identify potential wetlands. Maps that illustrated NWI wetland polygons were provided to field crews to help guide targeted field surveys at and near the Site.

2.1.3 Soil Survey

The NRCS Web Soil Survey was used to obtain soil survey information for the Site. Soil maps were used as a guide to identify locations of potential hydric soils on the Site. Field investigation was required to verify the presence of hydric soils, particularly given the disturbed conditions present throughout much of the Site. Figure 1 (Appendix B) presents the soil types mapped onsite.

2.1.4 National Hydrography Dataset

The NHD depicts surface waters across the United States, including some, but not all, rivers, streams, canals, lakes, and ponds. The data are provided at a scale of 1:24,000. Not all water features are shown at this scale, and those that are provide only a moderate level of detail. The NHD layer includes data for perennial, intermittent, and ephemeral streams as well as artificial paths, canals/ditches, coastlines, connectors, pipelines, and underground conduit (USGS 2019).

2.1.5 Site Assessment

The Site was evaluated using the above desktop resources to determine the potential presence of wetlands, waterbodies (streams and ponds), and non-tidal ditches. Data were also collected to document a lack of water features where desktop data, such as NWI polygons, indicated water features may be present but no such features were identified during the field survey. These were referred to as non-water points. Each water resource documented within the Site was assigned a Project-specific unique identifier or Unique ID. Specific naming conventions were followed during field surveys to catalog each wetland and waterbody documented. Table 2-1 describes each part of the naming convention that comprise the Unique IDs for non-water points identified during field surveys. These naming conventions are used in the results summary table (Table 3-1) and the non-water data sheets provided in Appendix C.

Table 2-1: Naming Protocol for Unique ID

Water Resource	Туре	Field Crew Letter	Feature Number
Non-water Point	no = non-water	crew letter (e.g., a, b, c)	001, 002, 003,

2.2 FIELD SURVEY

On January 21, 2021, ERM performed a field survey to determine if wetlands or waterbodies are present onsite. The Site was surveyed with a transect spacing of 5 to 10 feet between delineators. Field data observation points and non-water points were recorded using a Trimble® 7000 series GeoXH model global positioning system (GPS) unit. The field data collection settings within the GPS units used a sufficient number of available satellites to capture location data. Note that while the GPS data collected during survey provides reasonably accurate spatial information capable of collecting sub-meter accuracy with sufficient satellite reception, it does not constitute the same accuracy as a professional land survey.

2.2.1 Wetlands

Field surveys were based on the wetland delineation methodologies as described in the U.S. Army Corps of Engineers 1987 Manual (1987 Manual; USACE 1987) and the *Regional Supplement to the USACE Wetland Delineation Manual: Atlantic and Gulf Coastal Plain* (Version 2.0; USACE November 2010) with use of the *National Wetland Plant List: 2018* (USACE 2018) for determination of plant indicator status, and the *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin 1979) to help determine if wetlands are onsite. According to the 1987 Manual, three criteria or parameters are considered during a wetland delineation. For an area to be considered a wetland it must have:

- A predominance of hydrophytic vegetation;
- Indications of wetland hydrology; and
- The presence of hydric soils under normal circumstances (i.e., where naturally problematic conditions or disturbances are absent).

2.2.1.1 Hydrophytic Vegetation

The 1987 Manual and National Wetland Plant List define the wetland indicator status of plants as follows:

- Obligate Wetland Plants (OBL): almost always occur in wetlands (estimated probability >99 percent) under natural conditions. With few exceptions, these plants (herbaceous or woody) are found in standing water or seasonally saturated soils (14 or more consecutive days) near the surface. These plants are of four types: submerged, floating, floating-leaved, and emergent.
- Facultative Wetland Plants (FACW): usually occur in wetlands (estimated probability >67 percent to 99 percent), but may occur in non-wetlands. These plants predominantly occur with hydric soils, often in geomorphic settings where water saturates the soils or floods the soil surface at least seasonally.
- <u>Facultative Plants (FAC)</u>: occur in wetlands and uplands (estimated probability 33 to 99 percent within wetlands). These plants can grow in hydric, mesic, or xeric habitats. The occurrence of these plants in different habitats represents responses to a variety of environmental variables other than just hydrology, such as shade tolerance, soil pH, and elevation. They have a wide tolerance of soil moisture conditions.
- Facultative Upland Plants (FACU): usually occur in uplands, but many occur in wetlands (estimated probability 1 percent to <33 percent in wetlands). These plants predominantly occur on drier or more mesic sites in geomorphic settings where water rarely saturates the soils or floods the soil surface seasonally.</p>
- Upland Plants (UPL): almost never occur in wetlands (estimated probability <1 percent). These plants occupy mesic to xeric upland habitats. They almost never occur in standing water or saturated soils. Typical growth forms include herbaceous, shrubs, woody vines, and trees.</p>

Dominant vegetation was assessed for each stratum present (tree, sapling/shrub, woody vine, and herbaceous) at a sample point location. In most cases, plant dominance was determined using the "50/20 Rule" in which species from each stratum that individually or collectively make up more than 50 percent of the total cover in each stratum, plus any other species that account for at least 20 percent of the total cover in the stratum, are determined to be dominant species. The hydrophytic vegetation criterion is met when more than 50 percent of the dominant plant species are classified as OBL, FACW, or FAC. Vegetation information was recorded on the appropriate wetland datasheets (Appendix C).

2.2.1.2 Wetland Hydrology

Hydrology is influenced by many variables, including seasonal and long-term rainfall patterns, local geology, topography, soil type, local water table conditions, and drainage. According to the 1987 Manual and the Regional Supplement, wetland hydrology is present if 14 or more consecutive days of inundation or water saturation within 12 inches of the soil surface occur during the growing season at a minimum frequency of 5 in 10 years.

Indicators of wetland hydrology provide evidence that a site has a persistent wetland hydrologic regime. The Regional Supplement provides a list of hydrology indicators that include primary and secondary indicators, which are grouped as:

- Observation of Surface Water or Saturated Soils
- Evidence of Recent Inundation
- Evidence of Current and Recent Soil Saturation
- Evidence of Other Site Conditions or Data

One primary indicator or two secondary indicators are required to confirm that wetland hydrology is present or occurs at some time during the growing season. Field observations of hydrology were made at each vegetation community sample point. Examples of key indicators observed include presence of surface water, high water table (\leq 12 inches from surface) within the hole dug for soil observations, saturated soil in the upper portion of the soil profile, water-stained leaves, drainage patterns as evidence of water presence, and the geomorphic position of the vegetation community and sample point location. Hydrology information was recorded on the appropriate wetland datasheet (Appendix C).

2.2.1.3 Hydric Soils

Hydric soils are characterized by specific morphological characteristics developed in the soil profile over time due to reduction of iron, manganese, and sulfur under saturated and anaerobic conditions (NRCS 2018). The 1987 Manual defines hydric soils as soils that are saturated, flooded or ponded long enough during the growing season to develop anaerobic conditions in the upper part. The hydric soil indicators described in the Regional Supplement are a subset of hydric soil indicators described in *Field Indicators of Hydric Soils in the United States, Version 8.2* (USDA NRCS 2018). The *Munsell Book of Soil Color Charts (Munsell 2015)* was used to determine soil matrix, concentration, depletion and mottle colors, in order to record the soil profile descriptions. The soils were observed and documented at representative sample point locations in both wetland communities and adjacent upland communities to help establish the wetland boundary. Soil profile descriptions were made at each sample point and recorded on the appropriate wetland datasheet (Appendix C).

2.2.1.4 Cowardin Classification

The Cowardin Classification was developed in 1979 to classify a variety of wetland habitats and divides wetlands into five systems: marine, estuarine, riverine, lacustrine, and palustrine (Cowardin 1979). These represent the five major landscape settings in which wetlands are located. The classification system further divides wetland communities into systems and classes. The current survey was conducted in

inland wetlands. Descriptions of the common Cowardin Classification inland community types are described below.

- Palustrine System Emergent Wetland Class (PEM): A PEM wetland is defined as a non-tidal wetland characterized by erect, rooted, hydrophytic herbaceous species. These wetland habitats are often dominated by perennial plants, where the vegetation is present for the majority of the growing season.
- Palustrine System Scrub-Shrub Wetland Class (PSS): A PSS wetland is defined as a non-tidal wetland consisting of woody vegetation that is less than 20 feet tall, including shrubs, young trees, and stunted trees or shrubs.
- Palustrine Forested Wetland Class (PFO): A PFO wetland is defined as a non-tidal wetland characterized by dominant woody vegetation that is greater than 20 feet tall, with an understory of small trees and shrubs, as well as an herbaceous layer.

Each wetland delineated was assigned a Cowardin class. For wetland complexes, or wetlands that are comprised of more than one wetland plant community (i.e., Cowardin class) a sample point was established and observations were recorded to document each community.

2.2.2 Waterbodies

Waterbodies documented during the field survey were assigned a Unique ID according to their flow and hydrology regimes: linear or flowing waterbodies, such as streams and rivers, were assigned a unique ID starting with an "s"; non-flowing open waterbodies, such as ponds and lakes, were assigned a unique ID starting with an "o." Linear or flowing waterbodies were identified as landscape features with a channel that include a bed and a bank in a concave landscape position where water flow has resulted in a feature that possesses an ordinary high water mark (OHWM). Waterbodies do not include erosional features, such as gullies, rills, or ditches, in accordance with the USACE Regulatory Guidance Letter regarding Ordinary High Water Mark Identification (USACE 2005).

Based on evidence of flow regime at the time of survey, linear waterbodies were attributed a flow regime according to the definitions provided by USACE for the Nationwide Permit Program in Title 33 Code of Federal Regulations (CFR) Part 328 & 329. Non-flowing, open waterbody features were assigned a Cowardin hydrology regime based on observations recorded at the time of survey. Definitions of these flow and hydrology regimes are included below, as defined in Title 33 CFR Part 328.

- Perennial Stream: has flowing water year-round during a typical year. The water table is located above the stream bed for most of the year and groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.
- Intermittent Stream: has flowing water during most times of the year when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water and runoff from rainfall is a supplemental source of water for stream flow.
- Ephemeral Stream: has flowing water only during and for a short duration after precipitation events. Ephemeral stream beds are located above the water table year-round; therefore, groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.

Non-flowing or open waterbodies were documented based on the evidence of inundation/saturation at the time of surveys, utilizing one of four categories based on the Cowardin classification including the following:

Non-flowing: water covers the land surface throughout the year in all years.

- Semi-non-flowing: surface water persists throughout the growing season in most years. When surface water is absent, the water table is usually at or very near the land surface.
- Seasonally flooded: surface water is present for extended periods especially early in the growing season, but is absent by the end of the season in most years. When surface water is absent, the water table is often near the land surface.
- Temporarily flooded: surface water is present for brief periods during the growing season, but the water table usually lies well below the soil surface for most of the season.

2.2.3 Non-Tidal Ditches

Ditches include waters that are constructed in tributaries or are relocated tributaries or, in certain circumstances, drain wetlands, or clearly function as a tributary. Ditches do not include erosional features, such as gullies, rills, and ephemeral streams that do not have a bed and banks and OHWM (U.S. Environmental Protection Agency [EPA] 2015). Stormwater features include structural or engineered control devices to treat or store polluted stormwater (EPA 2007).

Field crews documented these features as they had OHWM, bed and bank and connected to waters of the United States offsite. Ditches that exhibited wetland characteristics were classified as wetlands if they met the three parameters specified in the 1987 Manual or applicable Regional Supplement.

2.2.4 Non-Water Points

Non-water points were collected to document areas mapped as NWI polygons or NHD lines that did not meet the required criteria of wetlands or waterbodies (i.e., upland habitat). Non-water points were also used to document areas that were investigated as potentially meeting wetland criteria, but were ultimately determined to be non-wetland areas during the field investigation. Observations were recorded, photographs were taken, and a GPS point was collected at each non-water point. Wetland delineation datasheets were used to record information for non-water points (Appendix C).

3. RESULTS

On January 21, 2021, ERM surveyed the Site for the presence and extent of wetlands and waterbodies. Weather conditions during the fieldwork were typical for this time of year, and the entire Site was observed dry. No wetland or waterbody features were recorded indicating that use of the Site for the Project will not affect jurisdictional surface water features.

Four non-tidal/non-water ditches, cumulatively measuring 0.19 acres (approximately 0.5 percent of the survey area), were observed within the Site (Appendix B, Figure 2). Summary information on these features is provided in Table 3-1 below. Datasheets with photos of each ditch are provided in Appendix C. In ERM's opinion, the ditches do not represent jurisdictional surface water features.

As noted in Section 1.1 above, ERM observed a depressed area containing household debris, trash, and pieces of concrete/asphalt within the northwest corner of the Site, adjacent to the intersection of Oceana Boulevard and Bells Road. Vegetation in this area included autumn olive (*Elaeagnus umbellata*), which does not have a wetland indicator status. A data sheet for this area is provided in Appendix C, with summary information provided in Table 3-2 below.

Table 3-1.	Delineated	Non-Tidal/	Non-Water	Ditches
Table 3-1.	Delinealeo	NOH- HUAM	INCHI=VVALEL	Duches

Unique ID	Vegetation	Soils	Hydrology	Non-tidal ditch Area (Acres)	Latitude	Longitude	Wetland Classification Y/N
noa001	No	No hydric	No primary	0.045	36.81389	-76.00483	N
noa002	hydrophytic	soil	or	0.072	36.81662	-76.00549	N
noa003	vegetation indicators	indicators present	secondary hydrology	0.049	36.81824	-76.00411	N
noa004	present		indicators present and no surface water, saturation, or water table present	0.024	36.81776	-76.00599	N

Table 3-2: Data for Northwest Corner of Survey Area

Unique ID	Vegetation	Soils	Hydrology	Latitude	Longitude	Wetland Classification Y/N
noa005	No hydrophytic vegetation indicators present	No hydric soil indicators present	No primary or secondary hydrology indicators present and no surface water, saturation, or water table present	36.81893	-76.00737	N

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- Virginia Department of Conservation and Recreation (VADCR): Native Plants for Conservation, Restoration, and Landscaping: Virginia's Physiographic Provinces. 2019. Accessed 20 December 2020. Available online at https://www.dcr.virginia.gov/natural-heritage/va-physiographic-provinces

APPENDIX A 2016 PRELIMINARY JURISDICTIONAL DETERMINATION





DEPARTMENT OF THE ARMY

US ARMY CORPS OF ENGINEERS
NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1011

MAY 11, 2016

PRELIMINARY JURISDICTIONAL DETERMINATION

Eastern Virginia Regulatory Section NAO-2008-2946 (West Neck Creek, London Bridge Creek, Great Neck Creek)

Navy MidAtlantic Region Mr. Mike Jones Code N-45, Regional Environmental Group 1510 Gilbert Street Norfolk, Virginia 23511-2737

Dear Mr. Jones:

This letter is in regard to your request for a preliminary jurisdictional determination for waters of the U.S. (including wetlands) on property known as Oceana Naval Air Station, in Virginia Beach, Virginia.

The map entitled "Wetland Delineation Naval Air Station Oceana 20 May 2011", prepared by the US Army Corps of Engineers provides the location(s) of waters and/or wetlands on the property listed above. The basis for this delineation includes application of the Corps' 1987 Wetland Delineation Manual and Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region and the positive indicators of wetland hydrology, hydric soils, and hydrophytic vegetation and the presence of an ordinary high water mark.

This verification supersedes any previous verification within the areas surveyed and the entire wetland delineation is now valid for a period of five years from the date of this letter.

Discharges of dredged or fill material, including those associated with mechanized landclearing, into waters and/or wetlands on this site may require a Department of the Army permit and authorization by state and local authorities including a Virginia Water Protection Permit from the Virginia Department of Environmental Quality (DEQ), a permit from the Virginia Marine Resources Commission (VMRC) and/or a permit from your local wetlands board. This letter is a confirmation of the Corps preliminary jurisdiction for the waters and/or wetlands on the subject property and does not authorize any work in these areas. Please obtain all required permits before starting work in the delineated waters/wetland areas.

This is a preliminary jurisdictional determination and is therefore not a legally binding determination regarding whether Corps jurisdiction applies to the waters or wetlands in question. Accordingly, you may either consent to jurisdiction as set out in this

preliminary jurisdictional determination and the attachments hereto if you agree with the determination, or you may request and obtain an approved jurisdictional determination. This preliminary jurisdictional determination and associated wetland delineation map may be submitted with a permit application.

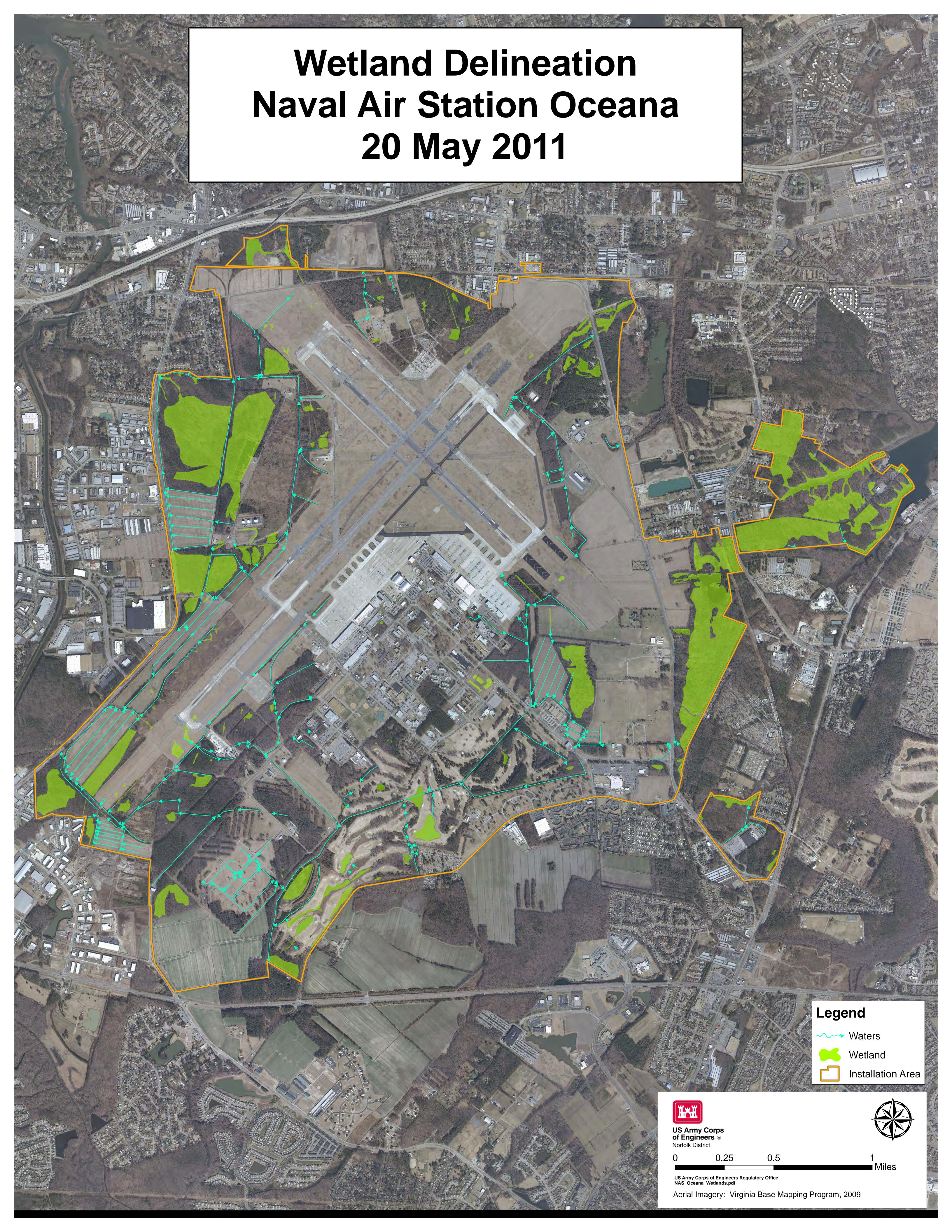
Enclosed is a copy of the "Preliminary Jurisdictional Determination Form". Please review the document, sign, and return one copy to Mr. Brian Denson, either via email (brian.c.denson@usace.army.mil) or via standard mail to US Army Corps of Engineers, Regulatory Office, and ATTN: Brian Denson, 803 Front Street Norfolk, Virginia 23510 within 30 days of receipt and keep one for your records. This delineation of waters and/or wetlands is valid for a period of five years from the date of this letter unless new information warrants revision prior to the expiration date.

If you have any questions, please contact me, either via telephone at (757) 201-7792 or via email at brian.c.denson@usace.army.mil.

Sincerely,

Brian Denson Project Manager, Environmental Scientist

Enclosure(s): Delineation Map, Preliminary JD Form, Supplemental Information



PRELIMINARY JURISDICTIONAL DETERMINATION FORM

BACKGROUND INFORMATION:

A.	REPORT COMPLETION	DATE FOR PRELIMINARY JURISDICTIONAL
	DETERMINATION (JD):	Tuesday, May 10, 2016

B. NAME AND ADDRESS OF PERSON REQUESTING PRELIMINARY JD:

Navy MidAtlantic Region Mr. Mike Jones Code N-45, Regional Environmental Group 1510 Gilbert Street Norfolk, Virginia 23511-2737

C. DISTRICT OFFICE: Norfolk District (CENAO-REG)

FILE NAME: NAS Oceana Wetland Delineation

FILE NUMBER: NAO-2008-2946

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

(USE THE ATTACHED TABLE TO DOCUMENT MULTIPLE WATERBODIES AT DIFFERENT SITES)

State: VIRGINIA County/parish/borough: City: Virginia Beach

Center coordinates of site (lat/long in degree decimal format):

Latitude: 36.823409 ° N Longitude: -76.031639 ° W

Universal Transverse Mercator: NAD 83

Name of nearest waterbody:

Identify (estimate) amount of waters in the review area:

Non-wetland waters: linear feet; width (ft); and/or acres.

Cowardin Class:

Stream Flow:

Wetlands: 5, 303 acres

Cowardin Class: PFO, PSS, PEM

Name of any water bodies on the site that have been identified as Section 10 waters:

Tidal:

Non-Tidal:

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

Office (Desk) Determination. Date:

- 1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.
- 2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable.
- 3. This preliminary JD finds that there "may be" waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA:

Data reviewed for preliminary JD (check all that apply) - checked items should be included in case file and, where checked and requested, appropriately reference sources below.

☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:

☐ Data sheets prepared/submitted by or	on behalf of the applicant/consultant.
Office concurs with data sheets/deli	ineation report.
Office does not concur with data sh	eets/delineation report.
□ Data sheets prepared by the Corps:	
Corps navigable waters' study:	
U.S. Geological Survey Hydrologic Atla	as:
USGS NHD data.	
USGS 8 and 12 digit HUC maps.	
☑ U.S. Geological Survey map(s). Cite so	cale & quad name:
□ USDA Natural Resources Conservation	n Service Soil Survey.
Citation:	
☑ National wetlands inventory map(s). C	cite name:
☐ State/Local wetland inventory map(s):	
☐ FEMA/FIRM maps:	
☐ 100-year Floodplain Elevation:	(National Geodetic Vertical Datum of 1929)
⊠ Photographs: ⊠ Aerial (Name & Date	e): Aerial Photos, various years, VGIN, Google Earth, Bing
or 🗵 Other (Name & Date	e): LIDAR
▼ Previous determination(s): Oceana Delinea	ation, May 20, 2011
File no. and date of res	ponse letter: NAO-2008-2946,
	risited areas that may have changed based on the regional lement and plant changes. Line is still accurate.
IMPORTANT NOTE: The information recorverified by the Corps and should not be redeterminations.	
DENSON.BRIAN DENSON.BRIAN.C.1168799671	JONES.MICHAE Digitally signed by JONES.MICHAEL.H.1050421968 DN: c=US, o=U.S. Government,
.C.1168799671 OLDOD, OLDON, OL	L.H.1050421968 ou=DoD, ou=PKI, ou=USN, on=USN,
Date: 2016.05.11 10:47:29 -04'00' Signature	Signature of person requesting
Regulatory Project Manager (REQUIRED)	Preliminary JD (REQUIRED, unless obtaining the signature is impracticable)
2016-05-11	
Date	Date

Wright, Michael F CIV USN (USA)

From: Denson, Brian C CIV USARMY CENAO (USA) <Brian.C.Denson@usace.army.mil>

Sent: Wednesday, September 25, 2019 11:06 AM

To: Wright, Michael F CIV USN (USA)

Cc: Kube, Peter R CIV USARMY CENAO (US)

Subject: RE: NASO PJD Wetland Mapping Effort_Clarification Regarding Agricultural Land

Signed By: brian.c.denson.civ@mail.mil

Good morning Mike,

That is correct. During our delineation we did NOT look at the farm "fields". Our focus was on the ditches within those fields. Let me know if I can be of any more assistance.

Brian Denson US Army Corps of Engineers, Norfolk District Eastern Virginia Regulatory Section 757-201-7792

----Original Message-----

From: Wright, Michael F CIV USN (USA) [mailto:michael.f.wright@navy.mil]

Sent: Wednesday, September 25, 2019 11:01 AM

To: Denson, Brian C CIV USARMY CENAO (USA) <Brian.C.Denson@usace.army.mil> Cc: Crum, E E (Pete) CIV USN NAVFAC MIDLANT NOR (USA) cete.crum@navy.mil>;

Herbert, Brandon T CIV USN NAVFAC MIDLANT NOR (USA)

<brandon.herbert@navy.mil>; Chamberlain, Terry N CIV USN NAVFAC MIDLANT
NOR (USA) <terry.n.chamberlain@navy.mil>; Wright, Kelly D (Dean) CIV USN
NAVFAC MIDLANT NOR (USA) <kelly.wright@navy.mil>; Carawan, Wilbur E CIV USN

NAVFAC MIDLANT NOR (US) <emmett.carawan@navy.mil>

Subject: NASO PJD Wetland Mapping Effort_Clarification Regarding

Agricultural Land

Hi Bryan:

Per our phone conversation, regarding USACE surveying efforts that led up to the initial NAS Oceana (NASO) 2011 PJD and the current 2016 PJD: USACE only surveyed and mapped linear wetland features (ditches and streams) that occurred in agricultural fields; and USACE did not survey for polygonal wetland features within agricultural fields. As such any construction actions that propose to convert agricultural lands that existed during the original 2011 USACE final mapping effort should complete wetland delineations before any ground disturbance. As you mentioned, you came out and confirmed no wetlands were present within the agricultural fields associated with the Back Gate Solar Array field project at NASO.

Sincerely,

Mike

Michael Wright

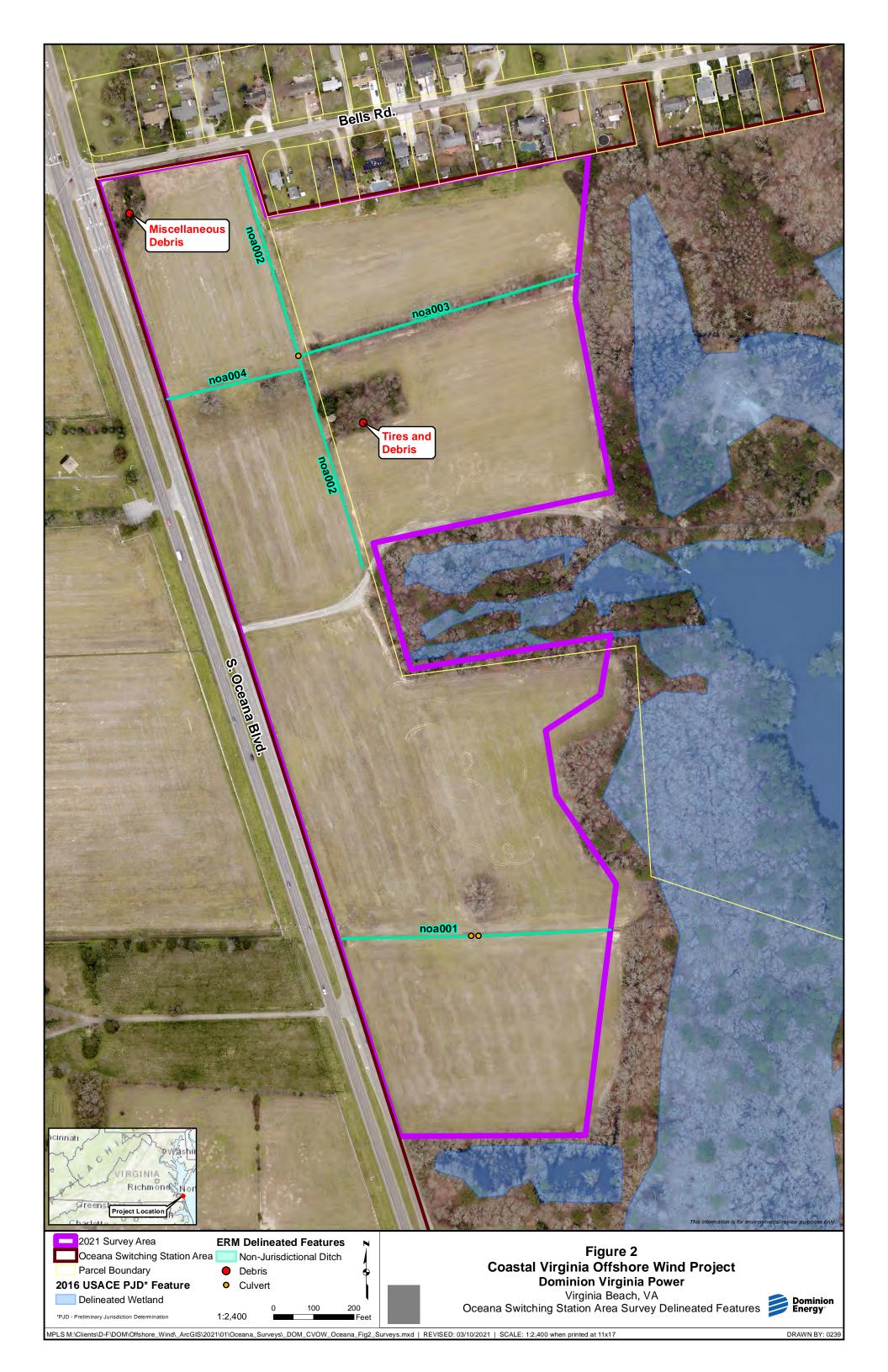
Natural Resources Manager (NASO) DoD Partners in Flight Rep. (VA) Office:

757-433-3461

APPENDIX B FIGURES







APPENDIX C DATASHEETS



WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: NAS Oceana	City/County: Virg	inia Beach	Sampling Date: 01/21/2021
Applicant/Owner: Dominion Energy		State: VA	Sampling Point: noa001
T 01 1 T D .	Section, Township		
Donroccion		Concove	Slope (%): 0-1
Subregion (LRR or MLRA). LRR T	Lat: 36.81389 N	Long: -76.00483 W	Datum: WGS84
Subregion (LRR or MLRA): LRR T Soil Map Unit Name: Munden fine sandy loam		NWI classifi	cation:
Are climatic / hydrologic conditions on the site typical for			
Are Vegetation, Soil, or Hydrology			
Are Vegetation, Soil, or Hydrology		(If needed, explain any answe	
SUMMARY OF FINDINGS – Attach site ma			
	.,	<u> </u>	
Hydrophytic Vegetation Present? Yes	No X Is the San within a W	npled Area	
Hydric Soil Present? Yes Wetland Hydrology Present? Yes	No X within a W	/etland? Yes	No X
Remarks:			
No hydrology, no hydrophytic vegeta	tion or hydric soils pro	esent Restrictive lav	ver at 4 inches due to
drain tile likely for drainage of agricul			yor at 1 mones ado to
aram and interfree dramage or agricul	tarar.		
HYDROLOGY			
Wetland Hydrology Indicators:		_	ators (minimum of two required)
Primary Indicators (minimum of one is required; check			Cracks (B6)
1 	atic Fauna (B13)		getated Concave Surface (B8)
	Deposits (B15) (LRR U)	☐ Drainage Pa	
	rogen Sulfide Odor (C1) lized Rhizospheres along Living I	Moss Trim L Roots (C3) □ Dry-Season	Water Table (C2)
	sence of Reduced Iron (C4)	Crayfish Bui	· ·
	ent Iron Reduction in Tilled Soils	= '	isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Muck Surface (C7)	Geomorphic	Position (D2)
Iron Deposits (B5)	er (Explain in Remarks)	Shallow Aqu	iitard (D3)
Inundation Visible on Aerial Imagery (B7)		FAC-Neutra	,
Water-Stained Leaves (B9)		<u></u> Sphagnum r	noss (D8) (LRR T, U)
Field Observations:	Depth (inches):		
	Depth (inches):		
	Depth (inches):	Wetland Hydrology Prese	nt? Yes No_X
(includes capillary fringe)			iit: fes NO
Describe Recorded Data (stream gauge, monitoring we	ell, aerial photos, previous inspec	ctions), if available:	
Remarks:			
remarks.			

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

<u>Tree Stratum</u> (Plot size: 30)				
Troo Strotum (Diot cize: 30)		Dominant		Dominance Test worksheet:
4 None		Species?		Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
2.				
3.				Total Number of Dominant Species Across All Strata: 2 (B)
4.				Openies Across All Ottata.
5				Percent of Dominant Species That Are OBL FACW or FAC: 0 (A/B)
				That Are OBL, FACW, or FAC: 0 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8				OBL species $0 x 1 = 0$
FOO/ of total account		= Total Cov		FACW species $0 x 2 = 0$
50% of total cover:	20% 01	total cover		FAC species $0 \times 3 = 0$
Sapling/Shrub Stratum (Plot size: 15)				FACU species 30 $x 4 = 120$
				UPL species 70 $x = 350$
2				Column Totals: 100 (A) 470 (B)
3				(b)
4				Prevalence Index = $B/A = 4.70$
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
B				3 - Prevalence Index is ≤3.0 ¹
	:	= Total Cov	er	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:	20% of	total cover		
Herb Stratum (Plot size: 5				¹ Indicators of hydric soil and wetland hydrology must
1. Barbarea verna	70	Υ	UPL	be present, unless disturbed or problematic.
2. Eleusine indica	30	N	FACU	Definitions of Four Vegetation Strata:
3.				
				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
4 5				more in diameter at breast height (DBH), regardless of height.
4				more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less
4				more in diameter at breast height (DBH), regardless of height.
4				more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless
4				more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
4				more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
4				more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
4				more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
4	100	= Total Cov	er	more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
4	100	= Total Cov	er	more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
4		= Total Cov	er 20	more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
4		= Total Cov	er 20	more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
4	100	= Total Cov	er 20	more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
7	100 ;	= Total Cover	er 20	more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
4		= Total Cover	er 20	more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
4		= Total Cov total cover	er 20	more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
4	100 g	= Total Cover	20 er	more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.

SOIL Sampling Point: noa001

Profile Desc	cription: (Describe	to the depth	needed to docu	ment the ir	ndicator	or confirm	n the absence	of indicate	ors.)	
Depth	Matrix			x Features						
(inches)	Color (moist)	<u> %</u> _	Color (moist)	%	Type'	Loc ²	<u>Texture</u>		Remarks	
0-4	10YR 3/4	100					Silt Loam	Restrictiv	ve layer at 4	inches.
·							·			
										<u> </u>
·							·			
	-									
	oncentration, D=De					ains.			ining, M=Matri	
l	Indicators: (Appli	cable to all Li							matic Hydric	Soils':
Histosol	, ,		Polyvalue Be					Лиск (A9) (L	•	
· =	pipedon (A2)		Thin Dark S					Лuck (A10)		
	stic (A3)		Loamy Muck			(O)				MLRA 150A,B)
	en Sulfide (A4)		Loamy Gley		-2)					(LRR P, S, T)
_	d Layers (A5)		Depleted Ma		2)			_	Loamy Soils (F20)
	Bodies (A6) (LRR I		Redox Dark				1 1 '	RA 153B)	:-L (TEO)	
	ucky Mineral (A7) (L esence (A8) (LRR (Depleted Da					arent Mater	ıaı (1F2) k Surface (TF1	2)
	ick (A9) (LRR)	J)	Redox Depre)			กลแอพ บลก (Explain in I	,	2)
_ =	d Below Dark Surfa	co (Δ11)	Depleted Oc	,	MI RA 1	51)	<u> </u>	(Explain in i	Nemarks)	
	ark Surface (A12)	GC (A11)	Iron-Mangar	. , .		•	T) ³ Indic	cators of hyd	drophytic vege	tation and
	rairie Redox (A16) (MLRA 150A)					•		ogy must be p	
_	lucky Mineral (S1)		Delta Ochric			, -,		-	ed or problema	
	Gleyed Matrix (S4)	-,-,	Reduced Ve			0A, 150B)				
	Redox (S5)		Piedmont Fl							
	Matrix (S6)						A 149A, 153C	, 153D)		
☐ Dark Su	rface (S7) (LRR P,	S, T, U)								
Restrictive	Layer (if observed):								
Type: Dr	ain tile									
Depth (in	ches): 4.0 in						Hydric Soil	Present?	Yes	No X
Remarks:	· ·						1			<u> </u>

noa001



Facing East



Facing West

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: NAS Oceana	City/County: Virg	inia Beach	Sampling Date: 01/21/2021
Applicant/Owner: Dominion Energy		State: VA	Sampling Point: noa002
T Oimen: 7 Donama	Section, Township		
Landform (hillslope, terrace, etc.): Depression	Local relief (conca		e slone (%): 0-1
Subregion (LRR or MLRA): LRR T			
Soil Map Unit Name: Munden fine sandy loam			
		NWI classif	
Are climatic / hydrologic conditions on the site typical			
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances"	present? Yes X No
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS - Attach site	map showing sampling poi	nt locations, transect	s, important features, etc.
	X		<u> </u>
Hydrophytic Vegetation Present? Yes	No X Is the Sam	-	
	No X within a W	etland? Yes	No X
Remarks:			
No hydrology, no hydrophytic vege	tation or hydric soils pre	seent Poetrictive la	ver at 4 inches due to
		eseni. Resinctive la	yer at 4 mones due to
drain tile likely for drainage of agric	ultural.		
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary India	cators (minimum of two required)
Primary Indicators (minimum of one is required; che	ck all that apply)		il Cracks (B6)
	quatic Fauna (B13)		egetated Concave Surface (B8)
	arl Deposits (B15) (LRR U)		atterns (B10)
Saturation (A3)	ydrogen Sulfide Odor (C1)	Moss Trim	Lines (B16)
Water Marks (B1)	xidized Rhizospheres along Living F	Roots (C3) 🔲 Dry-Seasor	n Water Table (C2)
Sediment Deposits (B2)	resence of Reduced Iron (C4)	Crayfish Bu	ırrows (C8)
Drift Deposits (B3)	ecent Iron Reduction in Tilled Soils	(C6) Saturation	Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	hin Muck Surface (C7)	Geomorphi	c Position (D2)
Iron Deposits (B5)	ther (Explain in Remarks)	Shallow Aq	uitard (D3)
Inundation Visible on Aerial Imagery (B7)		FAC-Neutra	al Test (D5)
☐ Water-Stained Leaves (B9)		☐ Sphagnum	moss (D8) (LRR T, U)
Field Observations:			
	Depth (inches):		
	Depth (inches):		
	Depth (inches):	Wetland Hydrology Prese	ent? Yes No X
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring	well, aerial photos, previous inspec	l tions), if available:	
(0 0 7		,,	
Remarks:			

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

	ames of pl	arito.		Sampling Point: noa002
		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30) 1. None		Species?		Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
2.				
3.				Total Number of Dominant Species Across All Strata: 1 (B)
i				
5.				Percent of Dominant Species That Are OBL_FACW_or_FAC: 0 (A/R)
5.				That Are OBL, FACW, or FAC: 0 (A/B)
7				Prevalence Index worksheet:
3.				Total % Cover of: Multiply by:
·-		= Total Cov		OBL species 0 x 1 = 0
50% of total cover:				FACW species $\frac{5}{}$ x 2 = $\frac{10}{}$
Sapling/Shrub Stratum (Plot size: 15)	20 /6 01	lotal cover	• ——	FAC species $0 x 3 = 0$
None				FACU species 30 x 4 = 120
				UPL species 65 x 5 = 325
				Column Totals: 100 (A) 455 (B)
B				(-)
l				Prevalence Index = $B/A = 4.55$
i				Hydrophytic Vegetation Indicators:
5				1 - Rapid Test for Hydrophytic Vegetation
·				2 - Dominance Test is >50%
3				3 - Prevalence Index is ≤3.0 ¹
				
		= Total Cov	/er	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:	·			Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: Herb Stratum (Plot size: ⁵)	·			
50% of total cover: Herb Stratum (Plot size: ⁵)	·			Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
50% of total cover:) Herb Stratum (Plot size: 5 Barbarea verna	20% of	total cover	:	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
50% of total cover: Herb Stratum (Plot size: 5) Barbarea verna Eleusine indica	20% of	total cover	:	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata:
50% of total cover: Herb Stratum (Plot size: 5) Barbarea verna Eleusine indica Rumex altissimus	20% of 65 30 5	Y N N	UPL FACU FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
50% of total cover: Herb Stratum (Plot size: 5) Barbarea verna Eleusine indica Rumex altissimus	20% of 65 30 5	Y N N	UPL FACU FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
50% of total cover: Herb Stratum (Plot size: 5) Barbarea verna Eleusine indica Rumex altissimus	20% of 65 30 5	Y N N	UPL FACU FACW	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
50% of total cover: Herb Stratum (Plot size: 5) Barbarea verna Eleusine indica Rumex altissimus L	20% of 65 30 5	Y N N	UPL FACU FACW	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less
50% of total cover: Herb Stratum (Plot size: 5) Barbarea verna Eleusine indica Rumex altissimus 5	20% of 65 30 5	Y N N	UPL FACU FACW	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
50% of total cover: Herb Stratum (Plot size: 5) Barbarea verna Eleusine indica Rumex altissimus 5. 5. 6. 7. 8.	20% of 65 30 5	Y N N	UPL FACU FACW	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless
50% of total cover: Herb Stratum (Plot size: 5) Barbarea verna Eleusine indica Rumex altissimus	20% of 65 30 5	Y N N	UPL FACU FACW	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
50% of total cover: Herb Stratum (Plot size: 5) Barbarea verna Eleusine indica Rumex altissimus	20% of 65 30 5	Y N N	UPL FACU FACW	 ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
Solid total cover: Solid total cover:	20% of 65 30 5	Y N N	UPL FACU FACW	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Solid total cover: Solid total cover:	20% of 65 30 5	Y N N	UPL FACU FACW	 ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
So% of total cover: Herb Stratum (Plot size: 5) Barbarea verna Eleusine indica Rumex altissimus 5. 5. 6. 7. 8. 9. 10. 11. 12.	20% of 65 30 5	Y N N STATE OF THE PROPERTY OF	UPL FACU FACW	 ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
So% of total cover:	20% of 65 30 5	Y N N STATE OF THE PROPERTY OF	UPL FACU FACW	 ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover:	20% of 65 30 5	Y N N STATE OF TOTAL COVER	UPL FACU FACW	 ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
Solid Stratum Solid Stratu	20% of 65 30 5	Y N N STATE OF TOTAL COVER	UPL FACU FACW	 ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
So% of total cover:	20% of 65 30 5 5	Y N N STATE OF THE TOTAL COVER	UPL FACU FACW	 ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
Solid Stratum Solid Stratu	20% of 65 30 5 5	Y N N = Total Cover	UPL FACU FACW	 ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover: Herb Stratum (Plot size: 5) Barbarea verna Eleusine indica Rumex altissimus 4	20% of 65 30 5 5	Y N N = Total Cover	UPL FACU FACW	 ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
50% of total cover:	20% of 65 30 5	Y N N S S S S S S S S S S S S S S S S S	UPL FACU FACW Ver 20	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
Sow of total cover: Sow of total cover:	20% of 65 30 5 5	Y N N STATE OF TOTAL COVER	UPL FACU FACW Ver Ver	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.

SOIL Sampling Point: noa002

Profile Desc	cription: (Describe	to the depth	needed to docu	ment the ir	ndicator	or confirm	n the absence	of indicato	rs.)	
Depth	Matrix			x Features						
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type'	Loc ²	<u>Texture</u>		Remarks	
0-4	10YR 3/4	100					SiltLoam	Restrictiv	e layer at 4	inches.
<u> </u>							-	-		
l										
	-									
	-							-		
	oncentration, D=De					ains.			ning, M=Matri	
l	Indicators: (Appli	cable to all Li	<u> </u>		•				matic Hydric	Soils":
Histosol	, ,		Polyvalue Be				. —	Лиск (A9) (L	•	
l 🛏 '	pipedon (A2)		Thin Dark Su					Лuck (A10) (
	istic (A3)		Loamy Muck			R O)		•	, .	MLRA 150A,B)
	en Sulfide (A4)		Loamy Gley		- 2)					(LRR P, S, T)
	d Layers (A5)		Depleted Ma		۵)			_	Loamy Soils (F20)
_	Bodies (A6) (LRR I		Redox Dark	,	,		`	RA 153B)	-1 (TEO)	
	ucky Mineral (A7) (L		Depleted Da					arent Materi	ai (1F2) :Surface (TF1	2)
	resence (A8) (LRR luck (A9) (LRR P, T)		Redox Depre		5)			nallow Dark (Explain in F	•	۷)
_	d Below Dark Surfa		Depleted Oc		MI RA 1	51)	<u> </u>	(Explain in r	Kerriarks)	
	ark Surface (A12)	cc (ATT)	Iron-Mangar		•	•	T) ³ Indic	ators of hyd	rophytic vege	tation and
l '==	rairie Redox (A16) (MLRA 150A)							ngy must be pi	
_	/lucky Mineral (S1)		Delta Ochric			, -,			d or problema	
	Gleyed Matrix (S4)	-,-,	Reduced Ve			0A, 150B)				
	Redox (S5)		Piedmont Flo							
	Matrix (S6)						RA 149A, 153C	, 153D)		
☐ Dark Su	rface (S7) (LRR P,	S, T, U)		_						
Restrictive	Layer (if observed):								
Type: Dr	ain tile									
Depth (in	ches): 4.0 in						Hydric Soil Present? Yes No X			
Remarks:										
D	rain tile prese	ent at 4 in	ches likely of	due to d	lrainin	g Agric	ultural fiel	ds.		

noa002



Facing North



Facing South

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: NAS Oceana	City/C	county: Virginia Beach		Sampling Date: 01/21/2021				
Applicant/Owner: Dominion Energy	,	(State: VA	Sampling Point: noa003				
Investigator(s): T. Cimpi, Z. Bryant Section, Township, Range:								
Donroccio	n		Concavo	Slope (%): 0-1				
Subregion (LRR or MLRA): LRR T	_{Lat:} 36.81824 N	l long: -7	76.00411 W	Datum: WGS84				
Subregion (LRR or MLRA): LRR T Soil Map Unit Name: Munden fine sandy lo	am ====================================		NWI classific	ation:				
Are climatic / hydrologic conditions on the site								
Are Vegetation, Soil, or Hydrol								
Are Vegetation, Soil, or Hydrol			xplain any answer					
SUMMARY OF FINDINGS – Attach								
			110, trailocoto	, important routaros, etc.				
Hydrophytic Vegetation Present? Yes	s No X	Is the Sampled Area						
Hydric Soil Present? Yes Wetland Hydrology Present? Yes	S No X S No X	within a Wetland?	Yes	No X				
Remarks:	S NO <u>^</u>							
No hydrology, no hydrophytic	vegetation or hydric	soils present Re	etrictive lav	er at 6 inches due to				
drain tile likely for drainage of	. ,	Solis present. Ite	estrictive lay	er at o mones due to				
diam the likely for diamage of	agricultural.							
HYDROLOGY								
Wetland Hydrology Indicators:			Secondary Indica	tors (minimum of two required)				
Primary Indicators (minimum of one is require	ed; check all that apply)		Surface Soil	Cracks (B6)				
Surface Water (A1)	Aquatic Fauna (B13)		Sparsely Veg	getated Concave Surface (B8)				
High Water Table (A2)	Marl Deposits (B15) (LRF		Drainage Pat	terns (B10)				
Saturation (A3)	Hydrogen Sulfide Odor (C	,	Moss Trim Li	,				
Water Marks (B1)	Oxidized Rhizospheres a			Water Table (C2)				
Sediment Deposits (B2)	Presence of Reduced Iro	, ,	Crayfish Burr	` '				
Drift Deposits (B3) Algal Mat or Crust (B4)	Recent Iron Reduction in Thin Muck Surface (C7)	Tilled Solls (C6)	Geomorphic	sible on Aerial Imagery (C9)				
Iron Deposits (B5)	Other (Explain in Remark	re)	Shallow Aqui	` '				
Inundation Visible on Aerial Imagery (B7		.5)	FAC-Neutral Test (D5)					
Water-Stained Leaves (B9)	,		=	noss (D8) (LRR T, U)				
Field Observations:								
Surface Water Present? Yes N	lo X Depth (inches):							
	lo X Depth (inches):			.,				
	lo X Depth (inches):	Wetland H	Wetland Hydrology Present? Yes No X					
(includes capillary fringe) Describe Recorded Data (stream gauge, more	nitoring well, aerial photos, pre	vious inspections), if avai	ilable:					
Remarks:								

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

/EGETATION (Four Strata) – Use scientific na	ames of pl	ants.		Sampling Point: noa003
		Dominant		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: 30 1. Quercus virginiana	% Cover 80	Species?	Status FACU	Number of Dominant Species That Are OBL FACW or FAC: 0 (A)
·· ·			1 ACO	That Are OBL, FACW, or FAC: 0 (A)
2				Total Number of Dominant
3				Species Across All Strata: 2 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 0 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8				OBL species $0 \times 1 = 0$
40		= Total Cov		FACW species $0 \times 2 = 0$
50% of total cover: 40	20% of	total cover:	16	FAC species $\frac{0}{x^2 + x^2}$
Sapling/Shrub Stratum (Plot size: 15				FACU species 105 x 4 = 420
1. None				UPL species 30 x 5 = 150
2				405
3				Column Totals: 135 (A) 5/0 (B)
4				Prevalence Index = $B/A = 4.22$
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 ¹
		= Total Cov	er	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:	20% of	total cover	:	
Herb Stratum (Plot size: 5				¹ Indicators of hydric soil and wetland hydrology must
1. Barbarea verna	30	Υ	UPL	be present, unless disturbed or problematic.
2. Eleusine indica	25	N	FACU	Definitions of Four Vegetation Strata:
3				Tree Meady plants evaluding vince 2 in (7.6 cm) or
4				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
5				height.
6.				Sapling/Shrub – Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8.				Home All banks assure (non-used to plants assured)
9.				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
10				
11				Woody vine – All woody vines greater than 3.28 ft in height.
12.				Holghi.
		= Total Cov	er	
50% of total cover: 27.5				
Woody Vine Stratum (Plot size: 15)	2070 01	total oover.		
None				
2				
J		= Total Cov		Hydrophytic Vegetation
EOO/ of total across				Present? Yes No X
50% of total cover:		iolai cover		
Remarks: (If observed, list morphological adaptations bel	low).			

SOIL Sampling Point: noa003

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)											
Depth	Matrix			x Features							
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	Texture	Remarks			
0-6	10YR 4/3	100					SiltLoam	Restrictive layer at 6 inches.			
				-							
					-						
l											
					-						
	-										
1=		- Indian DM I	Davidson and Markets Mil				21	DL. David Linda at M. Markin			
	oncentration, D=De Indicators: (Appli					ains.		PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :			
l		cable to all L						•			
Histosol	, ,		Polyvalue Be					Muck (A9) (LRR O)			
· =	pipedon (A2)		Thin Dark Su					Muck (A10) (LRR S)			
	istic (A3)		Loamy Muck			S O)	Reduced Vertic (F18) (outside MLRA 150A,B)				
	en Sulfide (A4)		Loamy Gleye		F2)		Piedmont Floodplain Soils (F19) (LRR P, S, T)				
	d Layers (A5)		Depleted Ma								
	Bodies (A6) (LRR I		Redox Dark		,			RA 153B)			
	ucky Mineral (A7) (L		Depleted Da					Red Parent Material (TF2)			
	resence (A8) (LRR		Redox Depre	•	8)			Shallow Dark Surface (TF12)			
	uck (A9) (LRR P, T)			.RR U)			U Other	Other (Explain in Remarks)			
Deplete	d Below Dark Surfa	ce (A11)	Depleted Oc	hric (F11)	(MLRA 1	51)					
	ark Surface (A12)		Iron-Mangan	ese Masse	es (F12) (LRR O, P,					
	rairie Redox (A16)					', U)		wetland hydrology must be present,			
	Mucky Mineral (S1)	(LRR O, S)	Delta Ochric	(F17) (ML	.RA 151)		unl	ess disturbed or problematic.			
Sandy C	Gleyed Matrix (S4)		Reduced Ve	rtic (F18) (MLRA 15	60A, 150B))				
Sandy F	Redox (S5)		Piedmont Flo	oodplain S	oils (F19)	(MLRA 14	49A)				
Stripped	d Matrix (S6)		Anomalous E	Bright Loar	ny Soils (F20) (MLF	RA 149A, 153C	c, 153D)			
Dark Su	ırface (S7) (LRR P,	S, T, U)									
	Layer (if observed):									
Type: Dr	ain tile										
Depth (in	ches): 6.0 in						Hydric Soil Present? Yes No X				
Remarks:	,										
	rain tile prese	ent at 6 ir	nches likely o	lue to c	drainin	a Aaric	ultural fiel	ds.			
_			,			3 - 3					

noa003



Facing East



Facing West

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: NAS Oceana	City/County: Virgi	nia Beach	Sampling Date: 01/21/2021				
Applicant/Owner: Dominion Energy	City/County: Virgi	State: VA	Sampling Point: noa004				
Investigator(s): T. Cimpi, Z. Bryant Section, Township, Range:							
Danvassian		0	Slope (%): 0-1				
Subregion (LRR or MLRA). LRR T	Lat: 36.81776 N	Long: -76.00599 W	Datum: WGS84				
Subregion (LRR or MLRA): LRR T Soil Map Unit Name: Munden fine sandy loam	_ Lut	NIVI classific	ation:				
Are climatic / hydrologic conditions on the site typical for	this time of year? Vos X	VIC (If no explain in P	omarke)				
Are Vegetation, Soil, or Hydrology							
Are Vegetation, Soil, or Hydrology		(If needed, explain any answer	•				
SUMMARY OF FINDINGS – Attach site ma	p snowing sampling poi	nt locations, transects	, important features, etc.				
Hydrophytic Vegetation Present? Yes	No X Is the Sam	pled Area					
Hydric Soil Present? Yes	No X	-	No X				
Wetland Hydrology Present? Yes	No X		<u> </u>				
Remarks:							
No hydrology, no hydrophytic vegetat		esent. Restrictive lay	er at 4 inches due to				
drain tile likely for drainage of agricult	ural.						
HYDROLOGY							
Wetland Hydrology Indicators:		Secondary Indica	tors (minimum of two required)				
Primary Indicators (minimum of one is required; check a	all that apply)	Surface Soil	Cracks (B6)				
Surface Water (A1)	tic Fauna (B13)	_	getated Concave Surface (B8)				
	Deposits (B15) (LRR U)	Drainage Pat					
	ogen Sulfide Odor (C1)	Moss Trim Li					
	zed Rhizospheres along Living R	Roots (C3) Dry-Season \	Water Table (C2)				
Sediment Deposits (B2)	ence of Reduced Iron (C4)	Crayfish Burr	rows (C8)				
☐ Drift Deposits (B3) ☐ Rece	nt Iron Reduction in Tilled Soils ((C6) Saturation Vi	sible on Aerial Imagery (C9)				
Algal Mat or Crust (B4)	Muck Surface (C7)	Geomorphic	Position (D2)				
Iron Deposits (B5)	r (Explain in Remarks)	Shallow Aqui	tard (D3)				
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral Test (D5)					
Water-Stained Leaves (B9)		Sphagnum m	noss (D8) (LRR T, U)				
Field Observations:							
	Depth (inches):						
	Depth (inches):		V				
Saturation Present? Yes No X I (includes capillary fringe)	Depth (inches):	Wetland Hydrology Presen	t? Yes No X				
Describe Recorded Data (stream gauge, monitoring we	II, aerial photos, previous inspec	tions), if available:					
Description							
Remarks:							

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

		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30) 1. None		Species?		Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
2.				
3.				Total Number of Dominant Species Across All Strata: 1 (B)
i.				Openies / toross / till otratia.
 5				Percent of Dominant Species That Are OBL FACW or FAC: 1 (A/B)
5				That Are OBL, FACW, or FAC: $\frac{1}{}$ (A/B)
				Prevalence Index worksheet:
7.				Total % Cover of: Multiply by:
3				OBL species $0 x 1 = 0$
		= Total Cov		FACW species $\frac{5}{}$ $x 2 = \frac{10}{}$
50% of total cover:	20% of	total cover	:	FAC species $0 \times 3 = 0$
Sapling/Shrub Stratum (Plot size: 15				FACU species 30
None				UPL species $\frac{65}{}$ x 5 = $\frac{325}{}$
2				Column Totals: 100 (A) 455 (B)
3				Column rotals (A) (B)
k				Prevalence Index = $B/A = 4.55$
5				Hydrophytic Vegetation Indicators:
S				1 - Rapid Test for Hydrophytic Vegetation
.				2 - Dominance Test is >50%
3.				3 - Prevalence Index is ≤3.0¹
·		= Total Cov	/er	
				Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover	20% of	total cover	•	
50% of total cover:	20% of	total cover	:	1
Herb Stratum (Plot size: 5)				¹ Indicators of hydric soil and wetland hydrology must
Herb Stratum (Plot size: 5) Barbarea verna	65	Y	UPL	be present, unless disturbed or problematic.
Herb Stratum (Plot size: 5) Barbarea verna Eleusine indica	65 30	Y N	UPL FACU	
Herb Stratum (Plot size: 5) Barbarea verna Eleusine indica Rumex altissimus	65 30 5	Y N N	UPL FACU FACW	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
Herb Stratum (Plot size: 5) Barbarea verna Eleusine indica Rumex altissimus	65 30 5	Y N N	UPL FACU FACW	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
Herb Stratum (Plot size: 5) Barbarea verna Eleusine indica Rumex altissimus	65 30 5	Y N N	UPL FACU FACW	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
Herb Stratum (Plot size: 5) Barbarea verna Eleusine indica Rumex altissimus 5.	65 30 5	Y N N	UPL FACU FACW	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less
Herb Stratum (Plot size: 5) Barbarea verna Eleusine indica Rumex altissimus 4.	65 30 5	Y N N	UPL FACU FACW	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
Herb Stratum (Plot size: 5) Barbarea verna Eleusine indica Rumex altissimus 5. 6.	65 30 5	Y N N	UPL FACU FACW	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
Herb Stratum (Plot size: 5) Barbarea verna Eleusine indica Rumex altissimus 5. 6. 7.	65 30 5	Y N N	UPL FACU FACW	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
Herb Stratum (Plot size: 5) Barbarea verna Eleusine indica Rumex altissimus 5. 5. 6. 7. 8.	65 30 5	Y N N	UPL FACU FACW	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Herb Stratum (Plot size: 5) Barbarea verna Eleusine indica Rumex altissimus 5. 6. 7. 8. 9. 10.	65 30 5	Y N N	UPL FACU FACW	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
Herb Stratum (Plot size: 5) Barbarea verna Eleusine indica Rumex altissimus 5. 6. 7. 8. 9. 10. 11.	65 30 5	Y N N	UPL FACU FACW	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Herb Stratum (Plot size: 5) Barbarea verna Eleusine indica Rumex altissimus 4. 5. 6. 7. 8. 9. 10. 11.	65 30 5	Y N N	PACU FACW	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
Herb Stratum (Plot size: 5) Barbarea verna Eleusine indica Rumex altissimus 5. 6. 7. 8. 9. 10.	65 30 5	N N	PACU FACW FACW Wer	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
Herb Stratum (Plot size: 5) Barbarea verna Eleusine indica Rumex altissimus 1. 5. 6. 7. 8. 9. 10. 11. 12.	65 30 5	N N	PACU FACW FACW Wer	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
Herb Stratum (Plot size: 5) Barbarea verna Eleusine indica Rumex altissimus 5. 6. 7. 8. 9. 10. 11. 12. 15. 16. 17. 18. 19. 19. 19. 19. 19. 19. 19. 19. 19. 19	65 30 5 	N N STATE OF TOTAL COVER	PACU FACW FACW Ver 20	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
Herb Stratum (Plot size: 5) Barbarea verna Eleusine indica Rumex altissimus A. B. Barbarea verna Barbarea	65 30 5 	N N N N N N N N N N N N N N N N N N N	PACU FACW FACW Ver 20	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
Herb Stratum (Plot size: 5) Barbarea verna Eleusine indica Rumex altissimus 1. 5. 6. 7. 8. 9. 10. 11. 12. Solve of total cover: 50 Noody Vine Stratum (Plot size: 15) None 2.	65 30 5 	N N STATE OF TOTAL COVER	PACU FACW FACW Ver 20	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
Herb Stratum (Plot size: 5)	65 30 5	N N STATE OF TOTAL COVERNMENT OF TOTAL COVERNM	PACU FACW FACW Ver 20	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
Herb Stratum (Plot size: 5)	65 30 5	N N STATE OF TOTAL COVERNMENT OF TOTAL COVERNM	PACU FACW FACW Ver 20	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
Herb Stratum (Plot size: 5)	65 30 5 	N N STATE OF TOTAL COVERNMENT OF TOTAL COVERNM	PACU FACW FACW Ver 20	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
Herb Stratum (Plot size: 5)	65 30 5 	N N STATE OF TOTAL COVERNMENT OF TOTAL COVERNM	UPL FACU FACW	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.

SOIL Sampling Point: noa004

Profile Des	cription: (Describe	to the depth	needed to docu	ment the ir	ndicator	or confirm	n the absence	of indicato	rs.)	
Depth	Matrix			ox Features						
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type'	Loc ²	Texture		Remarks	
0-4	10YR 3/4	100					SiltLoam	Restrictiv	e layer at 4	inches.
								-		
l										
	-									
	oncentration, D=De					ains.			ning, M=Matri	
l	Indicators: (Appli	cable to all L			•				matic Hydric	Soils":
Histoso	, ,		Polyvalue Be				. —	Лиск (A9) (L	•	
_	pipedon (A2)		Thin Dark S					Лuck (A10) (
_	istic (A3)		Loamy Muck			(O)			, ,	MLRA 150A,B)
	en Sulfide (A4)		Loamy Gley		F2)					(LRR P, S, T)
	d Layers (A5)		Depleted Ma		0)			_	Loamy Soils (F20)
_	Bodies (A6) (LRR I		Redox Dark	,	,		_ `	RA 153B)	-1 (TEO)	
_	ucky Mineral (A7) (L		Depleted Da					arent Materi	ai (1F2) : Surface (TF1	2)
	resence (A8) (LRR luck (A9) (LRR P, T)		Redox Depre		5)			nallow Dark (Explain in F	,	۷)
_	d Below Dark Surfa		Depleted Oc		MI RA 1	51)	Other	(Explain in r	Nemarks)	
	ark Surface (A12)	cc (ATT)	Iron-Mangar	. , .		•	T) ³ India	cators of hyd	Irophytic vege	tation and
l '==	rairie Redox (A16) ((MLRA 150A)							ngy must be p	
_	Mucky Mineral (S1)		Delta Ochric			, •,		-	d or problema	
_	Gleyed Matrix (S4)	-,-,	Reduced Ve			0A, 150B)				
_	Redox (S5)		Piedmont Fl							
	d Matrix (S6)						A 149A, 153C	, 153D)		
☐ Dark Su	ırface (S7) (LRR P,	S, T, U)		-						
Restrictive	Layer (if observed):								
Type: Dr	ain tile									
Depth (in	ches): 4.0 in						Hydric Soil	Present?	Yes	No X
Remarks:							1			
D	rain tile prese	ent at 4 in	ches likely of	due to d	raining	g Agric	ultural fiel	ds.		
			_							

noa004



Facing East



Facing West

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: NAS Oceana		City/C	ounty: Virginia	Beach	Sampling Date: 01/21/2021
Applicant/Owner: Dominion Ener	gy		,	State: VA	Sampling Point: noa005
Investigator(s): T. Cimpi, Z. Brya		Section			
U ()				C	e Slope (%): 0-1
Subregion (LRR or MLRA). LRR T		lat: 36.81893		Long: -76.00737	Datum: WGS84
Landform (hillslope, terrace, etc.): Landform (LRR or MLRA): LRR T Soil Map Unit Name: Munden fine	sandy loam			NIMI classifi	cation:
Are climatic / hydrologic conditions	on the site typical for	this time of year? V	oo X No	/If no explain in l	Comprise \
Are Vegetation, Soil					
Are Vegetation, Soil	, or Hydrology	naturally problema	atic? (If no	eeded, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS -	Attach site ma	ap showing sam	pling point	locations, transect	s, important features, etc.
Hydrophytic Vegetation Present?	Yes	No X	l- 4b - 0 l	J A	
Hydric Soil Present?	Yes	No X	Is the Sample		No X
Wetland Hydrology Present?	Yes	No X	within a Wetla	na? res	NO <u> </u>
Remarks:					
No hydrology, no hydro	phytic vegeta	tion, or hydric	soils prese	ent.	
HYDROLOGY					
Wetland Hydrology Indicators:				Secondary Indic	ators (minimum of two required)
Primary Indicators (minimum of on	e is required; check	all that apply)			l Cracks (B6)
Surface Water (A1)		atic Fauna (B13)		_	egetated Concave Surface (B8)
High Water Table (A2)		Deposits (B15) (LRF	5 11/		atterns (B10)
Saturation (A3)		ogen Sulfide Odor (C		Moss Trim I	
Water Marks (B1)		ized Rhizospheres a	•	_	Water Table (C2)
Sediment Deposits (B2)		ence of Reduced Iron		Crayfish Bu	
Drift Deposits (B3)		ent Iron Reduction in	, ,	= '	/isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Muck Surface (C7)	,		Position (D2)
Iron Deposits (B5)	$\overline{}$	r (Explain in Remark	s)	Shallow Aqu	` ,
Inundation Visible on Aerial In		` '	,	FAC-Neutra	, ,
Water-Stained Leaves (B9)	3 , (,			=	moss (D8) (LRR T, U)
Field Observations:					
Surface Water Present? Ye	s No X	Depth (inches):			
	es No X				
	es No _X	Depth (inches):	W	etland Hydrology Prese	nt? Yes No X
(includes capillary fringe) Describe Recorded Data (stream of the control of the	gauge, monitoring we	ell, aerial photos, pre	vious inspections	s), if available:	
Remarks:					

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

	mes of pl	ants.		Sampling Point: noa005
30		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30) 1. Quercus phellos	<u>% Cover</u> 10	Species? Y	Status FACW	Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
2.	- —		-	That Are OBL, FACW, or FAC: $\frac{1}{}$ (A)
3.				Total Number of Dominant Species Across All Strata: 3 (B)
4				
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 0.33333 (A/B)
S				(142)
7.				Prevalence Index worksheet:
3				Total % Cover of: Multiply by:
	4.0	= Total Cov	er	OBL species $\frac{0}{10}$ $x = \frac{0}{30}$
50% of total cover: 5	20% of	total cover:	2	FACW species $\frac{10}{0}$ $x = \frac{20}{0}$
Sapling/Shrub Stratum (Plot size: 15)				x 3 = <u>-</u> x 3 = <u>-</u>
Elaeagnus umbellata	40	Υ	UPL	1 A00 species
	30	N	FACU	OFL Species X 5 =
3				Column Totals: <u>105</u> (A) <u>440</u> (B)
l				Prevalence Index = $B/A = 4.19$
5				Hydrophytic Vegetation Indicators:
S				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
3				3 - Prevalence Index is ≤3.0 ¹
		= Total Cov		Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: 35	20% of	total cover	14	
Herb Stratum (Plot size: 5)	0.5	V	FAOLI	¹ Indicators of hydric soil and wetland hydrology must
1. Schedonorus pratensis		<u>Y</u>	FACU	be present, unless disturbed or problematic.
2.				Definitions of Four Vegetation Strata:
3				Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of height.
5				
5				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
7				than 3 iii. DDi i and greater than 3.20 it (1 iii) taii.
3				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
9				or size, and woody plants less than 3.20 it tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12		= Total Cov	or.	
50% of total cover: 12.5				
Noody Vine Stratum (Plot size: 15)	20 /6 01	total cover.	· ——	
None				
. Notice				
3.				
				Lludvanhutia
		- Total Cov	er	Hydrophytic
				Vegetation Present? Yes No X
4 5				

SOIL Sampling Point: noa005

Profile Desc	cription: (Describe	to the depth	needed to docui	nent the i	ndicator	or confirm	the absence of	of indicators.)
Depth	Matrix			x Feature		. 2	_	
(inches)	Color (moist)	<u>%</u> _	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-16	10YR 4/4	100					SiltLoam	
								_
		· — — —						
		· — — –						
1Type: C-C	oncentration, D=Dep	letion PM-P	educed Matrix M	S-Macked	I Sand Gr	aine	² l ocation:	PL=Pore Lining, M=Matrix.
	Indicators: (Applic					allis.		for Problematic Hydric Soils ³ :
Histosol			Polyvalue Be			DD S T II	_	uck (A9) (LRR O)
	pipedon (A2)		Thin Dark Su					uck (A10) (LRR S)
· =	istic (A3)		Loamy Muck					ed Vertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)		Loamy Gleye	-	. , .	. •,		ont Floodplain Soils (F19) (LRR P, S, T)
	d Layers (A5)		Depleted Ma		. –,			lous Bright Loamy Soils (F20)
	Bodies (A6) (LRR P	, T, U)	Redox Dark		6)			A 153B)
= -	ucky Mineral (A7) (LF		Depleted Da	rk Surface	(F7)			rent Material (TF2)
Muck Pi	resence (A8) (LRR U)	Redox Depre	essions (F	8)			nallow Dark Surface (TF12)
1 cm Mι	uck (A9) (LRR P, T)		Marl (F10) (L	.RR U)			U Other (E	Explain in Remarks)
Deplete	d Below Dark Surface	e (A11)	Depleted Oc	hric (F11)	(MLRA 1	51)		
I ==	ark Surface (A12)		Iron-Mangan					ators of hydrophytic vegetation and
	rairie Redox (A16) (N		_			, U)		and hydrology must be present,
	Mucky Mineral (S1) (L	RR O, S)	Delta Ochric					ss disturbed or problematic.
	Gleyed Matrix (S4)		Reduced Ve					
	Redox (S5)		Piedmont Flo					450D)
	Matrix (S6)	T 11)	Anomalous E	Bright Loar	my Soils (F20) (MLR	A 149A, 153C,	153D)
	rface (S7) (LRR P, S						T	
Type:	Layer (ii observed).							
Depth (in	chee).						Hydric Soil I	Present? Yes No X
Remarks:	CHE3).		<u> </u>				Tryunc 30111	resent: resNo
Remarks: S	mall denression	on near r	oad side wit	h hous	ehold	debris	trash nied	ces of concrete/asphalt,
								rea includes autumn olive,
		•				_		
W	nich is an indi	cator of a	a disturbed a	area ar	ia aoe	sn't nav	e a wetiar	nd indicator status.

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DEPARTMENT OF THE ARMY US ARMY CORPS OF ENGINEERS NORFOLK DISTRICT FORT NORFOLK 803 FRONT STREET NORFOLK VA 23510-1011



June 23, 2021

NOTIFICATION OF APPROVED JURISDICTIONAL DETERMINATION

Eastern Virginia Regulatory Section NAO-2021-01006

Requestor: Mr. Robert (Bob) Bisha Address: 120 Tredegar Street

Richmond, Virginia 23219

Property Owner (if different from Requestor): Commanding Officer, Naval Air Station Oceana, Address: c/o Blake Waller, Department of the Navy, Naval Air Station Oceana, 1750 Tomcat BLVD, Virginia Beach, VA 23460

PROPERTY/PROJECT/EVALUATION AREA INFORMATION

Size (acres): 42 Town/County: Virginia Beach
Nearest Waterway: Owls Creek Latitude: 36.81776
USGS HUC: 02040304 Longitude: -76.005599

Location Description: 42 acre farm field south of Bells Mill Road, East of Oceana Blvd in

Virginia Beach.

Jurisdictional Wetlands (acres): 0

Jurisdictional Streams (linear feet): 0

A. DETERMINATION

On April 13, 2021, the U.S. Army Corps of Engineers (Corps) received your request for an approved jurisdictional determination for the above-described area. Based upon an office (desktop) evaluation, 33 CFR 329 - Definition of Navigable Waters of the United States, and 33 CFR 328 - Definition of Waters of the United States and federal regulations of navigable waters, the Corps determines:

The above-described area is comprised entirely of uplands. The Corps did not identify any waters regulated under Section 404 of the Clean Water Act (33 U.S.C. 1344), or Section 10 of the Rivers and Harbors Act (33 U.S.C. 403).

The delineation included herein has been conducted to identify the location and extent of the water boundaries and the jurisdictional status of the waters for purposes of the CWA and RHA for the above-described area identified in this request.

This delineation and jurisdictional determination may not be valid for the Wetland Conservation Provisions of the Food Security Act of 1985, as amended. Therefore, if you or your tenant are US Department of Agriculture (USDA) program participants, or anticipate participation in USDA programs, you should discuss the applicability of a certified wetland determination with the local USDA service center, prior to starting work.

B. <u>ADMINISTRATIVE APPEALS INFORMATION</u>

This notification constitutes an approved jurisdictional determination for the above-described area. If you object to this determination, you may request an administrative appeal under the Corps regulations (33 CFR Part 331). Please find the enclosed Notification of Appeal Options and Process (NAP) and Request for Appeal (RFA). If you request to appeal this determination, you must submit a completed RFA to the following address:

Attn: Ms. Naomi J. Handell, Regulatory Program Manager United States Army Corps of Engineers CENAD-PD-OR Fort Hamilton Military Community 301 General Lee Avenue Brooklyn, New York 11252-6700

The Corps will determine whether the RFA is complete and meets the criteria for appeal under 33 CFR 331.5. The RFA must be received at the above address within 60 days of the NAP, and by August 23, 2021. The Corps will not accept incomplete or late RFAs. You do not need to submit an RFA if you do not object to the approved jurisdictional determination.

C. EXPIRATION DATE

This approved jurisdictional determination is valid for five years from the date of this notification unless new information warrants revision prior to the expiration date.

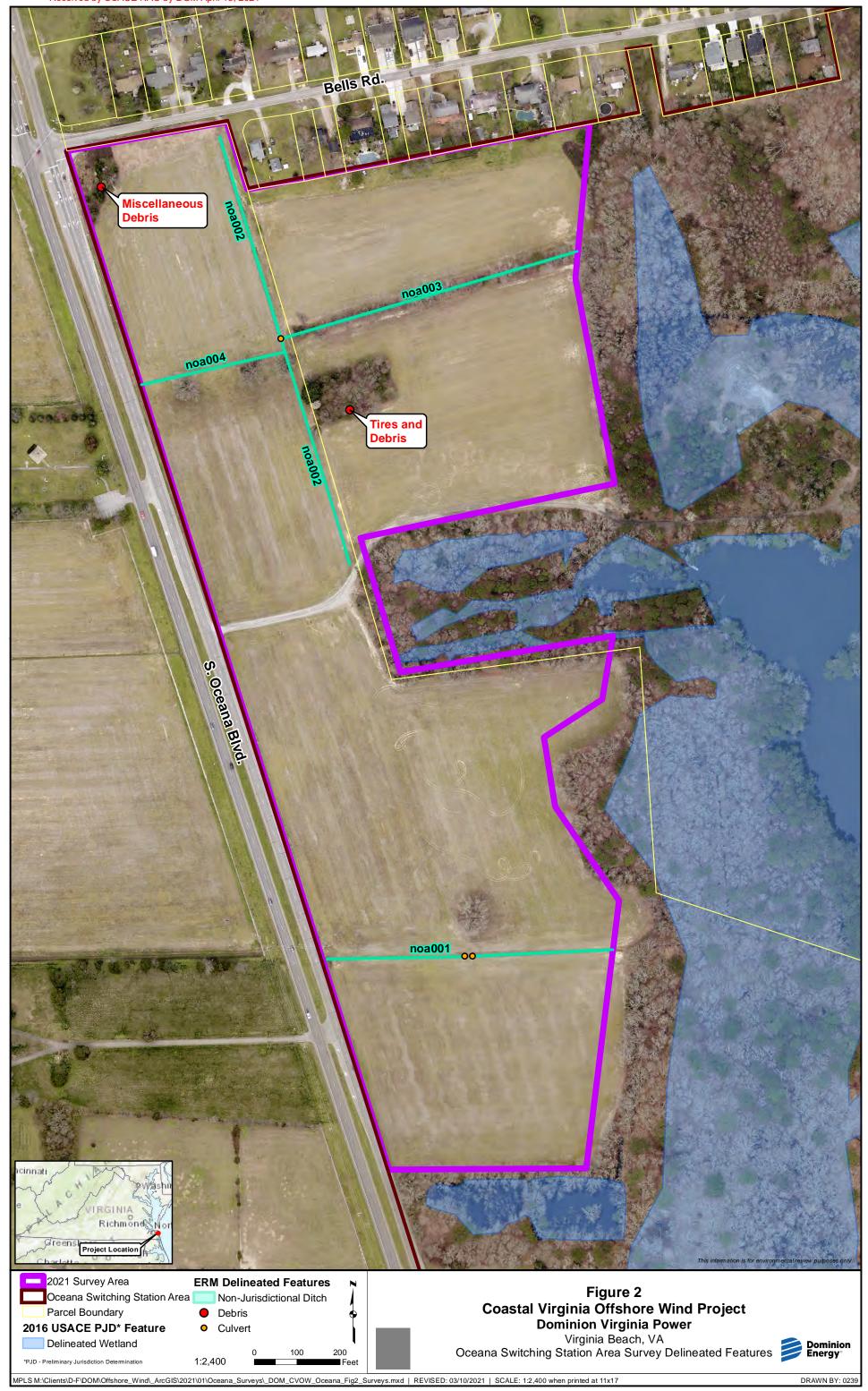
If you have any questions regarding this notification, please contact Brian Denson via telephone at (757) 201-7792 or via email at Brian.C.Denson@usace.army.mil.

Brian Denson

Environmental Scientist

Norfolk District Regulatory Branch

Enclosure(s): Map of review area, Administrative Appeals Form, AJD Form





U.S. ARMY CORPS OF ENGINEERS REGULATORY PROGRAM APPROVED JURISDICTIONAL DETERMINATION FORM (INTERIM) NAVIGABLE WATERS PROTECTION RULE

I. ADMINISTRATIVE INFORMATION

Completion Date of Approved Jurisdictional Determination (AJD): 23-JUN-2021

ORM Number: NAO-2021-01006

Associated JDs: N/A or ORM numbers and identifiers (e.g. HQS-2020-00001-MSW-MITSITE)

Review Area Location¹:

State/Territory: VA City: County/Parish/Borough: Virginia Beach city Center Coordinates of Review Area: Latitude 36.81776 Longitude -76.005599

Ι. Δ .	the correspond The revie including of non hy growing s There are	ing sections/t w area is com wetlands, of a dric soils, incl season and th e "navigable w	ables and summarize of aprised entirely of dry land the entire resulting the ditch bottoms e vegetation onsite is creaters of the United Sta	and (i.e., there are no waters or water features, view area). Rationale: Site is comprised entirely s. There is no evidence of hydrology during the ominated by non-hydrophytic species. tes" within Rivers and Harbors Act jurisdiction	
В.	☐ There are area (con ☐ There are area (con	e "waters of th nplete approp waters or wa nplete table in	riate tables in section I	Clean Water Act jurisdiction within the review .C). rom Clean Water Act jurisdiction within the revie	٧
		§ 10 Size	§ 10 Criteria	Rationale for § 10 Determination	l
	§ 10 Name				

(a)(1) Name	(a)(1) Size	(a)(1) Criteria	Rationale for (a)(1) Determination
N/A	N/A	N/A	N/A

Tributaries ((a)(2) waters):

-	((-)/			
	(a)(2) Name	(a)(2) Size	(a)(2) Criteria	Rationale for (a)(2) Determination
	N/A	N/A	N/A	N/A

Lakes and ponds, and impoundments of jurisdictional waters ((a)(3) waters):

	, ,	J	(()(-)
(a)(3) Name	(a)(3) Size	(a)(3) Criteria	Rationale for (a)(3) Determination
N/A	N/A	N/A	N/A

Adjacent wetlands ((a)(4) waters):

¹ Map(s)/Figure(s) are attached to the AJD provided to the requestor.

² If the navigable water is not subject to the ebb and flow of the tide or included on the District's list of Rivers and Harbors Act Section 10 navigable waters list, do NOT use this document to make the determination. The District must continue to follow the procedure outlined in 33 CFR part 329.14 to make a Rivers and Harbors Act Section 10 navigability determination.

³ A stand-alone TNW determination is completed independently of a request for an AJD. A stand-alone TNW determination is conducted for a specific segment of river or stream or other type of waterbody, such as a lake, where independent upstream or downstream limits or lake borders are established. A stand-alone TNW determination should be completed following applicable guidance and should NOT be documented on the AJD form. ⁴ Some excluded waters, such as (b)(2) and (b)(4), may not be specifically identified on the AJD form unless a requestor specifically asks a Corps district to do so. Corps Districts may, in case-by-case instances, choose to identify some or all of these waters within the review area.

⁵ Because of the broad nature of the (b)(1) exclusion and in an effort to collect data on specific types of waters that would be covered by the (b)(1) exclusion, four sub-categories of (b)(1) exclusions were administratively created for the purposes of the AJD Form. These four sub-categories are not new exclusions, but are simply administrative distinctions and remain (b)(1) exclusions as defined by the NWPR.



U.S. ARMY CORPS OF ENGINEERS REGULATORY PROGRAM APPROVED JURISDICTIONAL DETERMINATION FORM (INTERIM) NAVIGABLE WATERS PROTECTION RULE

(a)(4) Name	(a)(4) Size	(a)(4) Criteria	Rationale for (a)(4) Determination
N/A	N/A	N/A	N/A

D. Excluded Waters or Features

Excluded waters $((b)(1) - (b)(12))^4$:

Exclusion Name	Exclusion Size	Exclusion ⁵	Rationale for Exclusion Determination
N/A	N/A	N/A	N/A

III. SUPPORTING INFORMATION

- **A. Select/enter all resources** that were used to aid in this determination and attach data/maps to this document and/or references/citations in the administrative record, as appropriate.
 - **_X**_ Information submitted by, or on behalf of, the applicant/consultant: "Figure 2, Coastal Virginia
 - Offshore Wind Project, Dominion Virginia Power, Virginia Beach, VA, Oceana Switching Station Area Survey Delineated Features" dated REVISED: 03/10/2021.

This information is sufficient for purposes of this AJD.

Rationale: N/A

Data sheets prepared by the Corps: Title(s) and/or date(s).

X Photographs: Google Earth, VGIN, Onsite photos taken by consultant

Corps Site visit(s) conducted on: Date(s).

__X Previous Jurisdictional Determinations (AJDs or PJDs): NAO-2008-2946, May 11, 2016

X Antecedent Precipitation Tool: provide detailed discussion in Section III.B.

X USDA NRCS Soil Survey: *Title(s) and/or date(s).*

 \bar{X} USFWS NWI maps: *Title(s) and/or date(s).*

X USGS topographic maps: Title(s) and/or date(s).

Other data sources used to aid in this determination:

Data Source (select)	Name and/or date and other relevant information
USGS Sources	N/A.
USDA Sources	N/A.
NOAA Sources	N/A.
USACE Sources	N/A.
State/Local/Tribal Sources	N/A.
Other Sources	N/A.

¹ Map(s)/Figure(s) are attached to the AJD provided to the requestor.

² If the navigable water is not subject to the ebb and flow of the tide or included on the District's list of Rivers and Harbors Act Section 10 navigable waters list, do NOT use this document to make the determination. The District must continue to follow the procedure outlined in 33 CFR part 329.14 to make a Rivers and Harbors Act Section 10 navigability determination.

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⁵ Because of the broad nature of the (b)(1) exclusion and in an effort to collect data on specific types of waters that would be covered by the (b)(1) exclusion, four sub-categories of (b)(1) exclusions were administratively created for the purposes of the AJD Form. These four sub-categories are not new exclusions, but are simply administrative distinctions and remain (b)(1) exclusions as defined by the NWPR.



U.S. ARMY CORPS OF ENGINEERS REGULATORY PROGRAM APPROVED JURISDICTIONAL DETERMINATION FORM (INTERIM) NAVIGABLE WATERS PROTECTION RULE

- **B.** Typical year assessment(s): The APT tool shows the area was wetter than normal during data collection. During this period of wetter than normal, the site showed no indicators of hydrology.
- **C.** Additional comments to support AJD: Site is comprised entirely of non hydric soils, including the ditch bottoms. There is no evidence of hydrology during the growing season and the vegetation onsite is dominated by non hydrophytic species.

¹ Map(s)/Figure(s) are attached to the AJD provided to the requestor.

² If the navigable water is not subject to the ebb and flow of the tide or included on the District's list of Rivers and Harbors Act Section 10 navigable waters list, do NOT use this document to make the determination. The District must continue to follow the procedure outlined in 33 CFR part 329.14 to make a Rivers and Harbors Act Section 10 navigability determination.

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NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Bob Bi	sha, Dominion Energy Services	File Number: NAO-2021-1006	Date: 6/23/2021
Attached is:			See Section below
INITIAL P	ROFFERED PERMIT (Standard Per	rmit or Letter of permission)	A
PROFFERI	В		
PERMIT D	С		
X APPROVE	D JURISDICTIONAL DETERMIN	ATION	D
PRELIMIN	ARY JURISDICTIONAL DETERM	MINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at

http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/appeals.aspx or Corps regulations at 33 CFR Part 331.

- A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.
- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.
- B: PROFFERED PERMIT: You may accept or appeal the permit
- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.
- C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.
- D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.
- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.
- E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTION	ONS TO AN INITIAL PRO	FFERED PERMIT
REASONS FOR APPEAL OR OBJECTIONS: (Describe	e your reasons for appealing the d	ecision or your objections to an
initial proffered permit in clear concise statements. You may attack		
or objections are addressed in the administrative record.)		
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A PRITIONIAL INTEGRALATION. The appeal is limited to a review	file - Indicateding record the	Commenter for the
ADDITIONAL INFORMATION: The appeal is limited to a review record of the appeal conference or meeting, and any supplemental is		
clarify the administrative record. Neither the appellant nor the Cor		
you may provide additional information to clarify the location of in		
POINT OF CONTACT FOR QUESTIONS OR INFOR	·	Illinistrative record.
If you have questions regarding this decision and/or the appeal	If you only have questions regard	ding the anneal process voll may
process you may contact:	also contact:	allig the appear process you may
process you may contact.	Ms. Naomi J. Handell	!
	Regulatory Program Manager (CEN	AD-PD-OR)
·	U.S. Army Corps of Engineers	l
·	Fort Hamilton Military Community 301 General Lee Avenue	!
·	Brooklyn, New York 11252-6700	!
·	Telephone number: (917) 789-4841	!
	Naomi.J.Handell@usace.army.m	
RIGHT OF ENTRY: Your signature below grants the right of entr		
consultants, to conduct investigations of the project site during the		a will be provided a 15 day
notice of any site investigation, and will have the opportunity to pa		•
· ·	Date:	Telephone number:
	1	1
Signature of appellant or agent.	l	



Corporate Headquarters 5020 Montrose Blvd. Suite 650 Houston, TX 77006 Main: 713.520.5400

Waters of the U.S. Delineation for Bedford Solar Center Chesapeake County, Virginia

Prepared for: Coronal Energy 321 E Main St #300 Charlottesville, VA 22902

For Use/Review by: U.S. Army Corps of Engineers

Prepared by:
RES
1408 Roseneath Road, Suite B
Richmond, VA 23230

May 2018

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Figure 1 Vicinity Map

Figure 2 Project Location Map

Figure 3 National Wetland Inventory Map

Figure 4 Aerial Imagery

Figure 5 Soils Map

Appendix B: Cowardin System of Wetlands and Deepwater Water Habitat Classification

Appendix C: Wetland Delineation Data Sheets

Appendix D: Waters of the U.S. Delineation Map

Project Summary Sheet for USACE Confirmation Site Visit

General Information

Project/Site Name	Bedford Solar Center
Applicant/Owner	Coronal Energy 321 E Main St #300 Charlottesville, VA 22902
Authorized Agent	RES 1408 Roseneath Road, Suite B Richmond, Virginia 23230 Attn: Rick Atkinson, Mike Molnar
Project/Site Size	565.70 +/- acres
Parcel I.D.	GPIN 0620000000120 062000000100 062000000040 0620000000090 0620000000090

Project Location

Locality	Chesapeake County, Virginia
USGS Quad. Map(s)	Fentress (VA)
Approx. Latitude	36.6952
Approx. Longitude	-76.1683
Approx. Elevation	10' - 22' msl
Nearest Tributary	Pocaty River
HUC Code	03010205 (Albemarle)

Location Description

The approximate 565.70-acre project area is in eastern Chesapeake County roughly 2.1 miles from the area known as Albemarle Acers. The intersection of Blue Ridge Road and Bedford Street is located within the project area, with Blue Ridge Road transecting the project. Refer to the Vicinity map in Appendix A, Figure 1.

Inventory

Classification	Linear Feet (LF)	Square Feet (SF)	Acres (Ac)
Streams	8,780	89,733.6	2.06
Relatively Permanent Waters (RPW)	18,055	72,745.2	1.67
Palustrine Forested Wetland (PFO)	N/A	243,936	5.60
Palustrine Emergent Wetland (PEM)	N/A	37,461.6	0.86

Inventory calculations are based off survey data provided by RES.

Project Report

Executive Summary

RES completed a Waters of the U.S. Delineation on May 10, 2018 in accordance with the *Corps of Engineers' Wetlands Delineation Manual* (U.S. Army Corps of Engineers, 1987), herein referred to as the 1987 Manual, to identify those areas that are most likely within the regulatory purview of the U.S. Army Corps of Engineers (USACE). Based on the on-site field investigation of the approximately 565.70-acre project area, RES has identified potential jurisdictional waters of the U.S. consisting of 8,780 +/- linear feet of streams, 18,055 +/- linear feet of relatively permanent waters, 5.60-acres of palustrine forested wetlands, and 0.86-acres of palustrine emergent wetlands.

Methodology

RES conducted the *Routine Determination for Areas Larger than Five Acres*, as described in the 1987 Manual, which follows a three-parameter approach to identifying wetlands based on the presence of hydrophytic vegetation, hydric soils, and wetland hydrology. All three parameters must be present for an area to be considered a jurisdictional wetland in accordance with Section 404 of the Clean Water Act. The specific procedures and criteria for determining the presence or absence of these parameters are presented in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region Version 2.0*, herein referred to as the AGCP Regional Supplement. Other WOUS are identified based on the presence of a high tide line or an ordinary high water mark (OHWM), pursuant to the definition of "waters of the U.S." under Title 33 Code of Federal Regulation Part 328. RES additionally assesses geomorphologic, hydrologic, and biological factors when identifying other WOUS.

Wetlands and other WOUS found on-site are classified according to the Cowardin system, as described in *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al., 1979). This is a hierarchical classification system used to organize and describe wetlands and deepwater habitats according to hydrologic, geomorphologic, chemical, and biological factors, and provides uniformity of concepts and terms to define these areas. A table that describes the Cowardin Classification System is provided in Appendix B.

Analysis

Resource Review:

Prior to the field investigation, RES performed a preliminary evaluation of the project area by obtaining and reviewing available natural resource information included in Appendix A; Fentress (VA) U.S. Geological Survey (USGS) quadrangle map (Figure 2), the U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) Map (Figure 3), aerial imagery of the project area (Figure 4), information from the U.S. Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) soil survey (Figure 5), and any available Geographic Information System (GIS) data.

According to the USGS Quadrangle Map provided with this report, no stream channel exists on-site but several of the agricultural ditches within the project limits are mapped on the National Wetland Inventory Map. The NRCS Soil Survey Information provided shows the project area to be entirely underlain by either hydric soils or soils that are known to contain hydric inclusions. Analysis of this information suggests that it is highly likely that stream and/or wetland resources exist within the project area. Accordingly, our offsite natural resource evaluation was corroborated with an on-site inspection to characterize vegetation, soils, and hydrology, and to define the boundaries of any potential WOUS, including wetlands, that may be present within the project limits.

Overall Site Conditions:

Topography on-site is associated with the headwater drainage network of Pocaty River, a tributary to North Landing River (Figure 4). The project area was previously used for agriculture and contains fallow fields and many large drainage ditches which drain into the Pocaty River. Bedford Street and Blue Ridge Road both transect the project area. The vegetative community for the project area is characterized as fallow field. Representative data for the project area was collected and is available for reference in Appendix C.

Vegetation:

Using the most recent available aerial imagery, a preliminary characterization of the vegetation communities was performed for the project area. Additional data was collected during the on-site investigation to verify the aerial extent and species composition within these communities. The wetland indicator status for each species was determined from *The 2016 National Wetland Plant List, version 3.3* (U.S. Army Corps of Engineers, 2016). The indicator status of a species indicates the probability that the species will occur in a wetland of the United States, which is defined in Table 1 below.

Table 1: Plant Indicator Status as per the 2016 National Plant List

Plant Indicator Category	Indicator Symbol	Definition
Obligate Wetland	OBL	Almost always occur in wetlands.
Facultative Wetland	FACW	Usually occur in wetlands, but may occur in non-wetlands.
Facultative	FAC	Occur in wetlands and non-wetlands
Facultative Upland	FACU	Usually occur in non-wetlands, but may occur in wetlands.
Obligate Upland	UPL	Almost never occur in wetlands.

The vegetative community for the project area is best characterized as a fallow field.

Soils:

A hydric soil is defined as "a soil 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, July 13, 1994). Indicators of hydric soil conditions are predominantly formed by the reduction, translocation, and accumulation of iron or manganese, the reduction of sulfate, and/or the accumulation of organic material. The criteria used to identify hydric soils outlined in the AGCP Regional Supplement follow the NRCS *Field Indicators of Hydric Soils in the United States* (NRCS, 2016) and are primarily focused on the evaluation of the presence of organic material (e.g., muck or peat) or redoximorphic features (e.g., iron/manganese concentrations or depletions) within the soil profile.

In addition to soils mapping, the NRCS also publishes a national hydric soils list. Some state or county NRCS offices, or other local government entities, also produce local hydric soils lists, which when available, are preferred since they are typically more current and reflective of local variations in soil properties. Analysis of the available soils information shows that the entirety of the project area is underlain by either hydric soils or soils know to contain hydric inclusions (see the *Soils Map* included as Figure 5). All of the potential jurisdictional WOUS identified as part of this investigation are located in areas underlain by either soils that contain hydric inclusions or soils that are considered to be hydric.

Table 2 provides a summary of pertinent data for the soil units mapped on the project site.

Map Unit Symbol	Map Unit Name	Soil Series	Component % of Map Unit	Taxonomic Subgroup	Drainage Class	Hydric Status
1	Acredale silt loam	Acredale	90	Typic Endoaqualf	Poorly drained	Yes
15	Deloss mucky fine sandy loam	Deloss	85	Typic Umbraquults	Very poorly drained	Yes
		Deloss	35	Typic Umbraquults	Very poorly drained	Yes
16	Deloss-Tomotley- Nimmo complex	Tomotley	30	Typic Endoaquults	Poorly drained	Yes
		Nimmo	25	Typic Endoaquults	Poorly drained	Yes
23	Gertie silt loam	Gertie	80	Typic Endoaquults	Poorly drained	Yes

43	Tomotley-Deloss	Tomotley	55	Typic Endoaquults	Poorly drained	Yes
complex	Deloss	40	Typic Umbraquults	Very poorly drained	Yes	
45 Tomotley-Nimmo complex	Tomotley	78	Typic Endoaquults	Poorly drained	Yes	
	complex	Nimmo	20	Typic Endoaquults	Poorly drained	Yes
Dragston-Tomotle 20 complex	Dragston-Tomotley	Dragston	70	Aeric Endoaquults	Somewhat poorly drained	No
	complex	Tomotley	25	Typic Endoaquults	Poorly drained	Yes
25	Munden fine sandy loam	Muden	90	Aquic Hapludults	Moderaly well drained	No
42 Tomotley-Bertie complex	Tomtley	60	Typic Endoaquults	Poorly drained	Yes	
	•	Bertie	35	Aeric Endoaquults	Somewhat poorly drained	No

During the field investigation, soil cores were taken to a depth of 18 inches to describe soil morphological characteristics in the upper part, also known as the solum. Soil characteristics including texture and color (hue, value, and chroma) were inspected for each sample. *Munsell Soil Color Charts* were used for determining the soil color. These results can be found within the Wetland Delineation Data Sheets (Appendix C).

Hydrology:

Indicators of wetland hydrology are used in conjunction with hydric soils and hydrophytic vegetation indicators to define the limits of wetlands according to the 1987 Manual and the Atlantic Gulf Coastal Plain (AGCP) Regional Supplement. However, while indicators of hydrophytic vegetation and hydric soils typically provide evidence that soil saturation or inundation has occurred with a frequency and duration sufficient to develop hydric soils and a wetland plant community, indicators of wetland hydrology provide evidence that these hydrologic conditions are continuing at that location, and that the hydric soils and hydrophytic vegetation are not reflective of a previous hydrologic regime. The 1987 Manual states that wetland hydrology encompasses all hydrologic characteristics of areas that are periodically inundated or have soils that are saturated to the surface at some time during the growing season. The evaluation of hydrology conditions during the growing season is important, since the hydrology regime present during that time will exert a controlling influence on the plant species present in a particular area.

The AGCP Regional Supplement divides wetland hydrology indicators into four categories; observation of soil saturation/inundation (Group A), evidence of recent inundation (Group B), evidence of recent soil saturation (Group C), and evidence from other site conditions or data (Group D). These indicators are also categorized as primary or secondary indicators, based on the estimated reliability of each within the region. The AGCP Regional Supplement requires the presence of at least one primary or two secondary indicators for the wetland hydrology parameter to be met. Primary hydrologic indicators include visual observation of inundation or soil saturation near the surface, or the presence of water-stained leaves, sediment deposits, algal mats, oxidized rhizospheres along living roots, or drift lines or watermarks on rocks and vegetation. Secondary hydrologic indicators include the presence of drainage patterns or other microtopographic features indicative of frequent saturation/inundation, moss trim lines, crayfish burrows, or a positive FAC-neutral test. Evidence of most of these indicators can be present even during dry periods, and therefore are useful indicators of the presence of wetland hydrology conditions.

Results

During the investigation, potential jurisdictional features are identified on-site and the boundaries are marked using pink wetland delineation tape. A Waters of the U.S. Delineation Map (Appendix D) depicts

the aerial extent of the potential jurisdictional features identified during the investigation. Additionally, data was collected on-site to characterize representative community types within the project limits and has been compiled in the Wetland Delineation Data Sheets. Data point locations can also be viewed on the attached Waters of the U.S. Delineation Map.

Potential Jurisdictional Features:

Potential jurisdictional features identified within the project area during this delineation are associated with the headwater drainage network of Pocaty River, a tributary to North Landing River. Several of the on-site features are agricultural ditches that have different jurisdictional classifications. In total, 10.19 +/- acres of waters of the U.S. exist on the approximately 565.70-acre site. Jurisdictional features identified within the project limits during RES's on-site investigation include 8,780 linear feet of stream channel, 18,055 linear feet of relatively permanent waters, 5.60-acres of palustrine forested wetlands and 0.86-acres of palustrine emergent wetlands.

The streams and relatively permanent waters within the ditches are the primary drainage features located within the project area. These features drained either directly or indirectly into Pocaty River at the southern end of the project area. A forested wetland is located on the western portion of the project site. Soils of this feature exhibited low-chroma of 10YR 5/2 with common 10YR 6/2 depletions in the matrix and few 10YR 5/8 concentrations in the matrix. The thickness and coloration of this layer are enough to meet to requirements for the Depleted Matrix (F3) hydric soil indicator. Vegetation observed was a predominance of FAC or wetter species such as; *Carpinus caroliniana* (ironwood), *Acer rubrum* (red maple), and *Quercus michauxii* (swamp chestnut oak). No hydrology was recorded.

For detailed information please refer to the Wetland Delineation Data Sheets in Appendix C and Waters of the U. S. Delineation Map in Appendix D.

Table 3 summarizes the data points that were collected during the field investigation:

Table 3: Data Point Summary Table

Data Point	Mapped Soil Unit	Hydrophytic Vegetation	Hydric Soils	Wetland Hydrology	Community ID
DP-1	1	No	No	No	Upland
DP-2	23	No	No	No	Upland
DP-3	16	No	No	No	Upland
DP-4	1	Yes	Yes	Yes	Wetland
DP-5	1	No	No	No	Upland
DP-6	1	No	No	No	Upland
DP-7	42	No	No	No	Upland
DP-8	45	No	No	No	Upland
DP-9	45	Yes	Yes	Yes	Wetland
DP-10	1	No	No	No	Upland

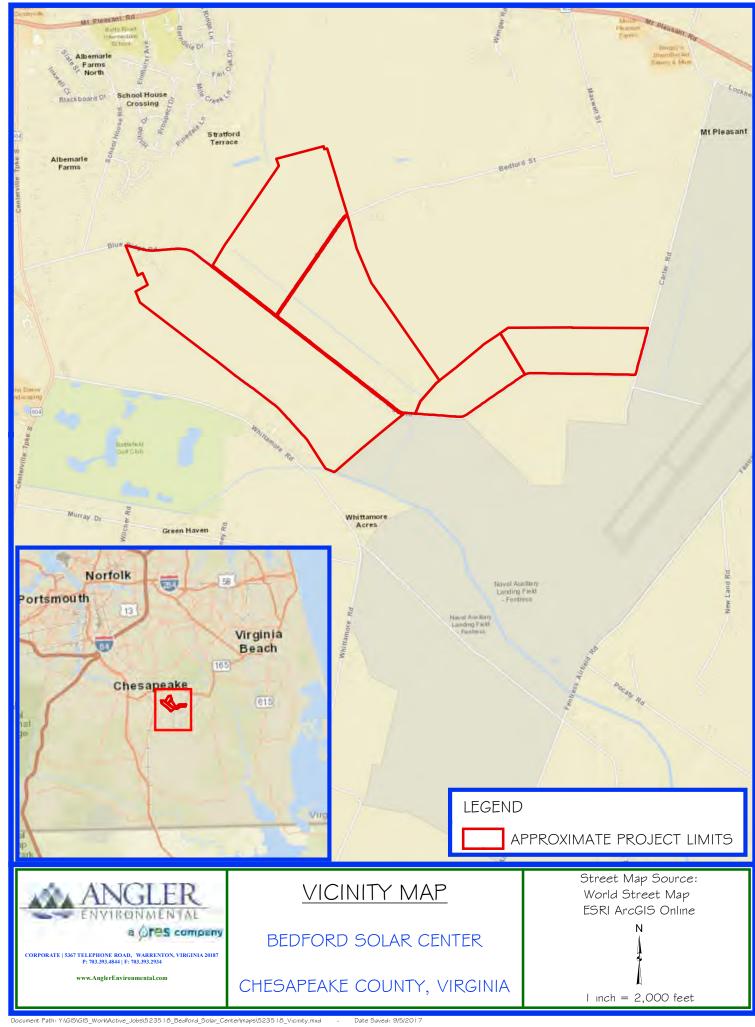
The location of the data points collected are shown on the Waters of the U.S. Delineation Map (Scale: 1" =400'). The data for each point and representative photographs are included in the Wetland Delineation Data Sheets.

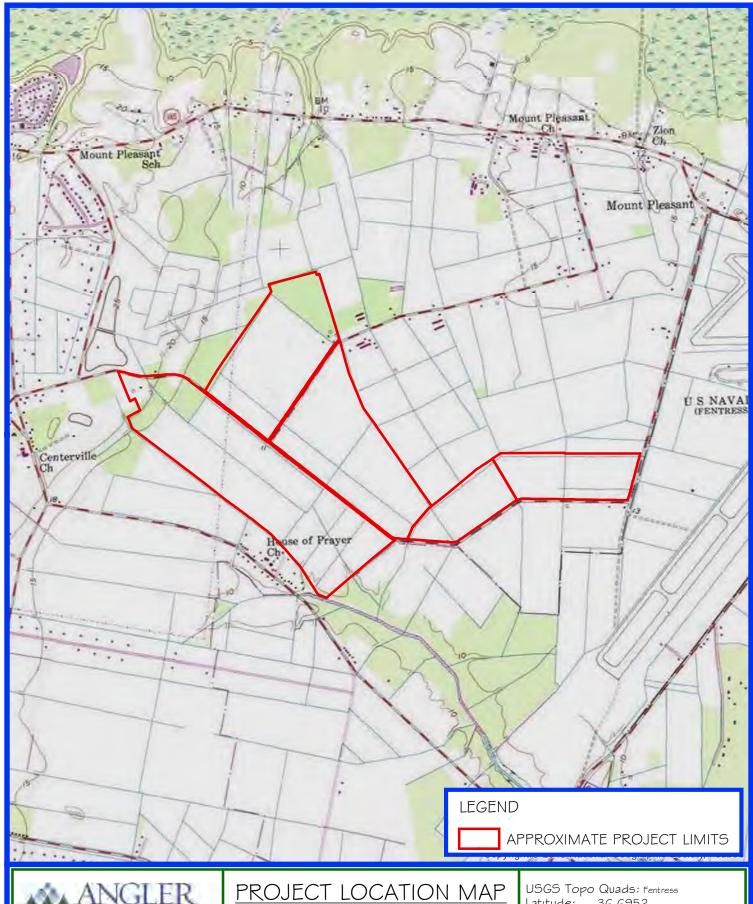
References

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APPENDIX A FIGURES

VICINITY MAP, PROJECT LOCATION MAP,
NATIONAL WETLAND INVENTORY MAP, AERIAL IMAGERY, SOILS MAP







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BEDFORD SOLAR CENTER

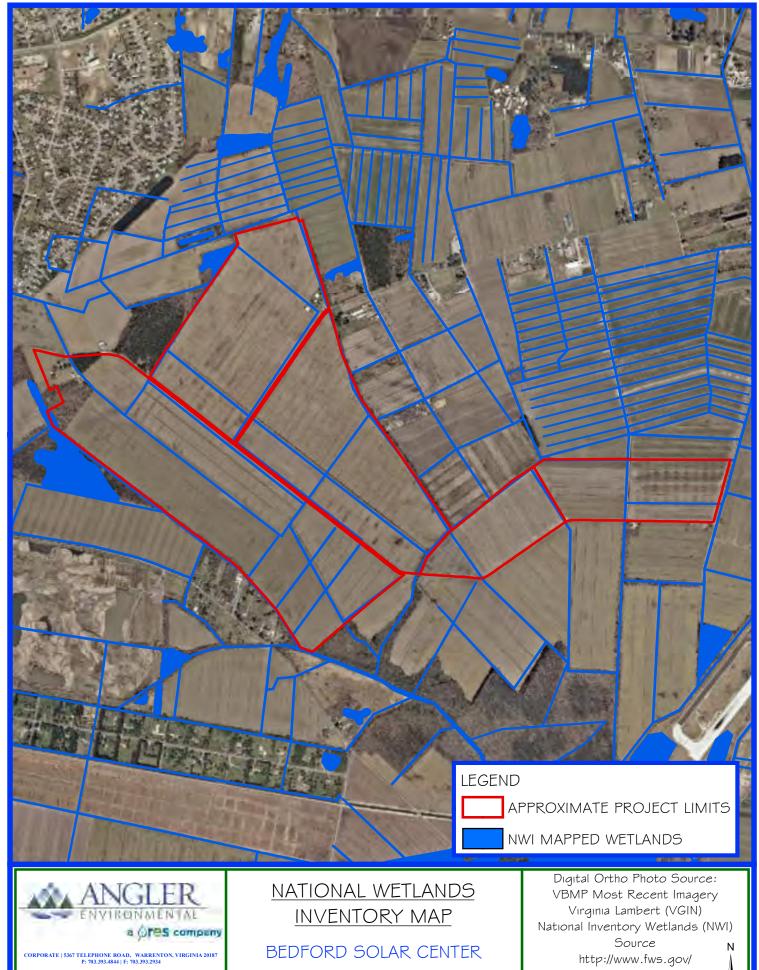
CHESAPEAKE COUNTY, VIRGINIA

Latitude: 36.6952 Longitude: -76.1683

Approx. Project Area: 565.70 acres Elevation: 10 - 22 feet

Scale: I inch = 2,000 feet Source: http://resources.arcgis.com/

USA Topo Maps



CHESAPEAKE COUNTY, VIRGINIA

I inch = 1,500 feet

w.AnglerEnvironmental.com





AERIAL IMAGERY

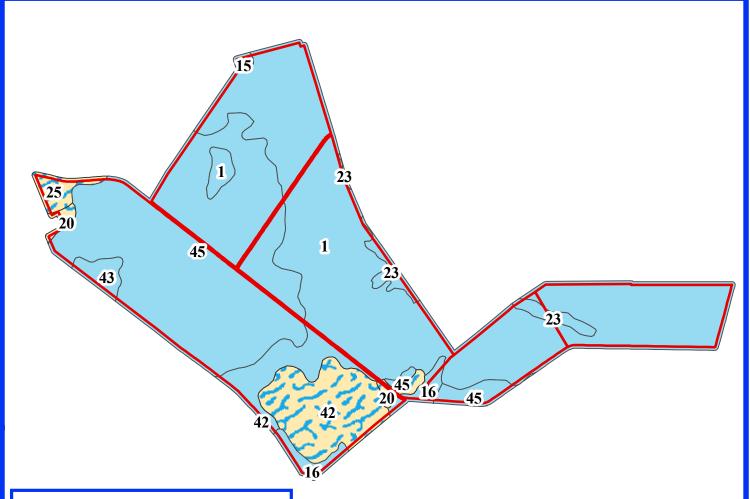
BEDFORD SOLAR CENTER

CHESAPEAKE COUNTY, VIRGINIA

Digital Orthophoto Source: VBMP Most Recent Imagery Virginia Lambert (VGIN)



 $l \cdot mch = 1,500 \cdot feet$



Hydric Soils:

- I Acredale silt loam
- 15 Deloss mucky fine sandy loam
- 16 Deloss-Tomotley-Nimmo complex
- 23 Gertie silt loam
- 43 Tomotley-Deloss complex
- 45 Tomotley-Nımmo complex

Soils with Hydric Inclusions:

- 20 Dragston-Tomotley complex
- 25 Munden fine sandy loam
- 42 Tomotley-Bertie complex

Non-hydric Soils:

NONE

Unknown Soil Type:

LEGEND



APPROXIMATE PROJECT LIMITS HYDRIC SOIL



X SOIL WITH HYDRIC INCLUSIONS

NON-HYDRIC SOIL



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SOILS MAP

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CHESAPEAKE COUNTY, VIRGINIA

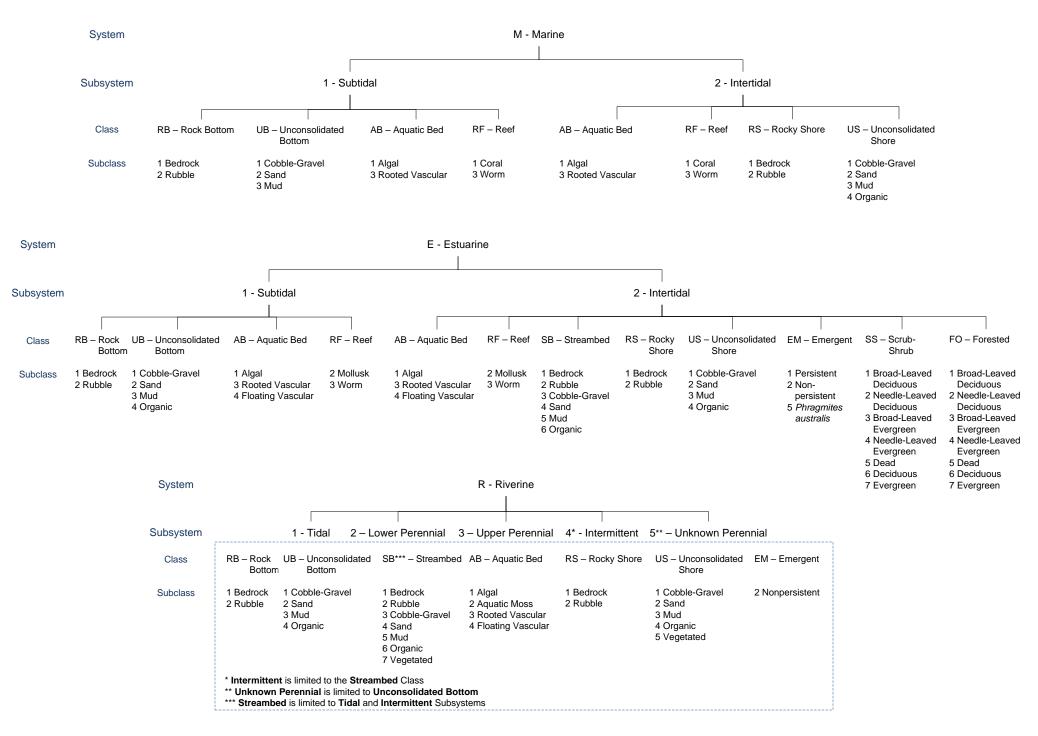
Source:

U.S. Department of Agriculture Natural Resources Conservation Service Soil Survey Geographic (SSURGO)

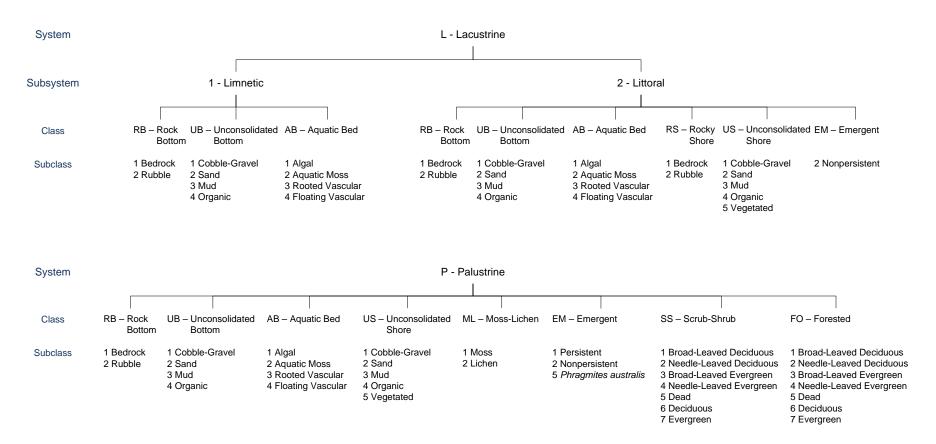
I inch = 1,500 feet

APPENDIX B COWARDIN SYSTEM OF WETLANDS AND DEEPWATER WATER HABITAT CLASSIFICATION

WETLANDS AND DEEPWATER HABITATS CLASSIFICATION



WETLANDS AND DEEPWATER HABITATS CLASSIFICATION



S		quately describe the wetland and deepv applied at the class or lower level in the				tem.	
	Water Regime	9	Special Modifiers	W	ater Chemistr	У	Soil
Nontidal	Saltwater Tidal	Freshwater Tidal		Coastal Halinity	Inland Salinity	pH Modifiers for all Fresh Water	
A Temporarily Flooded	L Subtidal	S Temporarily Flooded-Tidal	b Beaver	1 Hyperhaline	7 Hypersaline	a A cid	g Organic
B Saturated	M Irregularly Exposed	R Seasonally Flooded-Tidal	d Partly Drained/Ditched	2 Euhaline	8 Eusaline	t Circumneutral	n M ineral
C Seasonally Flooded	N Regularly Flooded	T Semipermanently Flooded-Tidal	f Farmed	3 M ixohaline (Brackish)	9 Mixosaline	I A Ikaline	
E Seasonally Flooded/	P Irregularly Flooded	V Permanently Flooded-Tidal	h Diked/Impounded	4 Polyhaline	0 Fresh		
Saturated			r Artificial	5 M esohaline			
F Semipermanently Flooded			s Spoil	6 Oligo haline			
G Intermittently Exposed			x Excavated	0 Fresh			
H Permanently Flooded							
J Intermittently Flooded							
K Artificially Flooded							

APPENDIX C WETLAND DELINEATION DATA SHEETS

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Bedford Solar Center	City/County: Ch	esapeake	Sampling Date: 08-May-18									
Applicant/Owner: Coronal Energy	S	tate: VA	Sampling Point: 1									
Investigator(s): M. Molnar, K. Thomas	Section, Townsh	nip, Range: S	T R									
Landform (hillslope, terrace, etc.): Flat	Local relief (conc	ave, convex, n	one): none Slope: 0.0 % / 0.0 °									
	36.6952		: -76.1683 Datum: NAD83									
	30.0932	Long										
Soil Map Unit Name: 1 - Acredale silt loam NWI classification: Upland Are climatic/hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)												
(2) not explain an include of presents and the explain and the explain an include of pears.												
Are regetation												
Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)												
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.												
Hydrophytic Vegetation Present? Yes No No	T. II. 6											
Hydric Soil Present? Yes ○ No ●	Is the Sa	mpled Area	Yes ○ No ●									
Wetland Hydrology Present? Yes ○ No •	within a	Wetland?	res U NO S									
Remarks: HYDROLOGY												
Wetland Hydrology Indicators:			Secondary Indicators (minimum of 2 required)									
Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Aquatic Fauna (B			Surface Soil Cracks (B6)									
High Water Table (A2) Marl Deposits (B1)			☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10)									
Saturation (A3) Hydrogen Sulfide			Moss Trim Lines (B16)									
	heres along Living Ro	ots (C3)	Dry Season Water Table (C2)									
Sediment Deposits (B2)		,	Crayfish Burrows (C8)									
☐ Drift Deposits (B3) ☐ Recent Iron Redu	uction in Tilled Soils (0	C6)	Saturation Visible on Aerial Imagery (C9)									
☐ Algal Mat or Crust (B4) ☐ Thin Muck Surfac	ce (C7)		Geomorphic Position (D2)									
☐ Iron Deposits (B5) ☐ Other (Explain in	Remarks)		Shallow Aquitard (D3)									
Inundation Visible on Aerial Imagery (B7)			FAC-Neutral Test (D5)									
Water-Stained Leaves (B9)			Sphagnum moss (D8) (LRR T, U)									
Field Observations:												
Surface Water Present? Yes No Depth (inches):												
Water Table Present? Yes O No O Depth (inches):	·											
Saturation Present? (includes capillary fringe) Yes No Depth (inches):	:	Wetland Hydi	ology Present? Yes O No 💿									
Describe Recorded Data (stream gauge, monitoring well, aerial phot	tos, previous inspe	ctions), if avai	able:									

VEGETATION (Five/Four Strata) - Use scientific names of plants. Dominant

Species? Rel.Strat. Indicator Absolute Dominance Test worksheet: Tree Stratum (Plot size: _____) % Cover Status Cover **Number of Dominant Species** 1. _____ 20 **✓** 100.0% That are OBL, FACW, or FAC: 0 (A) 0 0.0% **Total Number of Dominant** Species Across All Strata: (B) 0.0% Percent of dominant Species 0.0% 0.0% (A/B) That Are OBL, FACW, or FAC: 0.0% 0.0% **Prevalence Index worksheet:** ____0 0.0% 8. _____ Total % Cover of: Multiply by: OBL species 50% of Total Cover: 10 20% of Total Cover: 4 20 **= Total Cover** $0 \times 1 = 0$ FACW species 0 x 2 = Sapling or Sapling/Shrub Stratum (Plot size: ____0 x 3 = 1. ________ 0 FAC species 0 0.0% FACU species 0 0.0% <u>0</u> x 5 = -UPL species 0 0.0% Column Totals: 0 (A) 0 (B) 0.0% Prevalence Index = B/A = 0.000 6. _______ 0.0% **Hydrophytic Vegetation Indicators:** 0 7. ______ _ 0.0% 8. _____ 0 1 - Rapid Test for Hydrophytic Vegetation 50% of Total Cover: 0 20% of Total Cover: 0 0 = Total Cover 2 - Dominance Test is > 50% Shrub Stratum (Plot size: _____) \Box 3 - Prevalence Index is ≤3.0 1 _____0 Problematic Hydrophytic Vegetation ¹ (Explain) 0 0.0% 1 Indicators of hydric soil and wetland hydrology must 0.0% be present, unless disturbed or problematic. 0.0% **Definition of Vegetation Strata:** 6. ___ Tree - Woody plants, excluding woody vines, 0 0.0% approximately 20 ft (6 m) or more in height and 3 in. 50% of Total Cover: 0 20% of Total Cover: 0 0 = Total Cover (7.6 cm) or larger in diameter at breast height (DBH). Herb Stratum (Plot size: _____) Sapling - Woody plants, excluding woody vines, 0 approximately 20 ft (6 m) or more in height and less 0 0.0% than 3 in. (7.6 cm) DBH. 0.0% Sapling/Shrub - Woody plants, excluding vines, less 0 0.0% than 3 in. DBH and greater than 3.28 ft (1m) tall. 0.0% 0.0% Shrub - Woody plants, excluding woody vines, 0 0.0% approximately 3 to 20 ft (1 to 6 m) in height. 0 0.0% Herb - All herbaceous (non-woody) plants, including 0.0% herbaceous vines, regardless of size, and woody 0 0.0% plants, except woody vines, less than approximately 3 0 ft (1 m) in height. 0.0% 11.___ 0 12.____ 0.0% Woody vine - All woody vines, regardless of height. 0 _ _ 50% of Total Cover: 0 20% of Total Cover: 0 = Total Cover Woody Vine Stratum (Plot size: _____) 2. _____ 0.0% 0 0.0% 0.0% Hydrophytic 0 0.0% 5. -Vegetation Yes ○ No • 50% of Total Cover: ___0 ___ 20% of Total Cover: ___0 0 = Total Cover Present? Remarks: (If observed, list morphological adaptations below). Managed agricultural field *Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: 1

SOIL Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)											
Depth Matrix		Redox Features					_				
(inches)	Color (moist)	%	Color	moist)	%	Type 1	Loc2	Texture	Remarks	
0-10	10YR	4/1	100						Clay Loam		
10-18	5Y	5/1	95	10YR	5/6	5	С	М	Clay Loam		
									-		
	-			-				-		-	
								-	-		
¹ Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix											
Hydric Soil	Indicators:								Indicators for Prob	lematic Hydric Soils ³ :	
Histosol (A1)			☐ Pol	yvalue Bel	ow Surface	e (S8) (LRR	S, T, U)	1 cm Muck (A9) (LRR O)	
Histic Epi	pedon (A2)			☐ Thin Dark Surface (S9) (LRR S, T, U)			U)	2 cm Muck (A10) (LRR S)			
Black Hist				Loa	Loamy Mucky Mineral (F1) (LRR O)				Reduced Vertic (F18) (outside MLRA 150A,B)		
Hydroger	Sulfide (A4)			Loa	Loamy Gleyed Matrix (F2)				Piedmont Floodplain Soils (F19) (LRR P, S, T)		
Stratified	Layers (A5)			De	pleted Mat	rix (F3)			Anomalous Bright Loamy Soils (F20) (MLRA 153B)		
Organic E	Bodies (A6) (l	LRR P, T, l	J)	Re	Redox Dark Surface (F6)				Red Parent Material (TF2)		
5 cm Muc	cky Mineral (A	47) (LRR P	P, T, U)	☐ De	Depleted Dark Surface (F7)				☐ Very Shallow Dark Surface (TF12)		
☐ Muck Pre	sence (A8) (L	RR U)		Re	Redox Depressions (F8)				Other (Explain in		
1 cm Muc	k (A9) (LRR	P, T)		☐ Ma	rl (F10) (L	RR U)			Outer (Explain in	remandy	
Depleted	Below Dark S	Surface (A	11)	☐ De	pleted Och	ric (F11) (MLRA 151)				
☐ Thick Dar	k Surface (A	12)				ese Masses					
Coast Pra	irie Redox (A	16) (MLR/	4 150A)	Um	bric Surfa	ce (F13) (L	RR P, T, U)			
Sandy Muck Mineral (S1) (LRR O, S)				Delta Ochric (F17) (MLRA 151)				-	2		
Sandy Gleyed Matrix (S4)				Reduced Vertic (F18) (MLRA 150A, 150B)				, 150B)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
Sandy Redox (S5)				Piedmont Floodplain Soils (F19) (MLRA 149A)							
Stripped Matrix (S6) Anomalous Bright Loamy Sc											
☐ Dark Surf	ace (S7) (LR	R P, S, T,	U)	_		J	, (- / (,,		
Restrictive L	ayer (if obs	erved):									
Type:										· · · ·	
Depth (inc	hes):								Hydric Soil Present?	Yes O No O	
Remarks:											



Photo Path: C:\WetformOrig\Bedford Solar\Photos\



Photo File: **P1010910.JPG** Orientation:

-facing

Lat/Long or UTM : Long/Easting: -76.1683

Lat/Northing: 36.6952

Description:



Photo File: P1010911.JPG Orientation: -facing

Lat/Long or UTM: Long/Easting: 0

Lat/Northing: 0

Description:

Project/Site: Bedford Solar Center	City/County: Chesapeake Sampling Date: 08-May-18
Applicant/Owner: Coronal Energy	State: VA Sampling Point: 2
Investigator(s): M. Molnar, K. Thomas	Section, Township, Range: S T R
Landform (hillslope, terrace, etc.): Flat	Local relief (concave, convex, none): none Slope: 0.0 % / 0.0 °
	66.6952 Long.: -76.1683 Datum: NAD83
Soil Map Unit Name: 23 - Gertie silt loam	NWI classification: Upland Yes No (If no, explain in Remarks.)
Are climatic/hydrologic conditions on the site typical for this time of ye	(21 no) explain in termation)
Are Vegetation . , Soil . , or Hydrology . significant	y disturbed? Are "Normal Circumstances" present? Yes Volume No
Are Vegetation , Soil , or Hydrology naturally p	oblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sa	npling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No No	T. H. C I. I. A
Hydric Soil Present? Yes ○ No ●	Is the Sampled Area ishin a Washanda Yes ○ No ●
Wetland Hydrology Present? Yes ○ No ●	within a Wetland? Yes Vo Vo
HYDROLOGY	
Wetland Hydrology Indicators:	Cocondany Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (minimum of 2 required) Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B:	• • • • • • • • • • • • • • • • • • • •
☐ High Water Table (A2) ☐ Marl Deposits (B1	_ ' ' ' ' '
Saturation (A3) Hydrogen Sulfide	
☐ Water Marks (B1) ☐ Oxidized Rhizosph	eres along Living Roots (C3) Dry Season Water Table (C2)
☐ Sediment Deposits (B2) ☐ Presence of Reduce	ed Iron (C4) Crayfish Burrows (C8)
☐ Drift Deposits (B3) ☐ Recent Iron Redu	tion in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	(C7) Geomorphic Position (D2)
☐ Iron Deposits (B5) ☐ Other (Explain in	emarks) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
☐ Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes O No Depth (inches):	Wetland Hydrology Present? Yes ○ No ●
Saturation Present? (includes capillary fringe) Yes No Depth (inches):	Wetland Hydrology Present? Yes ○ No ●
Describe Recorded Data (stream gauge, monitoring well, aerial photographics) Remarks:	s, previous inspections), if available:

Sampling Point: 2 Species? Absolute Rel.Strat. Indicator Dominance Test worksheet: Tree Stratum (Plot size: _____) % Cover Status Cover **Number of Dominant Species** 1. _____ 0 0.0% That are OBL, FACW, or FAC: 0 (A) 0 0.0% **Total Number of Dominant** Species Across All Strata: (B) 0.0% Percent of dominant Species 0.0% 0.0% (A/B) That Are OBL, FACW, or FAC: 0.0% 0.0% **Prevalence Index worksheet:** _____0 8. _____ 0.0% Total % Cover of: Multiply by: 50% of Total Cover: 0 20% of Total Cover: 0 = **Total Cover** OBL species $0 \times 1 = 0$ FACW species 0 x 2 =Sapling or Sapling/Shrub Stratum (Plot size: _____) 0 x 3 =1. ________ 0 FAC species 0 0.0% FACU species 0 0.0% $\frac{0}{}$ x 5 = -UPL species 0 0.0% Column Totals: 0 (A) 0 (B) 0.0% Prevalence Index = B/A = 0.000 6. _______ 0.0% **Hydrophytic Vegetation Indicators:** 0 7. ______ _ 0.0% 8. _____ 0 1 - Rapid Test for Hydrophytic Vegetation 50% of Total Cover: 0 20% of Total Cover: 0 0 = Total Cover 2 - Dominance Test is > 50% Shrub Stratum (Plot size: _____) \Box 3 - Prevalence Index is ≤3.0 1 _____0 Problematic Hydrophytic Vegetation ¹ (Explain) 0 0.0% 1 Indicators of hydric soil and wetland hydrology must 0.0% be present, unless disturbed or problematic. 0.0% **Definition of Vegetation Strata:** 6. ___ Tree - Woody plants, excluding woody vines, 0 0.0% approximately 20 ft (6 m) or more in height and 3 in. 50% of Total Cover: 0 20% of Total Cover: 0 0 = Total Cover (7.6 cm) or larger in diameter at breast height (DBH). Herb Stratum (Plot size: _____) Sapling - Woody plants, excluding woody vines, 0 approximately 20 ft (6 m) or more in height and less 0 0.0% than 3 in. (7.6 cm) DBH. 0.0% Sapling/Shrub - Woody plants, excluding vines, less 0 0.0% than 3 in. DBH and greater than 3.28 ft (1m) tall. 0.0% 0.0% Shrub - Woody plants, excluding woody vines, 0 0.0% approximately 3 to 20 ft (1 to 6 m) in height. 0 0.0% Herb - All herbaceous (non-woody) plants, including 0.0% herbaceous vines, regardless of size, and woody 0 0.0% plants, except woody vines, less than approximately 3 0 ft (1 m) in height. 0.0% 11.___ 0 12.____ 0.0% Woody vine - All woody vines, regardless of height. 0 _ _ 50% of Total Cover: 0 20% of Total Cover: 0 = Total Cover Woody Vine Stratum (Plot size: _____) 2. _____ 0.0% 0 0.0% 0.0% Hydrophytic 0 0.0% 5. -Vegetation Yes ○ No • 50% of Total Cover: ___0 ___ 20% of Total Cover: ___0 0 = Total Cover Present? Remarks: (If observed, list morphological adaptations below). Managed agricultural field *Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Profile Descr	ription: (De	scribe to	the depth	needed to	documen	t the indi	icator or c	onfirm the	e absence of indicators	.)	
Depth		Matrix			Re	dox Featı	ıres		_		
(inches)	Color (moist)	%	Color (moist)	%	Type 1	_Loc2	Texture	Remarks	
0-12	10YR	4/1	100						Fine Sandy Clay		
12-18	2.5Y	5/2	97	10YR	5/8	3	С	М	Fine Sandy Clay		
							_				
	-										
	-										
		=Depletio	n. RM=Red	uced Matrix,	CS=Cover	ed or Coat	ted Sand G	rains ² Lo	cation: PL=Pore Lining. M	=Matrix	
Hydric Soil 1									Indicators for Prol	olematic Hydric Soils ³ :	
Histosol (•						e (S8) (LRR		1 cm Muck (A9)	(LRR O)	
	pedon (A2)						(LRR S, T,		2 cm Muck (A10		
Black Hist							F1) (LRR O)	Reduced Vertic ((F18) (outside MLRA 150A,B)	
l	Sulfide (A4) Layers (A5)					d Matrix (F	2)			plain Soils (F19) (LRR P, S, T)	
	Bodies (A6) (I	RRPTI	I)	'	oleted Mat	rıx (F3) Surface (F6				nt Loamy Soils (F20) (MLRA 153B)	
	ky Mineral (A		-			k Surface (Fo	•		Red Parent Mate	• ,	
	sence (A8) (L		, ., -,			ssions (F8)			☐ Very Shallow Dark Surface (TF12)☐ Other (Explain in Remarks)		
	k (A9) (LRR	-			rl (F10) (Ll	٠,	'		Uther (Explain in	n Remarks)	
Depleted	Below Dark S	Surface (A	11)				MLRA 151)				
☐ Thick Dar	k Surface (A	12)		☐ Iroi	n-Mangane	ese Masses	s (F12) (LR	R O, P, T)			
Coast Pra	irie Redox (A	16) (MLR	4 150A)	Um	bric Surfac	ce (F13) (l	RR P, T, U)			
Sandy Mu	ıck Mineral (S	51) (LRR C), S)	☐ Del	ta Ochric ((F17) (MLF	RA 151)		3		
	eyed Matrix (S4)		Rec	duced Vert	ic (F18) (N	/ILRA 150A	, 150B)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present,		
Sandy Re								ILRA 149A)	unles	s disturbed or problematic.	
	Matrix (S6)			And	omalous Bi	right Loam	y Soils (F2	0) (MLRA 1	49A, 153C, 153D)		
□ Dark Surf	ace (S7) (LR	R P, S, 1,	U)								
									T		
Restrictive L	ayer (if obs	erved):									
Туре:											
Depth (inc	hes):					_			Hydric Soil Present?	Yes No 🖲	
Remarks:											



Photo File: P1010913.JPG Orientation: -facing

Lat/Long or UTM : Long/Easting: -76.1683

Description:

Lat/Northing: 36.6952



Photo File: P1010914.JPG Orientation: -facing

Lat/Long or UTM: Long/Easting: 0

Lat/Northing: 0

Description:

Project/Site: Bedford Solar Center	City/County: Chesapeake	Sampling Date: 08-May-18
Applicant/Owner: Coronal Energy	State: VA	Sampling Point: 3
Investigator(s): M. Molnar, K. Thomas	Section, Township, Range:	S T R
Landform (hillslope, terrace, etc.): Flat	Local relief (concave, conve	x, none): none Slope: 0.0 % / 0.0 °
	-	ong.: -76.1683
	30.0932	
Soil Map Unit Name: 16 - Deloss-Tomotley-Nimmo complex	Yes No	NWI classification: Upland
Are climatic/hydrologic conditions on the site typical for this time of ye	-	(If no, explain in Remarks.)
Are Vegetation . , Soil . , or Hydrology . significant	ly disturbed? Are "Norn	mal Circumstances" present? Yes ♥ No ∪
Are Vegetation , Soil , or Hydrology naturally p	oroblematic? (If neede	d, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sa	mpling point locations,	, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No No	7.11.6	
Hydric Soil Present? Yes ○ No ●	Is the Sampled Area	a Yes ○ No •
Wetland Hydrology Present? Yes ○ No •	within a Wetland?	res Uno S
HYDROLOGY		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)		Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B	13)	Sparsely Vegetated Concave Surface (B8)
☐ High Water Table (A2) ☐ Marl Deposits (B1		Drainage Patterns (B10)
☐ Saturation (A3) ☐ Hydrogen Sulfide	Odor (C1)	Moss Trim Lines (B16)
☐ Water Marks (B1) ☐ Oxidized Rhizospl	neres along Living Roots (C3)	Dry Season Water Table (C2)
Sediment Deposits (B2)	ced Iron (C4)	Crayfish Burrows (C8)
	ction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)
☐ Algal Mat or Crust (B4) ☐ Thin Muck Surfac	e (C7)	Geomorphic Position (D2)
☐ Iron Deposits (B5) ☐ Other (Explain in	Remarks)	Shallow Aquitard (D3)
☐ Inundation Visible on Aerial Imagery (B7)		FAC-Neutral Test (D5)
☐ Water-Stained Leaves (B9)	<u> </u>	☐ Sphagnum moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes No Depth (inches):		
Surface Water Fresche.		
		lydrology Present? Yes O No 💿
Saturation Present? (includes capillary fringe) Yes No Depth (inches):		, ,
Describe Recorded Data (stream gauge, monitoring well, aerial phot	os, previous inspections), ii e	and a second sec

Sampling Point: 3 Species? Absolute Rel.Strat. Indicator Dominance Test worksheet: Tree Stratum (Plot size: _____) % Cover Status Cover **Number of Dominant Species** 1. _____ 0 0.0% That are OBL, FACW, or FAC: 0 (A) 0 0.0% **Total Number of Dominant** Species Across All Strata: (B) 0.0% Percent of dominant Species 0.0% 0.0% (A/B) That Are OBL, FACW, or FAC: 0.0% 0.0% **Prevalence Index worksheet:** _____0 8. _____ 0.0% Total % Cover of: Multiply by: 50% of Total Cover: 0 20% of Total Cover: 0 = **Total Cover** OBL species $0 \times 1 = 0$ FACW species 0 x 2 =Sapling or Sapling/Shrub Stratum (Plot size: _____) 0 x 3 =1. ________ 0 FAC species 0 0.0% FACU species 0 0.0% $\frac{0}{}$ x 5 = -UPL species 0 0.0% Column Totals: 0 (A) 0 (B) 0.0% Prevalence Index = B/A = 0.000 6. _______ 0.0% **Hydrophytic Vegetation Indicators:** 0 7. ______ _ 0.0% 8. _____ 0 1 - Rapid Test for Hydrophytic Vegetation 50% of Total Cover: 0 20% of Total Cover: 0 0 = Total Cover 2 - Dominance Test is > 50% Shrub Stratum (Plot size: _____) \Box 3 - Prevalence Index is ≤3.0 1 _____0 Problematic Hydrophytic Vegetation ¹ (Explain) 0 0.0% 1 Indicators of hydric soil and wetland hydrology must 0.0% be present, unless disturbed or problematic. 0.0% **Definition of Vegetation Strata:** 6. ___ Tree - Woody plants, excluding woody vines, 0 0.0% approximately 20 ft (6 m) or more in height and 3 in. 50% of Total Cover: 0 20% of Total Cover: 0 0 = Total Cover (7.6 cm) or larger in diameter at breast height (DBH). Herb Stratum (Plot size: _____) Sapling - Woody plants, excluding woody vines, 0 approximately 20 ft (6 m) or more in height and less 0 0.0% than 3 in. (7.6 cm) DBH. 0.0% Sapling/Shrub - Woody plants, excluding vines, less 0 0.0% than 3 in. DBH and greater than 3.28 ft (1m) tall. 0.0% 0.0% Shrub - Woody plants, excluding woody vines, 0 0.0% approximately 3 to 20 ft (1 to 6 m) in height. 0 0.0% Herb - All herbaceous (non-woody) plants, including 0.0% herbaceous vines, regardless of size, and woody 0 0.0% plants, except woody vines, less than approximately 3 0 ft (1 m) in height. 0.0% 11.___ 0 12.____ 0.0% Woody vine - All woody vines, regardless of height. 0 _ _ 50% of Total Cover: 0 20% of Total Cover: 0 = Total Cover Woody Vine Stratum (Plot size: _____) 2. _____ 0.0% 0 0.0% 0.0% Hydrophytic 0 0.0% 5. -Vegetation Yes ○ No • 50% of Total Cover: ___0 ___ 20% of Total Cover: ___0 0 = Total Cover Present? Remarks: (If observed, list morphological adaptations below). Managed agricultural field *Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Profile Descr	iption: (De	scribe to	the depti	needed to	documen	t the indi	cator or c	onfirm the	e absence of indicators.)		
Depth		Matrix				dox Featu	ıres		_		
(inches)	Color (moist)	%	Color (moist)	%	Type 1	_Loc2	Texture	Remarks	
0-8	10YR	4/1	100						Sandy Loam		
8-14	2.5Y	5/2	97	2.5Y	6/6	3	С	М	Sandy Loam		
14-18	2.5Y	5/1	97	10YR	6/8	3	С	М	Fine Sandy Clay Loam		
1.T C. C		. Danistia							Di Deve Lieie M	Makik	
		=Depletio	n. RM=Red	duced Matrix,	CS=Cover	ed or Coat	ed Sand G	rains ² Loo	cation: PL=Pore Lining. M=		
Hydric Soil I				П			>			ematic Hydric Soils ³ :	
Histosol (oedon (A2)						e (S8) (LRR		1 cm Muck (A9) (I		
Black Hist							(LRR S, T,		2 cm Muck (A10)		
_	Sulfide (A4)				-	-	1) (LRR 0))		18) (outside MLRA 150A,B)	
l	Layers (A5)				my Gleyed		2)			ain Soils (F19) (LRR P, S, T)	
	lodies (A6) (I		IIV.		oleted Mati	. ,				Loamy Soils (F20) (MLRA 153B)	
					lox Dark S	•	•		Red Parent Mater	• ,	
	ky Mineral (<i>F</i> sence (A8) (L		, i, u)		oleted Darl				Very Shallow Dark	Surface (TF12)	
	k (A9) (LRR	-			lox Depres				Other (Explain in	Remarks)	
	Below Dark S		.11)		1 (F10) (LF		M DA 454)				
	k Surface (A		111)			. , .	MLRA 151)				
	irie Redox (A	•	۸ ۱50۸)		_		(F12) (LR				
_	ick Mineral (S		-				RR P, T, U)			
	eyed Matrix (J, 3)		ta Ochric (4 EOD)	³ Indicators o	of hydrophytic vegetation and	
Sandy Re	-	34)					1LRA 150A,	-	wetland hydrology must be present,		
	Matrix (S6)							ILRA 149A)		disturbed or problematic.	
	. ,		111	And	malous Br	right Loam	y Soils (F2	J) (MLRA 14	49A, 153C, 153D)		
□ Daik Suii	ace (S7) (LR	K P, 3, 1,	0)								
									T		
Restrictive L	ayer (if obs	erved):									
Туре:										· · ·	
Depth (inc	hes):					_			Hydric Soil Present?	Yes ○ No •	
Remarks:											





Photo File: P1010919.JPG Orientation: -facing

Lat/Long or UTM : Long/Easting: -76.1683 Lat/Northing: 36.6952 Description:



Photo File: P1010920.JPG Orientation: -facing

Lat/Long or UTM: Long/Easting: 0 Lat/Northing: 0

Description:

Project/Site: Bedford Solar Center	City/County: Ch	nesapeake	Sampling Date:	09-May-18
Applicant/Owner: Coronal Energy	s	State: VA	Sampling Point: 4	
Investigator(s): M. Molnar, K. Thomas	Section, Townsl	hip, Range: S	T R	
Landform (hillslope, terrace, etc.): Flat	Local relief (conc	ave, convex, n	one): none Slope: n	<u>.0</u> % /0.0 °
	36.6952			ım: NAD83
	30.0932	Long		III. 10.000
Soil Map Unit Name: 1 - Acredale silt loam	- Vac	• No O	NWI classification: Wetland	
Are climatic/hydrologic conditions on the site typical for this time of ye	our.		(If no, explain in Remarks.) Circumstances" present? Yes	No O
Are Vegetation . , Soil . , or Hydrology . significant	tly disturbed?	Are "Normal	Circumstances" present? Yes	NO C
Are Vegetation \square , Soil \square , or Hydrology \square naturally \square	problematic?	(If needed, e	explain any answers in Remarks.)	
SUMMARY OF FINDINGS - Attach site map showing sa	mpling point l	ocations, tr	ansects, important features,	etc.
Hydrophytic Vegetation Present? Yes ● No ○	To the Co			
Hydric Soil Present? Yes No	Is the Sa	impled Area	Yes No	
Wetland Hydrology Present? Yes No	within a	Wetland?	res © No C	
Remarks:	_			
HYDROLOGY				
Wetland Hydrology Indicators:			Secondary Indicators (minimum of 2 red	quired)
Primary Indicators (minimum of one required; check all that apply)			Surface Soil Cracks (B6)	
Surface Water (A1) Aquatic Fauna (B	313)		Sparsely Vegetated Concave Surface	e (B8)
High Water Table (A2) Marl Deposits (B1	15) (LRR U)		Drainage Patterns (B10)	
Saturation (A3) Hydrogen Sulfide	` '		Moss Trim Lines (B16)	
	heres along Living Ro	oots (C3)	Dry Season Water Table (C2)	
Sediment Deposits (B2) Presence of Redu	` '		Crayfish Burrows (C8)	
	uction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery	(C9)
☐ Algal Mat or Crust (B4) ☐ Thin Muck Surfac	• •		Geomorphic Position (D2)	
☐ Iron Deposits (B5) ☐ Other (Explain in Inundation Visible on Aerial Imagery (B7)	Remarks)		Shallow Aquitard (D3)	
Water-Stained Leaves (B9)			☐ FAC-Neutral Test (D5) ☐ Sphagnum moss (D8) (LRR T, U)	
` '	T		Spriagrum moss (D8) (LRR 1, 0)	
Field Observations: Surface Water Present? Yes No Depth (inches):	4			
		Wetland Hydi	rology Present? Yes • No	
Saturation Present? Yes No Depth (inches):	0			
Describe Recorded Data (stream gauge, monitoring well, aerial phot	ios, previous irispe	ctions), ii avai	idule.	

Species? Absolute Rel.Strat. Indicator Dominance Test worksheet: Tree Stratum (Plot size: _____) % Cover Status Cover **Number of Dominant Species** 1. _____ 0 0.0% That are OBL, FACW, or FAC: 0 (A) 0 0.0% **Total Number of Dominant** Species Across All Strata: (B) 0.0% Percent of dominant Species 0.0% 0.0% (A/B) That Are OBL, FACW, or FAC: 0.0% 0.0% **Prevalence Index worksheet:** _____0 8. _____ 0.0% Total % Cover of: Multiply by: 50% of Total Cover: 0 20% of Total Cover: 0 = **Total Cover** OBL species $0 \times 1 = 0$ FACW species 0 x 2 = Sapling or Sapling/Shrub Stratum (Plot size: _____) ____0 x 3 = 1. ________ 0 FAC species 0 0.0% FACU species 0 0.0% <u>0</u> x 5 = -UPL species 0 0.0% Column Totals: 0 (A) 0 (B) 0.0% Prevalence Index = B/A = 0.000 6. _______ 0.0% **Hydrophytic Vegetation Indicators:** 0 7. ______ _ 0.0% 8. _____ 0 1 - Rapid Test for Hydrophytic Vegetation 50% of Total Cover: 0 20% of Total Cover: 0 0 = Total Cover 2 - Dominance Test is > 50% Shrub Stratum (Plot size: _____) \Box 3 - Prevalence Index is ≤3.0 1 _____0 ✓ Problematic Hydrophytic Vegetation ¹ (Explain) 0 0.0% 1 Indicators of hydric soil and wetland hydrology must 0.0% be present, unless disturbed or problematic. 0.0% **Definition of Vegetation Strata:** 6. ___ Tree - Woody plants, excluding woody vines, 0 0.0% approximately 20 ft (6 m) or more in height and 3 in. 50% of Total Cover: 0 20% of Total Cover: 0 0 = Total Cover (7.6 cm) or larger in diameter at breast height (DBH). Herb Stratum (Plot size: _____) Sapling - Woody plants, excluding woody vines, 0 approximately 20 ft (6 m) or more in height and less 0 0.0% than 3 in. (7.6 cm) DBH. 0.0% Sapling/Shrub - Woody plants, excluding vines, less 0 0.0% than 3 in. DBH and greater than 3.28 ft (1m) tall. 0.0% 0.0% Shrub - Woody plants, excluding woody vines, 0 0.0% approximately 3 to 20 ft (1 to 6 m) in height. 0 0.0% Herb - All herbaceous (non-woody) plants, including 0.0% herbaceous vines, regardless of size, and woody 0 0.0% plants, except woody vines, less than approximately 3 0 ft (1 m) in height. 0.0% 11.___ 0 12.____ 0.0% Woody vine - All woody vines, regardless of height. 0 _ _ 50% of Total Cover: 0 20% of Total Cover: 0 = Total Cover Woody Vine Stratum (Plot size: _____) 2. _____ 0.0% 0 0.0% 0.0% Hydrophytic 0 0.0% 5. -Vegetation Yes ● No ○ 50% of Total Cover: 0 20% of Total Cover: 0 0 = Total Cover Present? Remarks: (If observed, list morphological adaptations below). Managed farm field *Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: 4

Profile Descr	ription: (De	scribe to	the depth	needed to	documen	t the indi	cator or c	onfirm the	e absence of indicators	5.)		
Depth		Matrix			Re	dox Featı			_			
(inches)	Color (moist)	%	Color (moist)	%	Type 1	_Loc2	Texture	Remarks		
0-6	7.5YR	5/1	100						Clay Loam			
6-18	10YR	6/1	90	10YR	5/6	10	С	М	Clay Loam			
					-							
	-		-	-	-	-		-				
1 Type: C=Cond	centration. D	=Depletic	n. RM=Red	uced Matrix.	CS=Cover	ed or Coat	ed Sand G	rains ² Lo	cation: PL=Pore Lining. I	M=Matrix		
Hydric Soil I										blematic Hydric Soils ³ :		
Histosol (Poly	vvalue Belo	ow Surface	e (S8) (LRR	S T II)		•		
l — `	pedon (A2)						LRR S, T,		1 cm Muck (A9			
☐ Black Hist				_			1) (LRR O		2 cm Muck (A1	(F18) (outside MLRA 150A,B)		
_	Sulfide (A4)					d Matrix (F		,		lplain Soils (F19) (LRR P, S, T)		
	Layers (A5)			_	oleted Mat		_,			tht Loamy Soils (F20) (MLRA 153B)		
Organic B	Bodies (A6) (L	RR P, T,	U)			urface (F6)		Red Parent Mai			
5 cm Muc	ky Mineral (A	47) (LRR F	P, T, U)			k Surface (•		Very Shallow Dark Surface (TF12)			
☐ Muck Pres	sence (A8) (L	RR U)				ssions (F8)			Other (Explain in Remarks)			
1 cm Muc	k (A9) (LRR	P, T)		Mai	1 (F10) (LI	RR U)			Outer (Explain	iii Remarks)		
Depleted	Below Dark S	Surface (A	11)	☐ Dep	oleted Och	ric (F11) (MLRA 151)					
Thick Dar	k Surface (A	12)		Iron	n-Mangane	ese Masses	(F12) (LR	R O, P, T)				
Coast Pra	irie Redox (A	(16) (MLR	A 150A)	Um	bric Surfac	ce (F13) (L	RR P, T, U)				
Sandy Mu	ıck Mineral (S	51) (LRR (), S)	☐ Del	ta Ochric ((F17) (MLR	A 151)		3			
	eyed Matrix (S4)		Rec	luced Vert	ic (F18) (M	1LRA 150A,	, 150B)	Indicator wetland	s of hydrophytic vegetation and I hydrology must be present,		
Sandy Re				Pied	dmont Floo	odplain Soi	ls (F19) (M	1LRA 149A)		ss disturbed or problematic.		
	Matrix (S6)			And	malous Br	right Loam	y Soils (F2	0) (MLRA 1	49A, 153C, 153D)			
☐ Dark Surf	ace (S7) (LR	R P, S, T,	U)									
Restrictive L	ayer (if obs	erved):										
Туре:												
Depth (inc	hes):					_			Hydric Soil Present	? Yes • No 🔾		
Remarks:									I.			



Photo File: P1010928.JPG

Orientation:

-facing

Lat/Long or UTM: Long/Easting: -76.1683

Lat/Northing: 36.6952

Description:



Photo File: P1010929.JPG

Orientation:

-facing

Lat/Long or UTM: Long/Easting: 0

Lat/Northing: 0

Description:

Lacritoraning.

City/County: Chesapeake	Sampling Date: 09-May-18
State: VA	Sampling Point: 5
Section, Township, Range:	S T R
Local relief (concave, convex	Slope: 0.0 % / 0.0 °
-	ong.: -76.1683
30.0932	
- Vas 📵 Na 🔘	NWI classification: Upland
-	(If no, explain in Remarks.)
ly disturbed? Are "Norm	nal Circumstances" present? Yes • No ·
oroblematic? (If needed	d, explain any answers in Remarks.)
mpling point locations,	transects, important features, etc.
To the Consultation	
Is the Sampled Area	Yes ○ No ●
within a Wetland?	res U no U
	Secondary Indicators (minimum of 2 required)
12)	Surface Soil Cracks (B6)
	☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10)
	Moss Trim Lines (B16)
` '	Dry Season Water Table (C2)
	Crayfish Burrows (C8)
ction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)
e (C7)	Geomorphic Position (D2)
Remarks)	Shallow Aquitard (D3)
	FAC-Neutral Test (D5)
	☐ Sphagnum moss (D8) (LRR T, U)
Wetland H	ydrology Present? Yes O No 💿
os, previous inspections), if a	vailable:
	State: VA Section, Township, Range: Local relief (concave, convex 36.6952 Local relief (conca

Sampling Point: 5 Species? Absolute Rel.Strat. Indicator Dominance Test worksheet: Tree Stratum (Plot size: _____) % Cover Status Cover **Number of Dominant Species** 1. _____ 0 0.0% That are OBL, FACW, or FAC: 0 (A) 0 0.0% **Total Number of Dominant** Species Across All Strata: (B) 0.0% Percent of dominant Species 0.0% 0.0% (A/B) That Are OBL, FACW, or FAC: 0.0% 0.0% **Prevalence Index worksheet:** _____0 8. _____ 0.0% Total % Cover of: Multiply by: 50% of Total Cover: 0 20% of Total Cover: 0 = **Total Cover** OBL species $0 \times 1 = 0$ FACW species 0 x 2 =Sapling or Sapling/Shrub Stratum (Plot size: _____) 0 x 3 =1. ________ 0 FAC species 0 0.0% FACU species 0 0.0% $\frac{0}{}$ x 5 = -UPL species 0 0.0% Column Totals: 0 (A) 0 (B) 0.0% Prevalence Index = B/A = 0.000 6. _______ 0.0% **Hydrophytic Vegetation Indicators:** 0 7. ______ _ 0.0% 8. _____ 0 1 - Rapid Test for Hydrophytic Vegetation 50% of Total Cover: 0 20% of Total Cover: 0 0 = Total Cover 2 - Dominance Test is > 50% Shrub Stratum (Plot size: _____) \Box 3 - Prevalence Index is ≤3.0 1 _____0 Problematic Hydrophytic Vegetation ¹ (Explain) 0 0.0% 1 Indicators of hydric soil and wetland hydrology must 0.0% be present, unless disturbed or problematic. 0.0% **Definition of Vegetation Strata:** 6. ___ Tree - Woody plants, excluding woody vines, 0 0.0% approximately 20 ft (6 m) or more in height and 3 in. 50% of Total Cover: 0 20% of Total Cover: 0 0 = Total Cover (7.6 cm) or larger in diameter at breast height (DBH). Herb Stratum (Plot size: _____) Sapling - Woody plants, excluding woody vines, 0 approximately 20 ft (6 m) or more in height and less 0 0.0% than 3 in. (7.6 cm) DBH. 0.0% Sapling/Shrub - Woody plants, excluding vines, less 0 0.0% than 3 in. DBH and greater than 3.28 ft (1m) tall. 0.0% 0.0% Shrub - Woody plants, excluding woody vines, 0 0.0% approximately 3 to 20 ft (1 to 6 m) in height. 0 0.0% Herb - All herbaceous (non-woody) plants, including 0.0% herbaceous vines, regardless of size, and woody 0 0.0% plants, except woody vines, less than approximately 3 0 ft (1 m) in height. 0.0% 11.___ 0 12.____ 0.0% Woody vine - All woody vines, regardless of height. 0 _ _ 50% of Total Cover: 0 20% of Total Cover: 0 = Total Cover Woody Vine Stratum (Plot size: _____) 2. _____ 0.0% 0 0.0% 0.0% Hydrophytic 0 0.0% 5. -Vegetation Yes ○ No • 50% of Total Cover: ___0 ___ 20% of Total Cover: ___0 0 = Total Cover Present? Remarks: (If observed, list morphological adaptations below). Managed agricultural field *Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Depth (inches) Matrix Redox Features Loc² Texture Remarks 0-3 10YR 4/1 100 Clay Loam 3-6 2.5Y 4/1 100 Clay Loam 6-18 2.5Y 5/1 97 10YR 5/6 3 C M Clay Loam	
0-3 10YR 4/1 100 Clay Loam 3-6 2.5Y 4/1 100 Clay Loam	
3-6 2.5Y 4/1 100 Clay Loam	
6-18 2.5Y 5/1 97 10YR 5/6 3 C M Clay Loam	
Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains 2Location: PL=Pore Lining. M=Matrix	
Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :	
Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O)	
Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR S)	
Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (outside MLRA 150A	R)
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S	
Ctratified Layors (AE)	-
Oversity Redice (AC) (IRR R. T. II)	A 155b)
Red Parent Material (172)	
Muck Processes (AS) (LPP II)	
I cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (Explain in Remarks)	
Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151)	
☐ Thick Dark Surface (A12) ☐ Iron-Manganese Masses (F12) (LRR O, P, T)	
☐ Coast Prairie Redox (A16) (MLRA 150A) ☐ Umbric Surface (F13) (LRR P, T, U)	
Sandy Muck Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151)	
Sandy Gleved Matrix (S4) Reduced Vortic (519) (MLPA 1508) Indicators of hydrophytic vegetation	
wetland hydrology must be preser Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) wetland hydrology must be preser unless disturbed or problematic	
Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)	
Dark Surface (S7) (LRR P, S, T, U)	
Restrictive Layer (if observed):	
Type:	
I Hydric Soil Present? Voc () No (♥)	
Depth (inches): Hydric Soil Present? Yes O No •	
Depth (inches): Yes Vo No Remarks:	
beput (inches)	

Photo File: P1010931.JPG	Orientation:	-facing
Lat/Long or UTM: Long/Easting	:-76.1683	Lat/Northing: 36.6952

Description:

Photo File:	None.bmp	Orientation:		-facing
Lat/Long or UTN	Ո։ Long/Easting։ ()	Lat/Northing: 0	
Description	:			

Project/Site: Bedford Solar Center	City/County: Chesapeake	Sampling Date: 09-May-18
Applicant/Owner: Coronal Energy	State: VA	Sampling Point: 6
Investigator(s): M. Molnar, K. Thomas	Section, Township, Range:	S T R
Landform (hillslope, terrace, etc.): Flat	Local relief (concave, convex,	none): none
		ng.: -76.1683 Datum: NAD83
	30.0932	
Soil Map Unit Name: 1 - Acredale silt loam	ar? Yes • No •	NWI classification: Upland
Are climatic/hydrologic conditions on the site typical for this time of ye	u	(If no, explain in Remarks.)
Are Vegetation . , Soil . , or Hydrology . significant	ly disturbed? Are "Norma	al Circumstances" present? Yes No
Are Vegetation , Soil , or Hydrology naturally p	roblematic? (If needed,	, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sa	mpling point locations, t	transects, important features, etc.
Hydrophytic Vegetation Present? Yes No •	To the Consuled Asses	
Hydric Soil Present? Yes ○ No ●	Is the Sampled Area	Yes ○ No ●
Wetland Hydrology Present? Yes ○ No ●	within a Wetland?	res ∪ No ⊚
Remarks: HYDROLOGY		
1		
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)
Surface Water (A1) Aquatic Fauna (B:	3)	☐ Surface Soil Cracks (B6)☐ Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B1		Drainage Patterns (B10)
Saturation (A3) Hydrogen Sulfide		Moss Trim Lines (B16)
	eres along Living Roots (C3)	Dry Season Water Table (C2)
Sediment Deposits (B2)		Crayfish Burrows (C8)
☐ Drift Deposits (B3) ☐ Recent Iron Redu	ction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)
☐ Algal Mat or Crust (B4) ☐ Thin Muck Surface	e (C7)	Geomorphic Position (D2)
☐ Iron Deposits (B5) ☐ Other (Explain in	Remarks)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral Test (D5)
Water-Stained Leaves (B9)		Sphagnum moss (D8) (LRR T, U)
Field Observations:		
Surface Water Present? Yes No Depth (inches):		
Water Table Present? Yes No Depth (inches):		drology Present? Yes ○ No ●
Saturation Present? (includes capillary fringe) Yes No Depth (inches):	Wetland Hy	drology Present? Yes ○ No ●
Describe Recorded Data (stream gauge, monitoring well, aerial phote	os, previous inspections), ir av	aliadie:

Species? Absolute Rel.Strat. Indicator Dominance Test worksheet: Tree Stratum (Plot size: _____) % Cover Status Cover **Number of Dominant Species** 1. _____ 0 0.0% That are OBL, FACW, or FAC: 0 (A) 0 0.0% **Total Number of Dominant** Species Across All Strata: (B) 0.0% Percent of dominant Species 0.0% 0.0% (A/B) That Are OBL, FACW, or FAC: 0.0% 0.0% **Prevalence Index worksheet:** _____0 8. _____ 0.0% Total % Cover of: Multiply by: 50% of Total Cover: 0 20% of Total Cover: 0 = **Total Cover** OBL species $0 \times 1 = 0$ FACW species 0 x 2 =Sapling or Sapling/Shrub Stratum (Plot size: _____) 0 x 3 =1. ________ 0 FAC species 0 0.0% FACU species 0 0.0% $\frac{0}{}$ x 5 = -UPL species 0 0.0% Column Totals: 0 (A) 0 (B) 0.0% Prevalence Index = B/A = 0.000 6. _______ 0.0% **Hydrophytic Vegetation Indicators:** 0 7. ______ _ 0.0% 8. _____ 0 1 - Rapid Test for Hydrophytic Vegetation 50% of Total Cover: 0 20% of Total Cover: 0 0 = Total Cover 2 - Dominance Test is > 50% Shrub Stratum (Plot size: _____) \Box 3 - Prevalence Index is ≤3.0 1 _____0 Problematic Hydrophytic Vegetation ¹ (Explain) 0 0.0% 1 Indicators of hydric soil and wetland hydrology must 0.0% be present, unless disturbed or problematic. 0.0% **Definition of Vegetation Strata:** 6. ___ Tree - Woody plants, excluding woody vines, 0 0.0% approximately 20 ft (6 m) or more in height and 3 in. 50% of Total Cover: 0 20% of Total Cover: 0 0 = Total Cover (7.6 cm) or larger in diameter at breast height (DBH). Herb Stratum (Plot size: _____) Sapling - Woody plants, excluding woody vines, 0 approximately 20 ft (6 m) or more in height and less 0 0.0% than 3 in. (7.6 cm) DBH. 0.0% Sapling/Shrub - Woody plants, excluding vines, less 0 0.0% than 3 in. DBH and greater than 3.28 ft (1m) tall. 0.0% 0.0% Shrub - Woody plants, excluding woody vines, 0 0.0% approximately 3 to 20 ft (1 to 6 m) in height. 0 0.0% Herb - All herbaceous (non-woody) plants, including 0.0% herbaceous vines, regardless of size, and woody 0 0.0% plants, except woody vines, less than approximately 3 0 ft (1 m) in height. 0.0% 11.___ 0 12.____ 0.0% Woody vine - All woody vines, regardless of height. 0 _ _ 50% of Total Cover: 0 20% of Total Cover: 0 = Total Cover Woody Vine Stratum (Plot size: _____) 2. _____ 0.0% 0 0.0% 0.0% Hydrophytic 0 0.0% 5. -Vegetation Yes ○ No • 50% of Total Cover: ___0 ___ 20% of Total Cover: ___0 0 = Total Cover Present? Remarks: (If observed, list morphological adaptations below). Managed agricultural field *Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: 6

Profile Descr	ription: (De	scribe to	the depth	needed to	documen	t the indi	icator or c	onfirm the	e absence of indicators	s.)	
Depth		Matrix			Re	dox Featı	ıres		_		
(inches)	Color ((moist)	%	Color (moist)	%	Type 1	_Loc2	Texture	Remarks	
0-10	2.5Y	3/2	100						Clay Loam		
10-18	2.5Y	4/1	97	10YR	5/6	3	С	М	Clay Loam		
				-							
		-		-					<u> </u>		
								-	-	·	
1											
		=Depletio	n. RM=Red	uced Matrix,	CS=Cover	ed or Coat	ted Sand G	rains ² Loo	cation: PL=Pore Lining.	M=Matrix	
Hydric Soil I									Indicators for Pro	oblematic Hydric Soils ³ :	
Histosol (•						e (S8) (LRR		1 cm Muck (A9) (LRR O)	
	pedon (A2)			_			(LRR S, T,		2 cm Muck (A1	0) (LRR S)	
Black Hist							F1) (LRR O)	Reduced Vertic	(F18) (outside MLRA 150A,B)	
l	Sulfide (A4))		Loa	my Gleyed	d Matrix (F	2)		☐ Piedmont Flood	dplain Soils (F19) (LRR P, S, T)	
	Layers (A5)			☐ Dep	oleted Mat	rix (F3)			Anomalous Brig	ght Loamy Soils (F20) (MLRA 153B)	
	Bodies (A6) (I		-			Surface (F6	,		Red Parent Ma	terial (TF2)	
	ky Mineral (A		P, T, U)			k Surface			☐ Very Shallow D	ark Surface (TF12)	
	sence (A8) (l				•	ssions (F8))		Other (Explain	in Remarks)	
	k (A9) (LRR	. ,			rl (F10) (Ll						
	Below Dark S		(11)	☐ Dep	oleted Och	ric (F11) (MLRA 151)				
	k Surface (A	•		Iro	n-Mangane	ese Masses	s (F12) (LR	R O, P, T)			
	irie Redox (A			Um	bric Surfac	ce (F13) (l	RR P, T, U)			
	ıck Mineral (S		O, S)	L Del	ta Ochric ((F17) (MLF	RA 151)		3 _{tndicator}	rs of hydrophytic vogotation and	
	eyed Matrix ((S4)		Rec	duced Vert	ic (F18) (N	1LRA 150A	, 150B)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present,		
Sandy Re				Pie	dmont Floo	odplain So	ils (F19) (M	1LRA 149A)		ss disturbed or problematic.	
	Matrix (S6)			And	omalous Bi	right Loam	y Soils (F2	0) (MLRA 14	49A, 153C, 153D)		
☐ Dark Surf	ace (S7) (LR	R P, S, T,	U)								
Restrictive L	aver (if ohe	enved):									
Type:	ayer (ii obs	-									
	hoc).					_			Hydric Soil Present	? Yes ○ No ●	
Depth (inc	nes)										
Remarks:											





Photo File: P1010942.JPG Orientation: -facing

Lat/Long or UTM : Long/Easting: -76.1683

Lat/Northing: 36.6952

Description:



Photo File: P1010943.JPG Orientation: -facing

Lat/Long or UTM: Long/Easting: 0 Lat/Northing: 0

Description:

Project/Site: Bedford Solar Center	City/County: Chesapeake	Sampling Date: 09-May-18		
Applicant/Owner: Coronal Energy	State: VA	Sampling Point: 7		
Investigator(s): M. Molnar, K. Thomas	Section, Township, Range:	: S T R		
Landform (hillslope, terrace, etc.): Flat	Local relief (concave, conve	Slope: 0.0 % / 0.0 °		
	-	ong.: -76.1683		
	30.0932			
Soil Map Unit Name: 42 - Tomotley-Bertie complex	Yes • No O	NWI classification: Upland		
Are climatic/hydrologic conditions on the site typical for this time of ye		(If no, explain in Remarks.)		
Are Vegetation . , Soil . , or Hydrology . significant	ly disturbed? Are "Norr	mal Circumstances" present? Yes No		
Are Vegetation , Soil , or Hydrology naturally p	oroblematic? (If neede	ed, explain any answers in Remarks.)		
SUMMARY OF FINDINGS - Attach site map showing sa	mpling point locations	, transects, important features, etc.		
Hydrophytic Vegetation Present? Yes No No	7. Ib. Gl. I A.			
Hydric Soil Present? Yes ○ No ●	Is the Sampled Area	a Yes ○ No •		
Wetland Hydrology Present? Yes ○ No •	within a Wetland?	res Uno U		
HYDROLOGY				
Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2 required)		
Primary Indicators (minimum of one required; check all that apply)		Surface Soil Cracks (B6)		
Surface Water (A1) Aquatic Fauna (B.	13)	Sparsely Vegetated Concave Surface (B8)		
High Water Table (A2) Marl Deposits (B1		Drainage Patterns (B10)		
☐ Saturation (A3) ☐ Hydrogen Sulfide	Odor (C1)	Moss Trim Lines (B16)		
☐ Water Marks (B1) ☐ Oxidized Rhizosph	neres along Living Roots (C3)	Dry Season Water Table (C2)		
☐ Sediment Deposits (B2) ☐ Presence of Redu	ced Iron (C4)	Crayfish Burrows (C8)		
☐ Drift Deposits (B3) ☐ Recent Iron Redu	ction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)	e (C7)	Geomorphic Position (D2)		
☐ Iron Deposits (B5) ☐ Other (Explain in	Remarks)	Shallow Aquitard (D3)		
Inundation Visible on Aerial Imagery (B7)		☐ FAC-Neutral Test (D5)		
☐ Water-Stained Leaves (B9)		Sphagnum moss (D8) (LRR T, U)		
Field Observations: Surface Water Present? Yes No Depth (inches):				
Surface Water Fresche.				
Water Table Present? Yes No Depth (inches):		Hydrology Present? Yes ○ No ●		
Saturation Present? (includes capillary fringe) Yes No Depth (inches):		rydrology Present: 163 0 140 0		
Describe Recorded Data (stream gauge, monitoring well, aerial phot	os, previous inspections), ii e	available.		

Species? Absolute Rel.Strat. Indicator Dominance Test worksheet: Tree Stratum (Plot size: _____) % Cover Status Cover **Number of Dominant Species** 1. _____ 0 0.0% That are OBL, FACW, or FAC: 0 (A) 0 0.0% **Total Number of Dominant** Species Across All Strata: (B) 0.0% Percent of dominant Species 0.0% 0.0% (A/B) That Are OBL, FACW, or FAC: 0.0% 0.0% **Prevalence Index worksheet:** _____0 8. _____ 0.0% Total % Cover of: Multiply by: 50% of Total Cover: 0 20% of Total Cover: 0 = **Total Cover** OBL species $0 \times 1 = 0$ FACW species 0 x 2 =Sapling or Sapling/Shrub Stratum (Plot size: _____) 0 x 3 =0 FAC species 0 0.0% FACU species 3. __________ 0 0.0% $\frac{0}{}$ x 5 = -UPL species 0 0.0% Column Totals: 0 (A) 0 (B) 0.0% Prevalence Index = B/A = 0.000 6. _______ 0.0% **Hydrophytic Vegetation Indicators:** 0 7. ______ _ 0.0% 8. _____ 0 1 - Rapid Test for Hydrophytic Vegetation 50% of Total Cover: 0 20% of Total Cover: 0 0 = Total Cover 2 - Dominance Test is > 50% Shrub Stratum (Plot size: _____) \Box 3 - Prevalence Index is ≤3.0 1 _____0 Problematic Hydrophytic Vegetation ¹ (Explain) 0 0.0% 1 Indicators of hydric soil and wetland hydrology must 0.0% be present, unless disturbed or problematic. 0.0% **Definition of Vegetation Strata:** 6. ___ Tree - Woody plants, excluding woody vines, 0 0.0% approximately 20 ft (6 m) or more in height and 3 in. 50% of Total Cover: 0 20% of Total Cover: 0 0 = Total Cover (7.6 cm) or larger in diameter at breast height (DBH). Herb Stratum (Plot size: _____) Sapling - Woody plants, excluding woody vines, 0 approximately 20 ft (6 m) or more in height and less 0 0.0% than 3 in. (7.6 cm) DBH. 0.0% Sapling/Shrub - Woody plants, excluding vines, less 0 0.0% than 3 in. DBH and greater than 3.28 ft (1m) tall. 0.0% 0.0% Shrub - Woody plants, excluding woody vines, 0 0.0% approximately 3 to 20 ft (1 to 6 m) in height. 0 0.0% Herb - All herbaceous (non-woody) plants, including 0.0% herbaceous vines, regardless of size, and woody 0 0.0% plants, except woody vines, less than approximately 3 0 ft (1 m) in height. 0.0% 11.___ 0 12.____ 0.0% Woody vine - All woody vines, regardless of height. 0 _ _ 50% of Total Cover: 0 20% of Total Cover: 0 = Total Cover Woody Vine Stratum (Plot size: _____) 2. _____ 0.0% 0 0.0% 0.0% Hydrophytic 0 0.0% 5. -Vegetation Yes ○ No • 50% of Total Cover: ___0 ___ 20% of Total Cover: ___0 0 = Total Cover Present? Remarks: (If observed, list morphological adaptations below). Managed agricultural field *Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: 7

Profile Descr	iption: (De	scribe to	the depth	needed to	documen	t the indi	cator or c	onfirm the	absence of indicators.)	
Depth		Matrix				dox Featu					
(inches)	Color (%	Color (moist)	%	Type 1	Loc2	Texture	Remarks	
0-4	10YR	4/2	100						Sandy Loam		
4-10	10YR	5/2	100						Sandy Loam		
10-18	2.5Y	4/2	95	10YR	5/6	5	С	М	Sandy Clay Loam		
								-			
	-			-					-	.	
1 Tymor C—Cone						od or Coat	- Cond Co		rotion, DI Doro Lining M	- Maturia	
¹ Type: C=Cond Hydric Soil I		=Depletic	on. RM=Red	uceu Matrix,	CS=Coveri	ed or Coate	eu Sanu Gi	rairis -LOC	cation: PL=Pore Lining. M		
Histosol (A				Dob	araluo Pole	ow Surface	(CO) (LDD	C T II)		lematic Hydric Soils ³ :	
l — `	pedon (A2)					face (S9) (1 cm Muck (A9)		
Black Hist	, ,					Mineral (F			2 cm Muck (A10)		
	Sulfide (A4)					Matrix (F2)		F18) (outside MLRA 150A,B)	
	Layers (A5)				oleted Mati		-)			lain Soils (F19) (LRR P, S, T)	
	odies (A6) (I	RRPT	Ш	`		urface (F6)			_	t Loamy Soils (F20) (MLRA 153B)	
	ky Mineral (A		-			s Surface (Fo)			Red Parent Mate	` '	
	sence (A8) (L		, 1, 0)			sions (F8)	F/)		☐ Very Shallow Dar		
	k (A9) (LRR	-							Other (Explain in	Remarks)	
	Below Dark S		111)	☐ Marl (F10) (LRR U) ☐ Depleted Ochric (F11) (MLRA 151)							
	k Surface (A	-	111)	`		. , .	•				
	irie Redox (A	•	۸ ۱50۸)		_	ese Masses					
	ick Mineral (S		-			e (F13) (L)			
	eyed Matrix (5, 3)			F17) (MLR	-	1E0D)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present,		
Sandy Red	-	3 4)				ic (F18) (M					
	Matrix (S6)							ILRA 149A)		disturbed or problematic.	
	ace (S7) (LR	DDCT	ш	And	maious Br	ignt Loamy	/ Solis (F20	J) (MLRA 12	19A, 153C, 153D)		
□ Dark Surie	ace (37) (LK	K P, 3, 1,	0)								
Restrictive La	ayer (if obs	erved):									
Type:						_			Hudric Coil Brocont?	Yes ○ No ●	
Depth (incl	hes):								Hydric Soil Present?	Yes ∪ No •	
Remarks:											



Photo Path: C:\WetformOrig\Bedford Solar\Photos\



Photo File: P1010950.JPG

Orientation:

-facing

Lat/Long or UTM: Long/Easting: -76.1683

Lat/Northing: 36.6952

Description:



Photo File: P1010951.JPG

Orientation:

-facing

Lat/Long or UTM: Long/Easting: 0

Lat/Northing: 0

Description:

Lagriora

Project/Site: Bedford Solar Center	City/County: Chesapeake	Sampling Date: 10-May-18		
Applicant/Owner: Coronal Energy	State: VA	Sampling Point: 8		
Investigator(s): M. Molnar, K. Thomas	Section, Township, Range:	S T R		
Landform (hillslope, terrace, etc.): Flat	Local relief (concave, conve	x, none): none Slope:		
	-	ong.: -76.1683		
	30.0932			
Soil Map Unit Name: 45 - Tomotley-Nimmo complex	Yes • No O	NWI classification: Upland		
Are climatic/hydrologic conditions on the site typical for this time of ye		(If no, explain in Remarks.)		
Are Vegetation , Soil , or Hydrology significant	ly disturbed? Are "Norr	mal Circumstances" present? Yes No		
Are Vegetation , Soil , or Hydrology naturally p	oroblematic? (If neede	ed, explain any answers in Remarks.)		
SUMMARY OF FINDINGS - Attach site map showing sa	mpling point locations,	, transects, important features, etc.		
Hydrophytic Vegetation Present? Yes O No •	To the Consuled Asset	_		
Hydric Soil Present? Yes ○ No ●	Is the Sampled Area	a Yes ○ No •		
Wetland Hydrology Present? Yes ○ No •	within a Wetland?	res Uno S		
HYDROLOGY				
Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2 required)		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required) Surface Soil Cracks (B6)		
Surface Water (A1) Aquatic Fauna (B:	13)	Sparsely Vegetated Concave Surface (B8)		
High Water Table (A2) Marl Deposits (B1		Drainage Patterns (B10)		
☐ Saturation (A3) ☐ Hydrogen Sulfide		Moss Trim Lines (B16)		
☐ Water Marks (B1) ☐ Oxidized Rhizosph	neres along Living Roots (C3)	Dry Season Water Table (C2)		
☐ Sediment Deposits (B2) ☐ Presence of Redu	ced Iron (C4)	Crayfish Burrows (C8)		
☐ Drift Deposits (B3) ☐ Recent Iron Redu	ction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)		
Algal Mat or Crust (B4) Thin Muck Surface	e (C7)	Geomorphic Position (D2)		
☐ Iron Deposits (B5) ☐ Other (Explain in	Remarks)	Shallow Aquitard (D3)		
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral Test (D5)		
☐ Water-Stained Leaves (B9)	1	Sphagnum moss (D8) (LRR T, U)		
Field Observations: Surface Water Present? Yes No Depth (inches):				
Surface Water Fresche.				
Water Table Present? Yes O No O Depth (inches):		Hydrology Present? Yes ○ No ●		
Saturation Present? (includes capillary fringe) Yes No Depth (inches):	Wetland n	ryurology Present? Tes C No C		
Describe Recorded Data (stream gauge, monitoring well, aerial phot Remarks:	os, previous inspections), ii a	avaliaute.		

Species? Absolute Indicator Dominance Test worksheet: Rel.Strat. Tree Stratum (Plot size: _____) % Cover Cover Status **Number of Dominant Species** 1 Fagus grandifolia 40 FACU 66.7% That are OBL, FACW, or FAC: 3 (A) 2. Acer rubrum 16.7% FAC **Total Number of Dominant** 3. Quercus phellos 10 FACW Species Across All Strata: 6 (B) 4. _ ______0 0.0% Percent of dominant Species 0.0% 50.0% (A/B) That Are OBL, FACW, or FAC: 0.0% 7. -0.0% **Prevalence Index worksheet:** _____0 0.0% 8. _____ Total % Cover of: Multiply by: 50% of Total Cover: ____30 ____ 20% of Total Cover: ___12 ____ 60 __ **= Total Cover** OBL species $0 \times 1 = 0$ ___10__ x 2 = Sapling or Sapling/Shrub Stratum (Plot size: _____) FACW species Carpinus caroliniana <u>35</u> x 3 = 5 50.0% FAC species **V** __65 x 4 = 2. Aralia spinosa 5 50.0% FACU species 0 0.0% -0 x 5 =3. _____ UPL species 0 0.0% (B) Column Totals: 110 (A) 385 0.0% Prevalence Index = B/A = 3.500 6. ______ 0.0% **Hydrophytic Vegetation Indicators:** 0 0.0% 7. . 0 8. __ ■ 1 - Rapid Test for Hydrophytic Vegetation 50% of Total Cover: 5 20% of Total Cover: 2 10 = Total Cover 2 - Dominance Test is > 50% Shrub Stratum (Plot size: _____) \Box 3 - Prevalence Index is ≤3.0 ¹ _____0 Problematic Hydrophytic Vegetation ¹ (Explain) 0 0.0% 1 Indicators of hydric soil and wetland hydrology must 0.0% be present, unless disturbed or problematic. 0.0% **Definition of Vegetation Strata:** 6. ___ Tree - Woody plants, excluding woody vines, 0 0.0% approximately 20 ft (6 m) or more in height and 3 in. 50% of Total Cover: 0 20% of Total Cover: 0 0 = Total Cover (7.6 cm) or larger in diameter at breast height (DBH). Herb Stratum (Plot size: ____ Sapling - Woody plants, excluding woody vines, ______10 1 Elymus virginicus ✓ 100.0% FAC approximately 20 ft (6 m) or more in height and less 0 0.0% than 3 in. (7.6 cm) DBH. 0.0% Sapling/Shrub - Woody plants, excluding vines, less 0 0.0% than 3 in. DBH and greater than 3.28 ft (1m) tall. 5._________ 0.0% 0.0% Shrub - Woody plants, excluding woody vines, 0 approximately 3 to 20 ft (1 to 6 m) in height. 0.0% 0 0.0% Herb - All herbaceous (non-woody) plants, including 0.0% herbaceous vines, regardless of size, and woody 0 0.0% 10... plants, except woody vines, less than approximately 3 0 ft (1 m) in height. 0.0% 11.__ 0 _ 12.__ 0.0% Woody vine - All woody vines, regardless of height. 2 _ _ 50% of Total Cover: 5 20% of Total Cover: 10 = Total Cover Woody Vine Stratum (Plot size:) 1 Toxicodendron radicans ______5 2 Lonicera japonica 10 **✓** 33.3% FACU 3. Parthenocissus quinquefolia 50.0% FACU 15 0 0.0% 4. Hydrophytic 0 0.0% 5. Vegetation Yes ○ No • 50% of Total Cover: 15 20% of Total Cover: 6 30 = **Total Cover** Present? Remarks: (If observed, list morphological adaptations below). *Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: 8

Profile Descr	ription: (De	scribe to	the depth	needed to documen	t the indi	cator or co	onfirm the	absence of indicators.)		
Depth		Matrix		Rec	dox Featu					
(inches)	Color (moist)	%	Color (moist)	%	Type 1	Loc2	Texture	Remarks	
0-3	10YR	2/2	100					Fine Sandy Loam		
3-8	10YR	4/2	100					Fine Sandy Loam		
8-18	2.5Y	5/2	100					Fine Sandy Loam		
¹ Type: C=Con	centration. D	=Depletio	n. RM=Red	luced Matrix, CS=Cover	ed or Coat	ed Sand Gr	ains ² Loc	ation: PL=Pore Lining. M=	-Matrix	
Hydric Soil I	Indicators:							Indicators for Prob	ematic Hydric Soils ³ :	
Histosol (A1)			Polyvalue Beld	ow Surface	(S8) (LRR	S, T, U)	1 cm Muck (A9) (LRR O)	
Histic Epip	pedon (A2)			Thin Dark Sur	face (S9) ((LRR S, T, l	J)	2 cm Muck (A10)		
Black Hist	cic (A3)			Loamy Mucky	Mineral (F	1) (LRR O)			18) (outside MLRA 150A,B)	
Hydrogen	Sulfide (A4)			Loamy Gleyed	l Matrix (F2	2)			ain Soils (F19) (LRR P, S, T)	
Stratified	Layers (A5)			Depleted Mati	rix (F3)				Loamy Soils (F20) (MLRA 153B)	
Organic B	Bodies (A6) (L	LRR P, T, I	J)	Redox Dark S	urface (F6))		Red Parent Mater	, , , , ,	
5 cm Muc	ky Mineral (A	47) (LRR F	P, T, U)	Depleted Dark	k Surface (F7)		Very Shallow Dar	` '	
☐ Muck Pres	sence (A8) (L	RR U)		Redox Depres	-			Other (Explain in		
1 cm Muc	k (A9) (LRR	P, T)		☐ Marl (F10) (LF				□ Other (Explain in	Remarks)	
Depleted	Below Dark S	Surface (A	11)	Depleted Och	ric (F11) (ľ	MLRA 151)				
☐ Thick Dar	k Surface (A	12)		☐ Iron-Mangane			R O, P, T)			
Coast Pra	irie Redox (A	16) (MLR	4 150A)	Umbric Surfac	ce (F13) (L	RR P, T, U)				
Sandy Mu	ıck Mineral (S	S1) (LRR (), S)	Delta Ochric (³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
Sandy Gle	eyed Matrix (S4)		Reduced Verti		-	150B)			
Sandy Re	-	,		Piedmont Floo			-			
	Matrix (S6)						-	9A, 153C, 153D)	disturbed of problematic.	
	ace (S7) (LR	R P, S, T,	U)	Anomalous bi	igne Loann	y 30113 (1 20) (IILIVA 14	3A, 133C, 133D)		
	. , ,		•							
Restrictive L	aver (if ohs	erved):								
Type:	-	_								
Depth (inc								Hydric Soil Present?	Yes O No 🗨	
Remarks:										
Nemains.										
I										



Photo File: P1010958.JPG

Orientation:

-facing

Lat/Long or UTM: Long/Easting: -76.1683

Lat/Northing: 36.6952

Description:



Photo File: P1010960.JPG

Orientation:

-facing

Lat/Long or UTM: Long/Easting: 0

Lat/Northing: 0

Description:

Project/Site: Bedford Solar Center	City/County:	Chesapeake	Sampling Date:	10-May-18		
Applicant/Owner: Coronal Energy		State: VA	Sampling Point: 9			
Investigator(s): M. Molnar, K. Thomas	Section, Tow	nship, Range: S	T R			
Landform (hillslope, terrace, etc.): Flat	Local relief (c	oncave, convex,	none): none Slope:	0.0 % / 0.0 °		
	36.6952			tum: NAD83		
	30.0932					
Soil Map Unit Name: 45 - Tomotley-Nimmo complex		s • No O	NWI classification: Wetland	<u> </u>		
Are climatic/hydrologic conditions on the site typical for this time of yo	cui.		(If no, explain in Remarks.) Circumstances" present? Yes	● No ○		
Are Vegetation . , Soil . , or Hydrology . significant	tly disturbed?	Are "Norma	I Circumstances" present? Yes	● NO U		
Are Vegetation , Soil , or Hydrology naturally	problematic?	(If needed,	explain any answers in Remarks.)			
SUMMARY OF FINDINGS - Attach site map showing sa	impling poin	t locations, t	ransects, important feature	s, etc.		
Hydrophytic Vegetation Present? Yes ● No ○	7.11.	6				
Hydric Soil Present? Yes No	1s the	Sampled Area	Yes No			
Wetland Hydrology Present? Yes No	within	n a Wetland?	res © No C			
Remarks:						
HYDROLOGY						
Wetland Hydrology Indicators:			Secondary Indicators (minimum of 2 i	required)		
Primary Indicators (minimum of one required; check all that apply)	ı		Surface Soil Cracks (B6)	required)		
Surface Water (A1) Aquatic Fauna (B			Sparsely Vegetated Concave Surface (B8)			
High Water Table (A2) Marl Deposits (B:			Drainage Patterns (B10)	()		
☐ Saturation (A3) ☐ Hydrogen Sulfide	Odor (C1)		Moss Trim Lines (B16)			
☐ Water Marks (B1) ☐ Oxidized Rhizosp	heres along Living	Roots (C3)	Dry Season Water Table (C2)			
☐ Sediment Deposits (B2) ☐ Presence of Redu			Crayfish Burrows (C8)			
☐ Drift Deposits (B3) ☐ Recent Iron Redu	uction in Tilled Soi	ils (C6)	Saturation Visible on Aerial Imagery (C9)			
☐ Algal Mat or Crust (B4) ☐ Thin Muck Surfac	ce (C7)		Geomorphic Position (D2)	, , ,		
☐ Iron Deposits (B5) ☐ Other (Explain in	Remarks)		Shallow Aquitard (D3)			
Inundation Visible on Aerial Imagery (B7)	,		FAC-Neutral Test (D5)			
☐ Water-Stained Leaves (B9)			Sphagnum moss (D8) (LRR T, U)			
Field Observations:						
Surface Water Present? Yes O No O Depth (inches):	:					
Water Table Present? Yes O No O Depth (inches):	:					
Saturation Present? (includes capillary fringe) Yes No Depth (inches):	: 10	Wetland Hyd	Irology Present? Yes No	O		
Describe Recorded Data (stream gauge, monitoring well, aerial photographics)		spections), if ava	ailable:			
bestine recorded bata (stream gauge, monitoring wen, dental prior	tos, previous in	spections), ii ave	and Sie.			
Remarks:						

Species? Rel.Strat. Indicator Absolute Dominance Test worksheet: Tree Stratum (Plot size: _____) % Cover Cover Status **Number of Dominant Species** 20 FACU 1 Fagus grandifolia 28.6% That are OBL, FACW, or FAC: 6 (A) 2. Carpinus caroliniana _____30 42.9% FAC **Total Number of Dominant** 3 Acer rubrum 15 **~** FAC 9 Species Across All Strata: (B) 4. Quercus michauxii 5 7.1% **FACW** Percent of dominant Species _____0 0.0% 5. _ 66.7% (A/B) That Are OBL, FACW, or FAC: 0.0% 0.0% **Prevalence Index worksheet:** 7. -____0 0.0% 8. _____ Total % Cover of: Multiply by: OBL species 50% of Total Cover: 35 20% of Total Cover: 14 70 = **Total Cover** $0 \times 1 = 0$ ___10__ x 2 = Sapling or Sapling/Shrub Stratum (Plot size: _____) FACW species Carpinus caroliniana 5 ✓ 100.0% FAC $_{-65}$ x 3 = FAC species ___30___ x 4 = 0 0.0% FACU species 3. __________ 0 $\frac{0}{}$ x 5 = -0.0% UPL species 0 0.0% (B) Column Totals: 105 (A) 335 0.0% Prevalence Index = B/A = 3.190 6. ______ 0.0% **Hydrophytic Vegetation Indicators:** 0.0% 8. _____ 0 ■ 1 - Rapid Test for Hydrophytic Vegetation 50% of Total Cover: <u>2.5</u> 20% of Total Cover: <u>1</u> 5 = Total Cover ✓ 2 - Dominance Test is > 50% Shrub Stratum (Plot size: _____) \Box 3 - Prevalence Index is ≤3.0 ¹ Problematic Hydrophytic Vegetation ¹ (Explain) 0 0.0% 1 Indicators of hydric soil and wetland hydrology must 0.0% be present, unless disturbed or problematic. 0.0% **Definition of Vegetation Strata:** 5. ______<u>0</u> 6. ___ Tree - Woody plants, excluding woody vines, 0 0.0% approximately 20 ft (6 m) or more in height and 3 in. 50% of Total Cover: 0 20% of Total Cover: 0 0 = Total Cover (7.6 cm) or larger in diameter at breast height (DBH). Herb Stratum (Plot size: ____ Sapling - Woody plants, excluding woody vines, 1 Arisaema triphyllum 5 **V** 50.0% FACW approximately 20 ft (6 m) or more in height and less 2 Dendrolycopodium dendroideum _____5 **V** 50.0% FACII than 3 in. (7.6 cm) DBH. 0.0% Sapling/Shrub - Woody plants, excluding vines, less 0 0.0% than 3 in. DBH and greater than 3.28 ft (1m) tall. 5._________ 0.0% 0.0% Shrub - Woody plants, excluding woody vines, 0 approximately 3 to 20 ft (1 to 6 m) in height. 0.0% 0 0.0% Herb - All herbaceous (non-woody) plants, including 0.0% herbaceous vines, regardless of size, and woody 0 0.0% 10... plants, except woody vines, less than approximately 3 0 ft (1 m) in height. 0.0% 11.__ 0 _ 12.__ 0.0% Woody vine - All woody vines, regardless of height. 2 _ _ 50% of Total Cover: 5 20% of Total Cover: 10 = Total Cover Woody Vine Stratum (Plot size: _____) 1 Smilax rotundifolia Parthenocissus quinquefolia 5 25.0% FACU 2 3. Vitis rotundifolia ____ 5 25.0% __0 0.0% 4. – Hydrophytic 0 0.0% 5. Vegetation Yes ● No ○ 50% of Total Cover: 10 20% of Total Cover: 4 20 = **Total Cover** Present? Remarks: (If observed, list morphological adaptations below). *Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: 9

Profile Desci	ription: (De	scribe to	the depth	needed to	documer	t the indi	cator or c	onfirm the	e absence of indicators.)		
Depth		Matrix			Re	dox Featı			_		
(inches)	Color (moist)	%	Color	(moist)	%	Type 1	Loc2	Texture	Remarks	
0-3	10YR	2/2	100						Fine Sandy Loam		
3-18	10YR	5/2	60	10YR	6/2	35	D	М	Fine Sandy Loam		
				10YR	5/8	5	С	М			
	-		-					-	-		
							_				
				-			-				
¹ Type: C=Con	centration. D	=Depletio	n. RM=Red	luced Matrix,	CS=Cover	ed or Coat	ed Sand G	rains ² Loc	cation: PL=Pore Lining. M=	Matrix	
Hydric Soil 1				•						ematic Hydric Soils ³ :	
Histosol (Pol	vvalue Bel	ow Surface	e (S8) (LRR	S. T. U)		•	
Histic Epi	pedon (A2)				-		(LRR S, T,		1 cm Muck (A9) (
☐ Black Hist							=1) (LRR O	-	2 cm Muck (A10)		
	Sulfide (A4)					d Matrix (F		,		18) (outside MLRA 150A,B) ain Soils (F19) (LRR P, S, T)	
	Layers (A5)				pleted Mat		-/			Loamy Soils (F20) (MLRA 153B)	
	Bodies (A6) (L	RR P, T, l	J)			Surface (F6)		Red Parent Mater	, , , , , ,	
5 cm Muc	ky Mineral (A	A7) (LRR P	P, T, U)			k Surface (,		Very Shallow Dar	` '	
Muck Pres	sence (A8) (L	.RR U)				ssions (F8)			Other (Explain in		
1 cm Muc	ck (A9) (LRR I	P, T)			rl (F10) (L					Remarks)	
Depleted	Below Dark S	Surface (A	11)	☐ De	pleted Och	ric (F11) (MLRA 151)				
Thick Dar	k Surface (A	12)					; (F12) (LR				
Coast Pra	irie Redox (A	16) (MLR/	A 150A)		-		RR P, T, U				
Sandy Mu	uck Mineral (S	61) (LRR C), S)	☐ De	lta Ochric	(F17) (MLF	RA 151)		3		
Sandy Gle	eyed Matrix (S4)		Reduced Vertic (F18) (MLRA 150A, 150B)					⁵ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
Sandy Re	dox (S5)			Piedmont Floodplain Soils (F19) (MLRA 149A)							
Stripped	Matrix (S6)			Anomalous Bright Loamy Soils (F20) (MLRA 1					49A, 153C, 153D)		
☐ Dark Surf	ace (S7) (LRI	R P, S, T,	U)								
Doctrictive I	aver (if abo										
Restrictive L	ayer (ir obs	ervea):									
Type:	d= ==\.					_			Hydric Soil Present?	Yes No	
Depth (inc	nes):					_			,	100 - 110 -	
Remarks:											





Photo File: P1010965.JPG Orientation: -facing

Lat/Long or UTM : Long/Easting: -76.1683

Description:

Lat/Northing: 36.6952



Photo File: P1010966.JPG Orientation: -facing

Lat/Long or UTM: Long/Easting: 0 Lat/Northing: 0

Description:

Project/Site: Bedford Solar Center	City/County: Chesapeake	Sampling Date: 10-May-18			
Applicant/Owner: Coronal Energy	State: VA	Sampling Point: 10			
Investigator(s): M. Molnar, K. Thomas	Section, Township, Range:	S T R			
Landform (hillslope, terrace, etc.): Flat	Local relief (concave, convex,	none): none Slope:			
		ng.: -76.1683 Datum: NAD83			
	30.0932				
Soil Map Unit Name: 1 - Acredale silt loam	Yes No O	NWI classification: Upland			
Are climatic/hydrologic conditions on the site typical for this time of ye		(If no, explain in Remarks.)			
Are Vegetation . , Soil . , or Hydrology . significant	ly disturbed? Are "Norma	al Circumstances" present? Yes No			
Are Vegetation , Soil , or Hydrology naturally p	oroblematic? (If needed	, explain any answers in Remarks.)			
SUMMARY OF FINDINGS - Attach site map showing sa	mpling point locations,	transects, important features, etc.			
Hydrophytic Vegetation Present? Yes No No	7.11.0.0.0.1.1.4.4				
Hydric Soil Present? Yes ○ No ●	Is the Sampled Area	Yes ○ No ●			
Wetland Hydrology Present? Yes ○ No ●	within a Wetland?	res U NO U			
Remarks: HYDROLOGY					
1					
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)			
Surface Water (A1) Aquatic Fauna (B.	13)	☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8)			
High Water Table (A2) Marl Deposits (B1		Drainage Patterns (B10)			
Saturation (A3) Hydrogen Sulfide		Moss Trim Lines (B16)			
	neres along Living Roots (C3)	Dry Season Water Table (C2)			
☐ Sediment Deposits (B2) ☐ Presence of Redu		Crayfish Burrows (C8)			
☐ Drift Deposits (B3) ☐ Recent Iron Redu	ction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)			
☐ Algal Mat or Crust (B4) ☐ Thin Muck Surfac	e (C7)	Geomorphic Position (D2)			
☐ Iron Deposits (B5) ☐ Other (Explain in	Remarks)	Shallow Aquitard (D3)			
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral Test (D5)			
Water-Stained Leaves (B9)		Sphagnum moss (D8) (LRR T, U)			
Field Observations:					
Surface Water Present? Yes O No Depth (inches):					
Water Table Present? Yes O No Depth (inches):					
Saturation Present? (includes capillary fringe) Yes No Depth (inches):	Wetland Hy	drology Present? Yes O No 🖲			
Describe Recorded Data (stream gauge, monitoring well, aerial phot Remarks:	os, previous inspections), if av	aliable:			

Species? Absolute Rel.Strat. Indicator Dominance Test worksheet: Tree Stratum (Plot size: _____) % Cover Status Cover **Number of Dominant Species** 1. _____ 0 0.0% That are OBL, FACW, or FAC: 0 (A) 0 0.0% **Total Number of Dominant** Species Across All Strata: (B) 0.0% Percent of dominant Species 0.0% 0.0% (A/B) That Are OBL, FACW, or FAC: 0.0% 0.0% **Prevalence Index worksheet:** _____0 8. _____ 0.0% Total % Cover of: Multiply by: 50% of Total Cover: 0 20% of Total Cover: 0 = **Total Cover** OBL species $0 \times 1 = 0$ FACW species 0 x 2 = Sapling or Sapling/Shrub Stratum (Plot size: _____) 0 x 3 =1. ________ 0 FAC species 0 0.0% FACU species 3. __________ 0 0.0% <u>0</u> x 5 = -UPL species 0 0.0% Column Totals: 0 (A) 0 (B) 0.0% Prevalence Index = B/A = 0.000 6. _______ 0.0% **Hydrophytic Vegetation Indicators:** 0 7. ______ _ 0.0% 8. _____ 0 1 - Rapid Test for Hydrophytic Vegetation 50% of Total Cover: 0 20% of Total Cover: 0 0 = Total Cover 2 - Dominance Test is > 50% Shrub Stratum (Plot size: _____) \Box 3 - Prevalence Index is ≤3.0 1 _____0 Problematic Hydrophytic Vegetation ¹ (Explain) 0 0.0% 1 Indicators of hydric soil and wetland hydrology must 0.0% be present, unless disturbed or problematic. 0.0% **Definition of Vegetation Strata:** 6. ___ Tree - Woody plants, excluding woody vines, 0 0.0% approximately 20 ft (6 m) or more in height and 3 in. 50% of Total Cover: 0 20% of Total Cover: 0 0 = Total Cover (7.6 cm) or larger in diameter at breast height (DBH). Herb Stratum (Plot size: _____) Sapling - Woody plants, excluding woody vines, 0 approximately 20 ft (6 m) or more in height and less 0 0.0% than 3 in. (7.6 cm) DBH. 0.0% Sapling/Shrub - Woody plants, excluding vines, less 0 0.0% than 3 in. DBH and greater than 3.28 ft (1m) tall. 0.0% 0.0% Shrub - Woody plants, excluding woody vines, 0 approximately 3 to 20 ft (1 to 6 m) in height. 0.0% 0 0.0% Herb - All herbaceous (non-woody) plants, including 0.0% herbaceous vines, regardless of size, and woody 0 0.0% plants, except woody vines, less than approximately 3 0 ft (1 m) in height. 0.0% 11.___ 0 12.____ 0.0% Woody vine - All woody vines, regardless of height. 0 _ _ 50% of Total Cover: 0 20% of Total Cover: 0 = Total Cover Woody Vine Stratum (Plot size: _____) 2. _____ 0.0% 0 0.0% 0.0% Hydrophytic 0 0.0% 5. -Vegetation Yes ○ No • 50% of Total Cover: ___0 ___ 20% of Total Cover: ___0 0 = Total Cover Present? Remarks: (If observed, list morphological adaptations below). Managed agricultural field *Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point:

10

Profile Descr	iption: (De	scribe to	the depti	needed to	documen	t the indi	cator or c	onfirm the	e absence of indicators.)		
Depth		Matrix				dox Featu	ires		_		
(inches)	Color (moist)	%	Color (moist)	%	Type 1	Loc2	Texture	Remarks	
0-6	10YR	4/2	100						Fine Sandy Loam		
6-10	2.5Y	5/1	97	2.5Y	5/6	3	С	М	Fine Sandy Loam		
10-18	2.5Y	6/6	70	2.5Y	5/1	30	D	М	Fine Sandy Loam		
					-	-					
								-			
1											
<u> </u>		=Depletio	n. RM=Red	duced Matrix,	CS=Cover	ed or Coat	ed Sand G	rains ² Lo	cation: PL=Pore Lining. M=		
Hydric Soil I Histosol (A							(00) (100			ematic Hydric Soils ³ :	
l — `	pedon (A2)						(S8) (LRR		1 cm Muck (A9) (
Black Hist				_			(LRR S, T,		2 cm Muck (A10)		
_	Sulfide (A4)				my Mucky my Gleyed		1) (LRR 0))		18) (outside MLRA 150A,B)	
	Layers (A5)						2)			ain Soils (F19) (LRR P, S, T)	
	odies (A6) (I	RRPTI	11)		oleted Mati lox Dark S	. ,	`			Loamy Soils (F20) (MLRA 153B)	
	ky Mineral (A				oleted Dark	•	•		Red Parent Mater	• •	
	sence (A8) (L		, ., 0,		lox Depres				Very Shallow Dark Surface (TF12)		
	k (A9) (LRR	-			1 (F10) (LF				Other (Explain in	Remarks)	
	Below Dark S		(11)				MLRA 151)				
	k Surface (A	•	,			. , .	(F12) (LR				
	irie Redox (A	•	A 150A)		_		.RR P, T, U				
_	ıck Mineral (S		-					,			
	eyed Matrix (<i>5</i> , <i>5</i> ,	☐ Delta Ochric (F17) (MLRA 151) ☐ Reduced Vertic (F18) (MLRA 150A, 150B)					³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
Sandy Re	-	,		Piedmont Floodplain Soils (F19) (MLRA 149A)							
	Matrix (S6)					-			49A, 153C, 153D)	distarbed or problematic.	
	ace (S7) (LR	R P. S. T.	U)		illalous bi	ignit Loann	y 30115 (1 21	U) (MENA 1	T3A, 133C, 133D)		
	ucc (0,) (2.1	, 5, .,	٥,								
									Ι		
Restrictive L	ayer (if obs	erved):									
Type:						_			Hydric Soil Present?	Yes ○ No ●	
Depth (inc	hes):					_			Hydric Soil Present?	Yes O No O	
Remarks:											





Photo File: P1010981.JPG Orientation: -facing

Lat/Long or UTM: Long/Easting: -76.1683 Description:

Lat/Northing: 36.6952

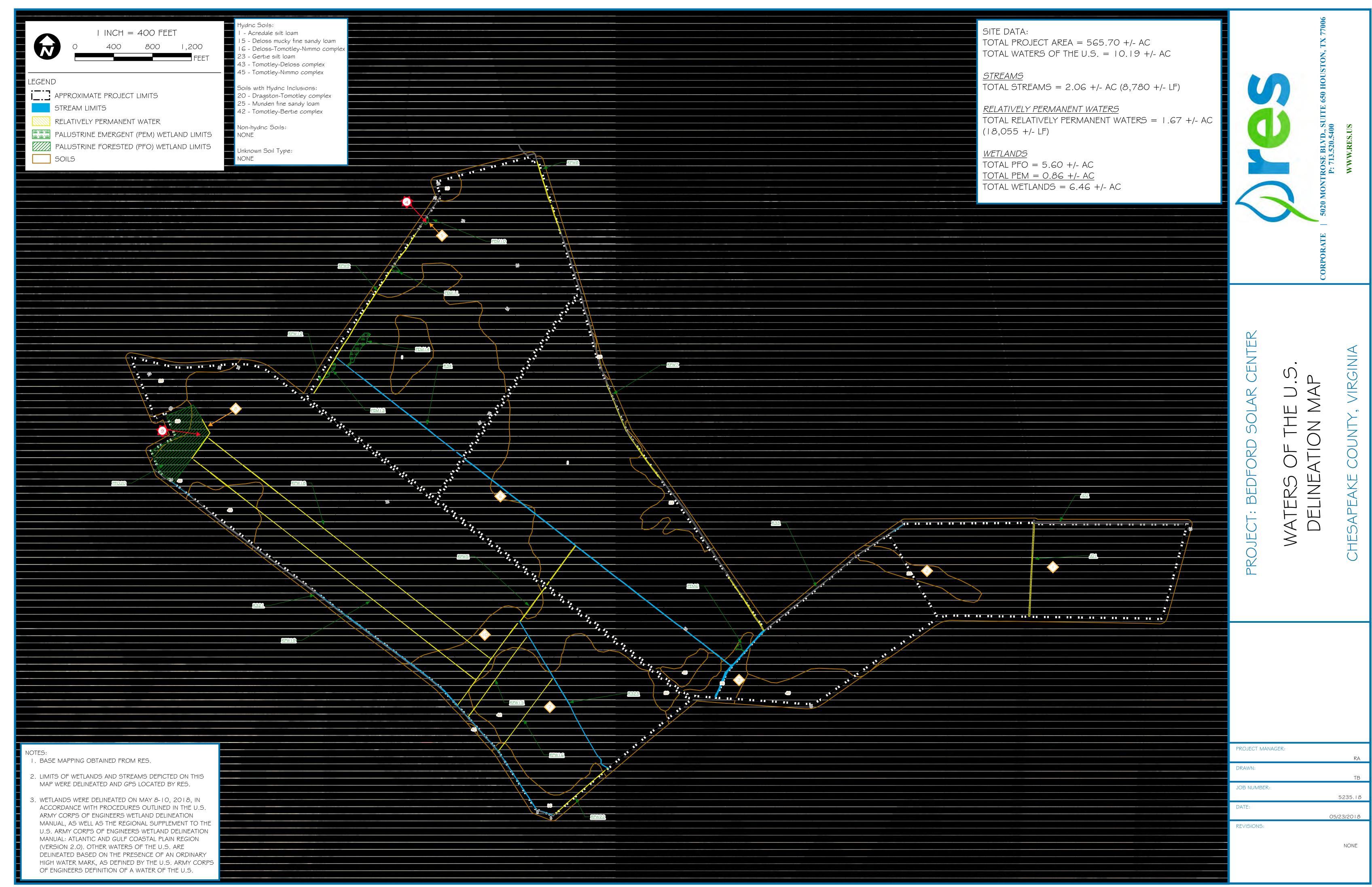


Photo File: P1010982.JPG Orientation: -facing

Lat/Long or UTM: Long/Easting: 0 Lat/Northing: 0

Description:

APPENDIX D WATERS OF THE U.S. DELINEATION MAP





Memorandum

Date: December 11, 2018

Subject: Estimated Wetland and Stream Impact

From: Lukas Klavins, Civil PE

To: Tyler Cline, PMP

This memo provides a summary of wetland and stream impact of the Bedford Solar Center based upon the attached Waters of the U.S. Delineation Map provided by RES. This exhibit displays jurisdictional streams and wetlands per preliminary feedback by the U.S. Army Corps of Engineers. Notation and classification provided below is per the RES Exhibit.

ID	TYPE	IMPACT
PEM-6	Palustrine Emergent Wetland	No Impact
PF-20	Palustrine Forested Wetlands	No Impact
R3-1	Stream	2 stormwater fence crossing approx. 10 LF
		at each crossing of stream disturbance
		20 FT wide access road crossing and
		culvert, impact to stream estimated at 40
		LF of stream disturbance
R3-3	Stream	No Impact
R3-21	Stream	No Impact
R4-22	Stream	No Impact
R4-23	Stream	1 stormwater fence crossing approx. 10 LF
		of stream disturbance
RPW-2	Relatively Permanent Water	No Impact
RPW-9	Relatively Permanent Water	No Impact
RPW-12	Relatively Permanent Water	No Impact

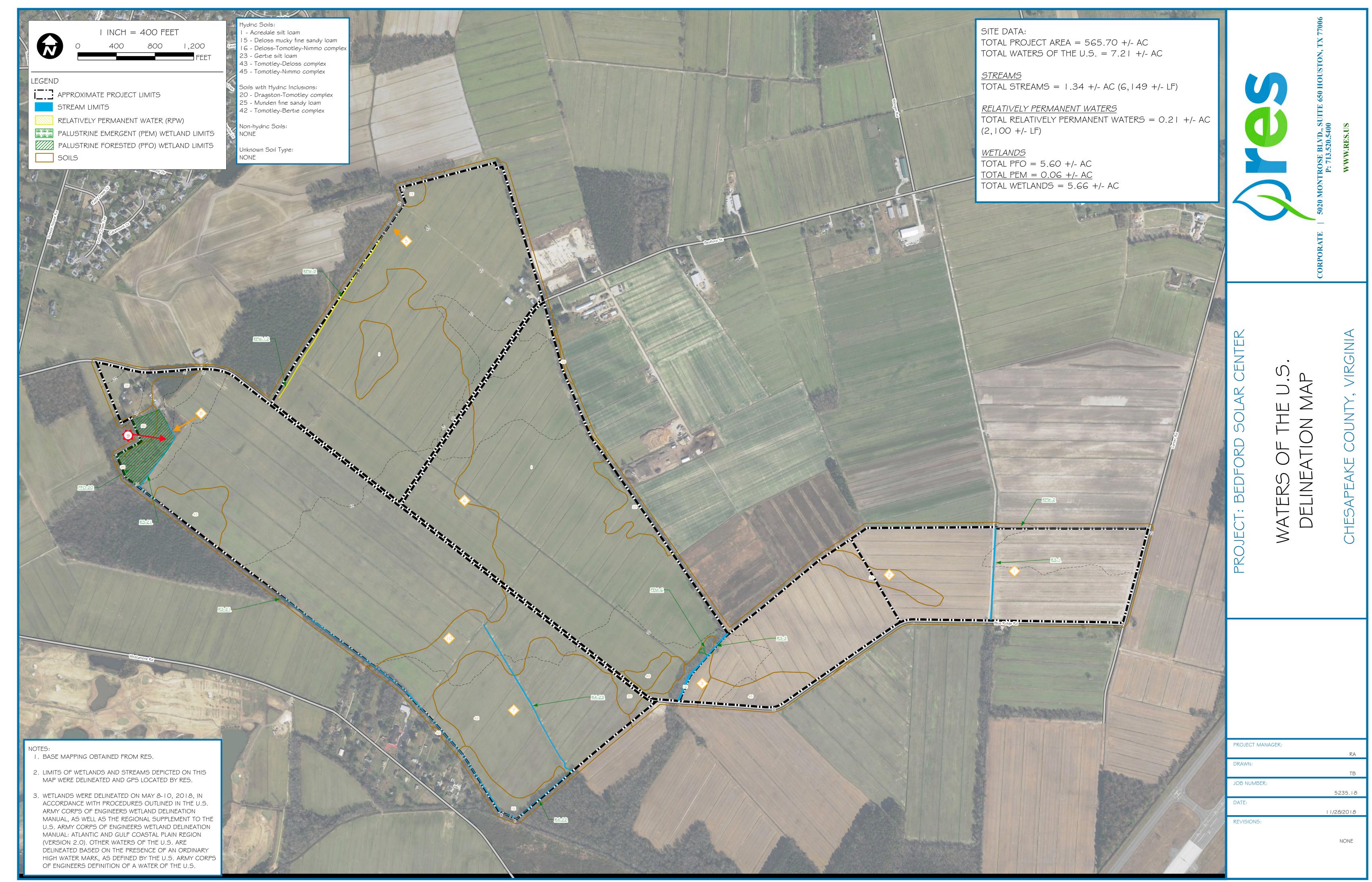
For location of these impacts see the current array plan.

Please feel free to call me at (530) 747-2026 x 244 if you have any questions or if you require any additional information.











DEPARTMENT OF THE ARMY

US ARMY CORPS OF ENGINEERS
NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1011

March 14, 2019

APPROVED JURISDICTIONAL DETERMINATION

Eastern Virginia Regulatory Section NAO-2018-01177 (Pocaty River)

Bedford Solar Center, LLC ATTN: Ms. Erin Kath P.O. Box 2055 Charlottesville, VA 22902

Dear Ms. Kath:

This letter is in regard to your request for verification of an approved jurisdictional determination for the waters of the U.S. (including wetlands) on property known as "Bedford Solar". The site is located on approximately 566 acres in the vicinity of Blue Ridge Road and Bedford Street, in Chesapeake, Virginia (tax map parcel numbers: 062000000090, 062000000040, 062000000100, 062000000120).

An on-site jurisdictional determination has found waters and wetlands regulated under Section 404 of the Clean Water Act (33 U.S.C. 1344) on the property listed above. Tributaries and nontidal wetlands have been identified on the site. This letter shall serve to confirm the wetlands delineation by RES, as shown on the map titled, "Project: Bedford Solar, Waters of the U.S. Delineation Map" dated 29 January 2019 (copy attached).

Our basis for this determination is the application of the Corps' 1987 Wetland Delineation Manual (and Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region) and the positive indicators of wetland hydrology, hydric soils, and hydrophytic vegetation. The wetland is a water of the United States and is part of a tributary system to interstate waters (33 CFR 328.3(a)). These waters meet the Corps' definition of waters of the United States, are part of a tributary system to interstate waters (33 CFR 328.3 (a)) and have an ordinary high water mark.

Discharges of dredged or fill material, including those associated with mechanized landclearing, into jurisdictional waters and/or wetlands on this site will require a Department of the Army permit and may require authorization by state and local authorities, including a Virginia Water Protection Permit from the Virginia Department of Environmental Quality (DEQ), a permit from the Virginia Marine Resources Commission (VMRC) and/or a permit from your local wetlands board. This letter is a confirmation of the Corps jurisdiction for the waters and/or wetlands on the subject property and does

not authorize any work in these jurisdictional areas. Please obtain all required permits before starting work in the delineated waters/wetland areas.

This letter contains an approved jurisdictional determination for your subject site. If you object to this determination, you may request an administrative appeal under Corps regulations at 33 CFR Part 331. Enclosed you will find a Notification of Appeal Process (NAP) fact sheet and Request for Appeal (RFA) form. If you request to appeal this determination you must submit a completed RFA form to the North Atlantic Division Office at the following address:

ATTN: Mr. James Haggerty, Regulatory Program Manager United States Army Corps of Engineers CENAD-PD-OR Fort Hamilton Military Community 301 General Lee Avenue Brooklyn, NY 11252-6700

Email: james.w.haggerty@usace.army.mil

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 C.F.R. part 331.5, and that it has been received by the Division Office within 60 days of the date of the NAP. Should you decide to submit an RFA form, it must be received at the above address by DATE (60 days). It is not necessary to submit an RFA form to the Division office if you do not object to the determination in this letter.

This jurisdictional determination is valid for a period of five (5) years from the date of this letter unless new information warrants revision prior to the expiration date. If you have any questions, please contact Audrey Cotnoir at 757-549-8819 or audrey.l.cotnoir@usace.army.mil.

Sincerely,

Cudrey d. Cotnoir

Audrey Cotnoir, PWS

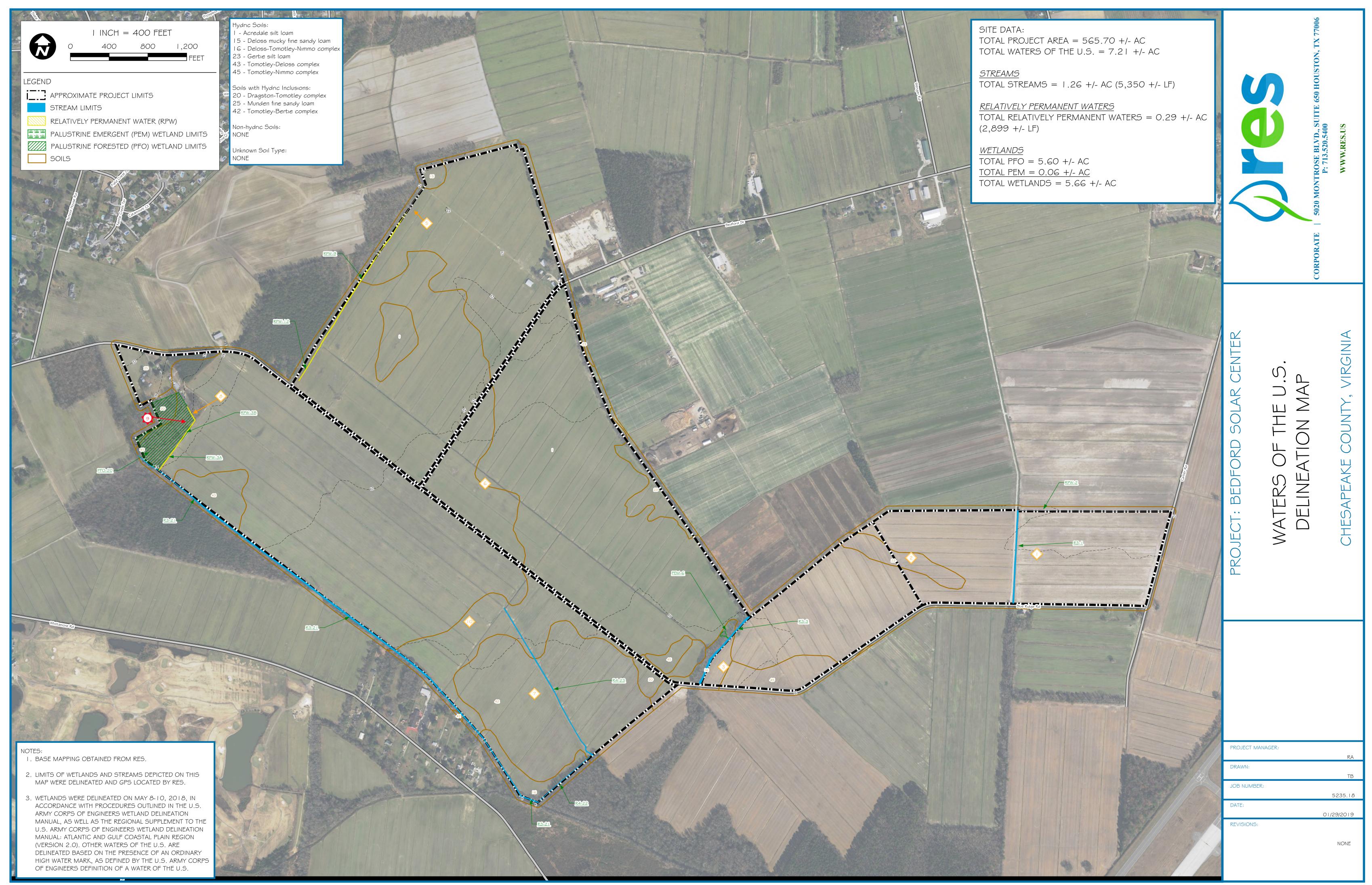
Project Manager

Eastern Virginia Regulatory Section

Enclosures:

Wetland/Waters Delineation Map Appeal Form Supplemental Preapplication Form Cc:

Virginia Department of Environmental Quality, ATTN: Sheri Kattan City of Chesapeake, ATTN: Dave Mergen RES, ATTN: Katie Arquiette



NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applie	cant: Bedford Solar Center, LLC	File Number: NAO-2018-01177	Date: 14 March 2019	
Attach	See Section below			
	INITIAL PROFFERED PERMIT (Standard Per	A		
	PROFFERED PERMIT (Standard Permit or Le	В		
	PERMIT DENIAL	С		
X	APPROVED JURISDICTIONAL DETERMIN	D		
	PRELIMINARY JURISDICTIONAL DETERM	E		

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at

http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/appeals.aspx or Corps regulations at 33 CFR Part 331.

- A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.
- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final
 authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your
 signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights
 to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.
- B: PROFFERED PERMIT: You may accept or appeal the permit
- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final
 authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your
 signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights
 to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.
- C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.
- D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.
- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.
- E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTION	ONS TO AN INITIAL PRO	FFERED PERMIT
REASONS FOR APPEAL OR OBJECTIONS: (Describ		
initial proffered permit in clear concise statements. You may attac		
or objections are addressed in the administrative record.)		•
ADDITIONAL INFORMATION: The appeal is limited to a review		
record of the appeal conference or meeting, and any supplemental		
clarify the administrative record. Neither the appellant nor the Con		
you may provide additional information to clarify the location of in		iministrative record.
POINT OF CONTACT FOR QUESTIONS OR INFOR		
If you have questions regarding this decision and/or the appeal	If you only have questions regard	ding the appeal process you may
process you may contact: U.S. Army Corps of Engineers, Norfolk District	also contact: Mr. James W. Haggerty	
ATTN: Audrey Cotnoir (CENAO-WR-R)	Regulatory Program Manager (CEN	(AD-PD-OR)
Great Bridge Reservation	U.S. Army Corps of Engineers	,
2509 Reservation Road	Fort Hamilton Military Community	
Chesapeake, Virginia 23322-5217 (757) 549-8819	301 General Lee Avenue Brooklyn, New York 11252-6700	
Email: Audrey.l.cotnoir@usace.army.mil	Telephone number: 347-370-4650	
RIGHT OF ENTRY: Your signature below grants the right of entry		l, and any government
consultants, to conduct investigations of the project site during the	course of the appeal process. You	
notice of any site investigation, and will have the opportunity to pa	articipate in all site investigations.	
	Date:	Telephone number:
Signature of appellant or agent.		



DEPARTMENT OF THE ARMY

US ARMY CORPS OF ENGINEERS
NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1011

March 14, 2019

Supplemental Preapplication Information

Project Number: NAO-2018-01177

1.	A search of the	Virginia Department (of Historic Resources	data reveale	ed the f	following:
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- ☐ No known historic properties are located on the property.
- ☑ The following known architectural resources are located on the property:
 - 131-6005, House, 1104 Bedford Street
 - 131-0192, 1637 Blue Ridge Road, 1645 Blue Ridge Road (Lambert Farms)
- □ The following known archaeological resources are located on the property:
 Numerous archeological sites are shown on the property, but all were determined ineligible for the National Register of Historic Properties by VDHR.
- ☐ The following known historic resources are located in the vicinity of the property (potential for effects to these resources from future development):

DHR ID	Address	Restricted	Property Names
131- 6012	1748 Blue Ridge Road	-	House, 1748 Blue Ridge Road (Function/Location)
131- 6005	1104 Bedford Street	-	House, 1104 Bedford Street (Function/Location)
131- 5994	1403 Whittamore Road	-	House, 1403 Whittamore Road (Function/Location)
131- 5993	1405 Whittamore Road	-	House, 1405 Whittamore Road (Function/Location)
131- 6013	1407 Whittamore Road	-	House, 1407 Whittamore Road (Function/Location)
131- 5992	1409 Whittamore Rd	-	House, 1409 Whittamore Rd (Function/Location)
131- 5991	1417 Whittamore Rd	-	House, 1417 Whittamore Rd (Function/Location)
131- 5990	1419 Whittamore Rd	-	House, 1419 Whittamore Rd (Function/Location)
131- 5989	1425 Whittamore Rd	-	House, 1425 Whittamore Rd (Function/Location)
131- 5987	1437 Whittamore Rd	-	House, 1437 Whittamore Rd (Function/Location)

131- 6014	1433 Whittamore Road	-	United House of Prayer for All People Cemetery (Current Name)
131- 5988	1439 Whittamore Rd	-	House, 1439 Whittamore Rd (Function/Location)
131- 5986	1441 Whittamore Rd	-	House, 1441 Whittamore Rd (Function/Location)
131- 5985	1445 Whittamore Rd	-	House, 1445 Whittamore Rd (Function/Location)
131- 5984	1451 Whittamore Rd	-	House, 1451 Whittamore Rd (Function/Location)
131- 5983	1449 Whittamore Rd	-	House, 1449 Whittamore Rd (Function/Location)
131- 5982	1453 Whittamore Rd	-	House, 1453 Whittamore Rd (Function/Location)
131- 5981	1457 Whittamore Rd	-	House, 1457 Whittamore Rd (Function/Location)
131- 5980	1461 Whittamore Rd	-	House, 1461 Whittamore Rd (Function/Location)
131- 5979	1463 Whittamore Rd	-	House, 1463 Whittamore Rd (Function/Location)
131- 6004	1032 Bedford Road	-	House, 1032 Bedford Street (Function/Location)
131- 5978	1469 Whittamore Rd	-	House, 1469 Whittamore Rd (Function/Location)
131- 5324	Lockhead Road	Unrestricted	Fentress Auxiliary Landing Field Historic District (Historic)
131- 5071	Blue Ridge Road, Centerville Turnpike, Fentress Road, Whittamore Road	Unrestricted	Blue Ridge/Fentress Historic District (Historic), Centerville-Fentress Historic District (Historic/Current), Centre Hill (Historic)
131- 0192	1637 Blue Ridge Road, 1645 Blue Ridge Road	-	House, 1637 Blue Ridge Road (Function/Location), Lambert Farms (Current)

NOTE:

- The information above is for planning purposes only. In most cases, the property has not been surveyed for historic resources. Undiscovered historic resources may be located on the subject property or adjacent properties and this supplemental information is not intended to satisfy the Corps' requirements under Section 106 of the National Historic Preservation Act (NHPA).
- 2) Prospective permittees should be aware that Section 110k of the NHPA (16 U.S.C. 470h-2(k)) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant.
- 2. A search of the data supplied by the U.S. Fish & Wildlife Service, the Virginia Department of Conservation and Recreation and the Virginia Department of Game and Inland Fisheries

rev	vealed the following:
	No known populations of threatened or endangered species are located on or within the vicinity of the subject property.
\boxtimes	The following federally-listed species may occur within the vicinity of the subject property: Northern Long-eared Bat, <i>Myotis septentrionalis</i> , Threatened
	The following state-listed (or other) species may occur within the vicinity of the subject property:

Please note this information is being provided to you based on the preliminary data you submitted to the Corps relative to project boundaries and project plans. Consequently, these findings and recommendations are subject to change if the project scope changes or new information becomes available and the accuracy of the data.

Wetland Delineation Report Site Information Summary

Fentress Substation - Coastal Virginia Offshore Wind Transmission Project Parcels 061000000952, 0610000000954, and 0610000000955 (46.5-acres; VEPCO)

City of Chesapeake, Virginia

Date

December 14, 2020

Latitude/ Longitude in Decimal Degrees using coordinate plane (NAD 1983) 36.690918, -76.190173

Has a previous delineation or JD been performed? If so please provide USACE **Project Number:** Unknown

Hydrologic Unit Code (HUC) 8-Digit HUC - 03010205

USGS Topographic Sheet

Fentress Quadrangle

Nearest Waterbody (example given)

Unnamed tributary to Pocaty River is located approximately 850 feet to the south.

Delineation Methods

Wetlands were delineated utilizing the 1987 United States Army Corps of Engineers (USACE) Wetlands Delineation Manual (Manual), the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (2nd Edition), and per recent guidance issued jointly by the U.S. Environmental Protection Agency and the USACE known as the Navigable Waters Protection Rule. Plant indicators were searched using the USDA NRCS Wetland Indicator Status Search tool at plants.usda.gov/core/wetlandsearch.

On-Site Investigation Date

Wetland boundary delineation and site data collection conducted on October 29, 30, and November 2, 2020.

Wetland Delineation Plan

The proposed wetland boundaries and Data Sampling Point locations are depicted on the attached Figure 7.

Wetland Investigation Results

Wetlands: Wetlands identified at the Site consist of approximately 16.31-acres of palustrine forested (PFO) wetlands and 2.86-acres of palustrine emergent (PEM) wetlands. Additional information is found in the attached Wetland Delineation Memo, dated November 6, 2020 and on the attached maps.

Stream Channels: No streams were identified within the project area.

Other Waters: Jurisdictional ditches totaling approximately 1,175 feet are located centrally along the edges of the existing developed substation and immediately adjacent to delineated wetlands at the Site. Additional information is found in the attached Wetland Delineation Memo, dated November 6, 2020 and on the attached maps.

Water bodies onsite identified as Section 10: No Section 10 waters were identified within the project area.

Uplands: The remainder of the project area was determined to be uplands. Please refer to the attached upland data forms and attached maps.

100-Year Floodplains

As depicted on the Federal Emergency Management Agency's (FEMA) on-line Flood Insurance Rate Maps # 5100340052D and 5100340053D, effective date 12/16/2014 the subject property lies in an area of minimal flood hazard (Zone X).

National Wetlands Inventory

The on-line National Wetland Inventory identifies PFO and PEM wetlands within the subject property as shown on the attached Figure 6.

USDA Soil Survey

The on-line USDA Natural Resource Conservation Service Soil Survey data for the Site is included and shown on Figure 2.



919 East Main Street Suite 1701 Richmond, VA 23219 Telephone: +1 (804) 253 1090 Fax: +1 (804) 253 1091

www.erm.com

Memo



То	Bob Bisha
From	Paul Leeger, Pat Robblee, Jon Berkin
Date	November 6, 2020
Reference	Coastal Virginia Offshore Wind Project
Subject	Wetland Delineation at Fentress Substation Property

Environmental Resources Management (ERM) conducted a wetland delineation at Dominion Energy Virginia's Fentress Substation property, which encompasses approximately 46.5-acres off Fentress Loop in the City of Chesapeake, Virginia. The portion of the parcel developed as an existing substation was not included in the delineation. The remainder of the parcel (the Site) consists of approximately 34.8-acres of forested land, maintained utility easements, and gravel access roads. The Site occurs within City of Chesapeake tax parcel 0610000000952. Access to the Site is via a gravel access road from Fentress Loop and through a city park along an existing transmission line easement. An aerial based map depicting the Site and results and select photos of the survey area are attached.

PROPERTY DESCRIPTION

The Site is in the Coastal Plain Province in Virginia's Tidewater region. The survey area consists of approximately 27.0-acres of mixed mature deciduous-coniferous forest and 7.8-acres of maintained easements adjacent to and surrounding the existing Fentress Substation. The Site also includes a network of excavated drainage ditches intended to improve drainage over the relatively flat landscape and a gravel access road. The forested areas are dominated by swamp chestnut oak (Quercus michauxii), loblolly pine (*Pinus taeda*), red maple (*Acer rubrum*), and sweetgum (*Liquidambar styraciflua*). The maintained easements are dominated by herbaceous plants including giant goldenrod (Solidago gigantea), sawtooth blackberry (*rubus argutus*), broomsedge bluestem (*Andropogon virginicus*), and spotted ladysthumb (*Polygonum persicaria*).

The Site falls on the U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle map Fentress, Virginia. The Site is largely located within the Albemarle watershed (Watershed Unit: 03010205).

METHODOLOGY

Waters of the U.S., including wetlands, are federally protected under Section 404 of the Clean Water Act (CWA). The definition of a wetland is "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas" (Code of Federal Regulations §230.3(t)).



November 6, 2020 Bob Bisha

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ERM identified and delineated wetlands and waters of the U.S. at the Site on October 28, 30, and November 2, 2020, in accordance with the three-parameter methodology outlined in the 1987 United States Army Corps of Engineers (USACE) Wetlands Delineation Manual (Manual), the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region, and per recent guidance issued jointly by the U.S. Environmental Protection Agency and the USACE known as the Navigable Waters Protection Rule.

An area is classified as a wetland based on the following three parameters as determined in the above references:

- The presence of hydrophytic vegetation Hydrophytic vegetation is determined by the dominant species present at any given data point, where each species is assigned a plant indicator status as to its preference/tolerance for wetland conditions. Data points having dominant species that are greater than 50 percent facultative or wetter are considered to meet the hydrophytic vegetation criterion.
- The presence of hydrology Each data point is evaluated for evidence of wetland hydrology or persistent saturation or inundation of soils. The Manual identifies both primary and secondary hydrologic indicators. One primary indicator or two secondary indicators must be observed for a sample point to meet the hydrology criterion. Indicators include saturated soils in the upper 12 inches, inundation, water marks, drift lines, sediment deposits, drainage patterns, oxidized root channels in the upper 12 inches, water-stained leaves, local soil survey data, and others.
- The presence of hydric soils Soil in each sample plot is sampled with a soil spade to a depth of at least 18 inches, or to the B horizon, whichever appears first. The delineator obtains a profile description and identifies hydric soil indicators based on soil texture(s) and soil color(s). Soil textures are determined by manual tactile sampling. Soil colors (in a moist condition) are compared to Munsell Soil-Color charts (2009 Edition, 2015 production year, Munsell Color, Grand Rapids, MI, USA) to assess hue, value, and chroma to determine if hydric characteristics are present.

To identify wetlands and waters within the Site, the area was traversed on foot. Data points were taken within the Site to verify or refute the presence of wetland soils, vegetation, and hydrology.

ERM utilized a Trimble GeoXT Global Positioning System to obtain coordinates for the wetland data points, wetland boundaries, and waterbody boundaries. This unit is capable of sub-meter accuracy (following post-processing and differential correction via a known base station) and allows the digital data to be incorporated into drawings for mapping/design purposes.

FINDINGS AND CONCLUSION

The field-based delineation identified approximately 19.17-acres of riparian wetlands and approximately 1,175 feet of presumed jurisdictional ditches within the Site (Figure 1). Wetlands identified at the Site consist of approximately 16.31-acres of palustrine forested (PFO) wetlands and 2.86-acres of palustrine emergent (PEM) wetlands as classified under the Cowardin Classification System. These features are all presumed to be jurisdictional with the USACE and the Virginia Department of Environmental Quality (DEQ).



November 6, 2020 Bob Bisha

Page 3 of 3

Common vegetation in the PFO wetlands includes swamp chestnut oak (Quercus michauxii), loblolly pine (*Pinus taeda*), red maple (*Acer rubrum*), sweetgum (*Liquidambar styraciflua*), sweetbay (Magnolia virginiana), giant cane (Arundinaria gigantea), and sensitive fern (*Onoclea sensibilis*). Common vegetation in the PEM wetlands includes giant goldenrod (Solidago gigantea), broomsedge bluestem (Andropogon virginicus), spotted ladysthumb (Polygonum persicaria). Soils in these wetlands exhibited multiple hydric soil indicators including: depleted below dark surface (A11), thick dark surface (A12), depleted matrix (F3), and redox dark surface (F6). Hydrology was evident in the oxidized rhizospheres in living roots, geomorphic position, FAC-neutral test, and saturated soils.

Although these findings were based upon a survey utilizing USACE-approved protocols, the USACE (Norfolk District) must make the official determinations on the presence or absence of jurisdictional wetlands and waterbodies on the Site through the jurisdictional determination process.

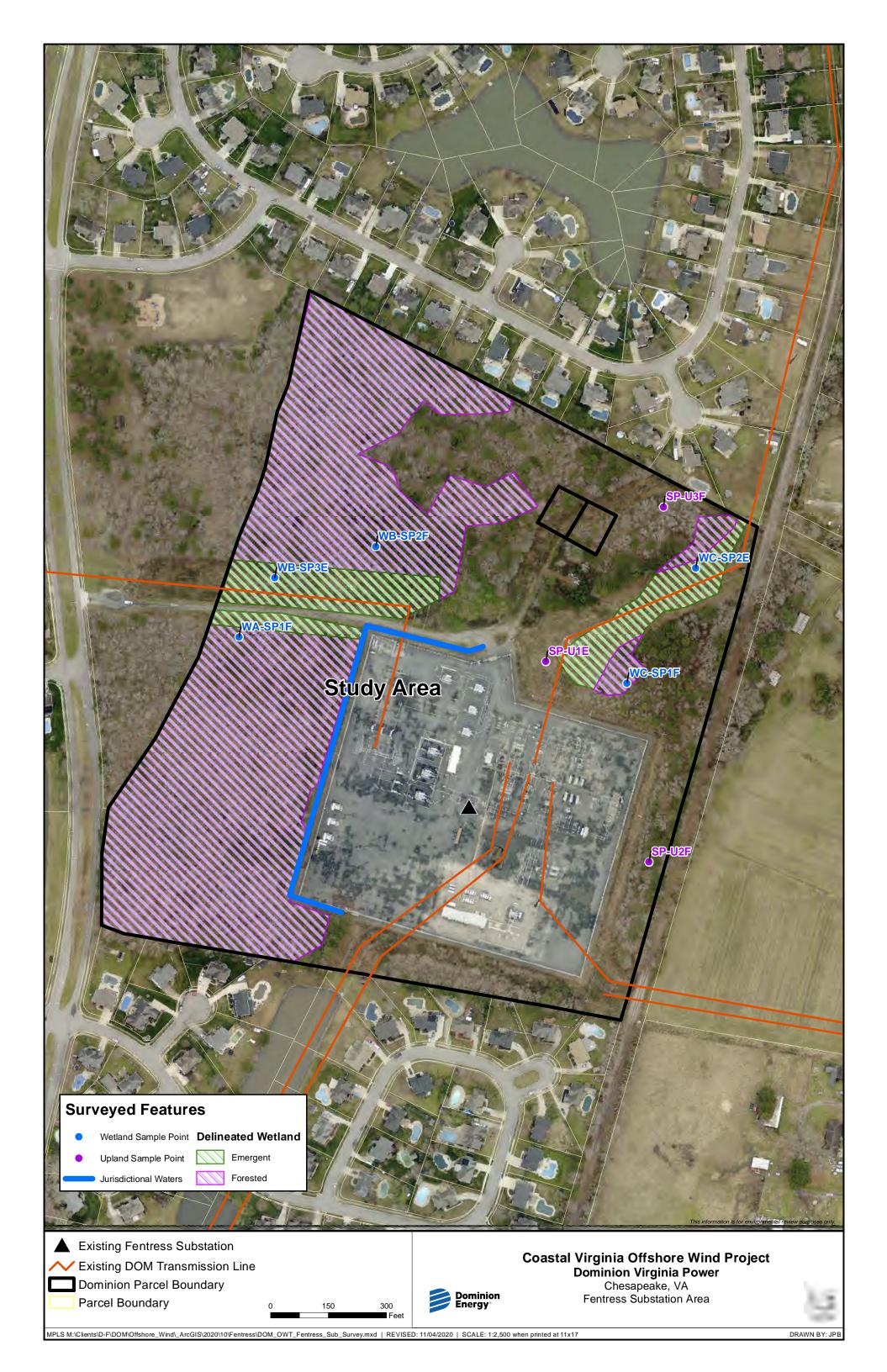




Photo 1: View looking east at palustrine forested (PFO) wetlands at the Site from wetland data point WA-SP1F.



Photo 2: View looking north at PFO wetlands at the Site from wetland data point WB-SP2F.

Appendix A Page 1



Photo 3: View looking north at palustrine emergent (PEM) wetlands at the Site from wetland data point WB-SP3E.



Photo 4: View looking west at PFO wetlands at the Site from wetland data point WB-SP2F.

Appendix A Page 2



Photo 5: View looking northeast at palustrine emergent (PEM) wetlands at the Site from wetland data point WC-SP2E.



Photo 6: View looking northeast at upland forest from data point SP-U2F.

Appendix A Page 3

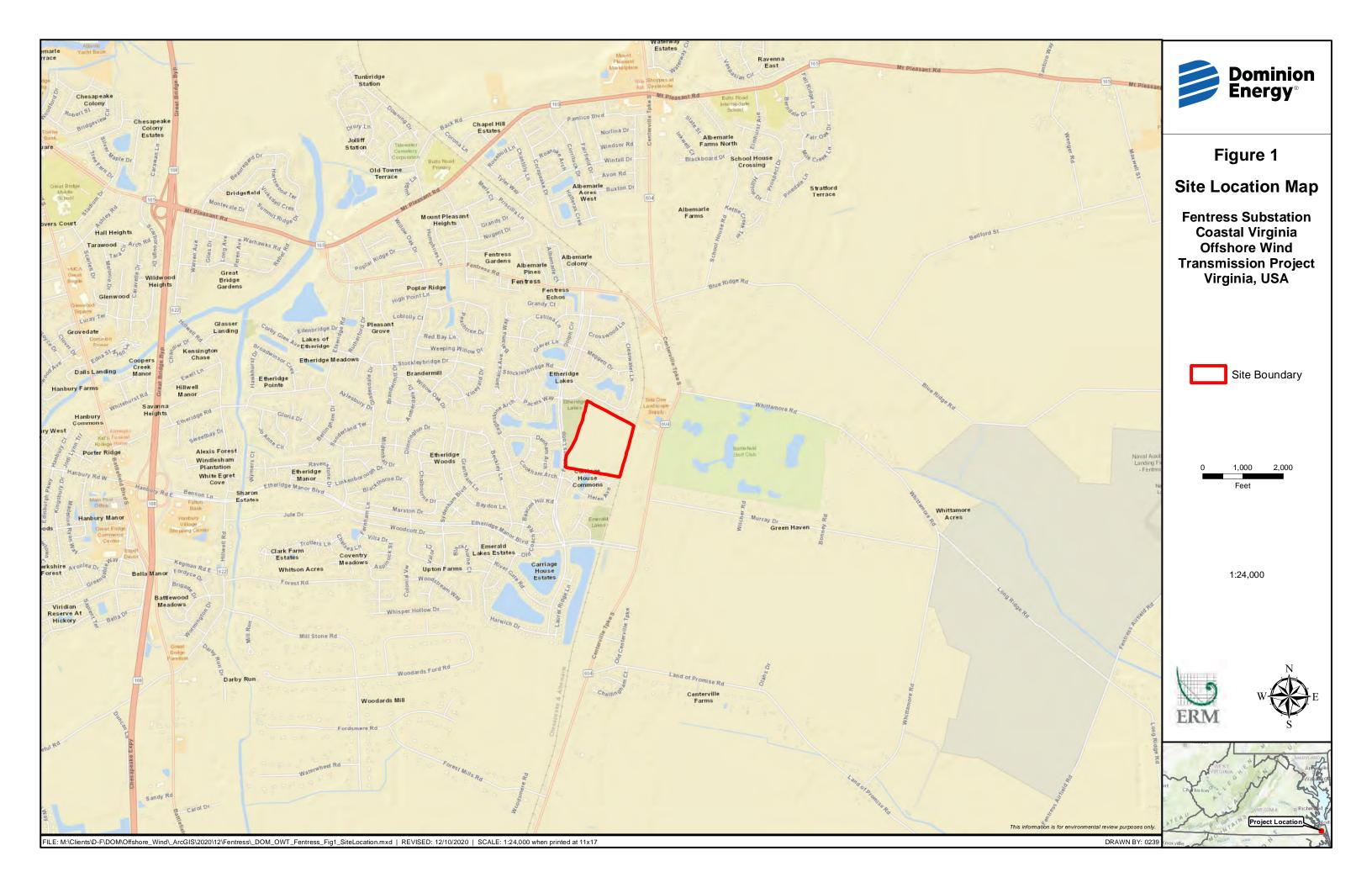


Photo 7: View of upland maintained easement north of the existing Fentress substation from upland data point SP-U1E.



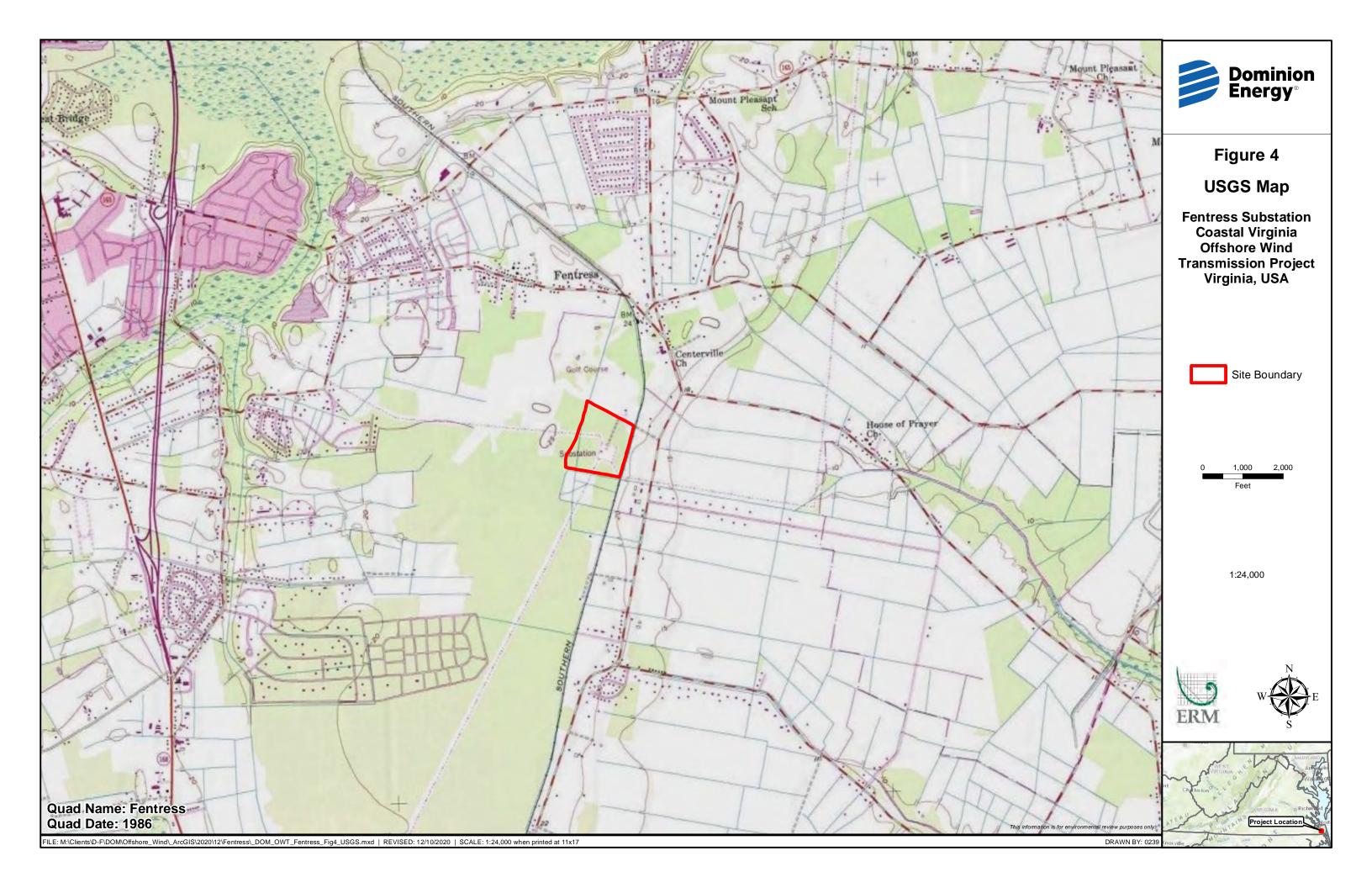
Photo 8: View looking north at upland forest from data point SP-U3F.

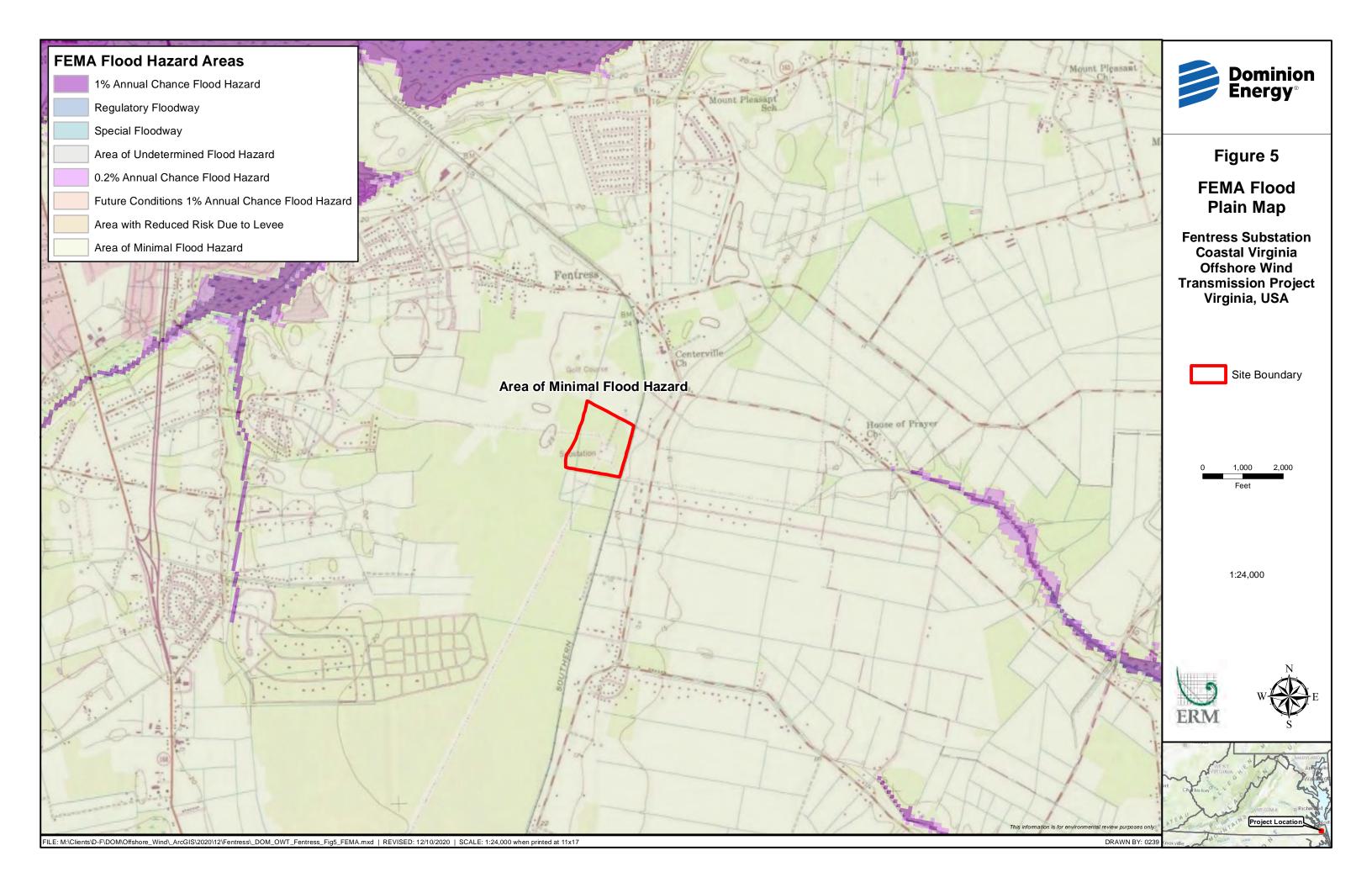
Appendix A















WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Fentress Substation Property	City/County: City o	f Chesapeake	Sampling Date: 10/30/2020		
Applicant/Owner: Dominion Energy Services		State: VA	Sampling Date: 10/30/2020 Sampling Point: WA-SP1F		
Investigator(s): Paul Leeger, Heather Mitchell		Range:	Camping Forms		
Landform (hillslope, terrace, etc.): Marine Terrace		e, convex, none): none	Slane (9/): 0		
Subregion (LRR or MLRA): T153A La			Datum: WGS84		
Soil Map Unit Name: Acredale Silt Loam		NWI classific			
Are climatic / hydrologic conditions on the site typical for this			/		
Are Vegetation, Soil, or Hydrology signature.	gnificantly disturbed? A	re "Normal Circumstances" p	present? Yes _ 🗸 _ No		
Are Vegetation, Soil, or Hydrology na	aturally problematic? (If	needed, explain any answe	rs in Remarks.)		
SUMMARY OF FINDINGS - Attach site map s	howing sampling poin	t locations, transects	, important features, etc.		
Lhydraphytic Voquetation Draggat?					
Hydrophytic Vegetation Present? Yes _ ✓ No Hydric Soil Present? Yes _ ✓ No	is the Samp	led Area	•		
Wetland Hydrology Present? Yes ✓ No		tland? Yes <u>Y</u>	No		
Remarks:					
HYDROLOGY					
Wetland Hydrology Indicators:		Secondary Indica	ators (minimum of two required)		
Primary Indicators (minimum of one is required; check all the	nat annly)	Surface Soil			
Surface Water (A1) Aquatic F					
	osits (B15) (LRR U)		Sparsely Vegetated Concave Surface (B8)Drainage Patterns (B10)		
	n Sulfide Odor (C1)		Moss Trim Lines (B16)		
	Rhizospheres along Living Ro				
	e of Reduced Iron (C4)	Crayfish Burrows (C8)			
Drift Deposits (B3) Recent Ir	on Reduction in Tilled Soils (C				
Algal Mat or Crust (B4) Thin Muc	k Surface (C7)	✓ Geomorphic Position (D2)			
	xplain in Remarks)	Shallow Aquitard (D3)			
Inundation Visible on Aerial Imagery (B7)		✓ FAC-Neutral			
Water-Stained Leaves (B9)		Sphagnum n	noss (D8) (LRR T, U)		
Field Observations: Surface Water Present? Yes No _ ✓ _ Depr	th (inches):				
Water Table Present? Yes No _ ✓ _ Dept					
Saturation Present? Yes No _ ✓ Depr		Wetland Hydrology Preser	nt? Yes V No		
(includes capillary fringe)			103 100		
Describe Recorded Data (stream gauge, monitoring well, a	erial photos, previous inspection	ons), if available:			
Remarks:					

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

50% of total cover: 37

Tree Stratum (Plot size: 30 ft

Sapling Stratum (Plot size: 30 ft 1. Liquidambar styraciflua

Shrub Stratum (Plot size: 30 ft 1 Liquidambar styraciflua

Herb Stratum (Plot size: 30 ft)

2. Magnolia virginiana

3. Quercus rubra

2. Acer rubrum

1. Arundinaria gigantea

Quercus michauxii

Pinus taeda

Acer rubrum

Quercus alba

5. Quercus rubra

50% of total cover: ⁹ 20% of total cover: ⁴

50% of total cover: 15 20% of total cover: 6

40 Yes

nes of pla	ants.		Sampling Point: WA-SP1F		
Absolute	Dominant	Indicator	Dominance Test worksheet:		
	Species?		Number of Dominant Species		
30	Yes	FACW	That Are OBL, FACW, or FAC: 10 (A)		
20	Yes	FAC	Total Number of Dominant		
20	Yes	FAC	Species Across All Strata: 10 (B)		
2	No	FACU	Percent of Dominant Species		
2	No	FACU	That Are OBL, FACW, or FAC: 100 (A/B)		
74	= Total Cov	er	Prevalence Index worksheet:		
20% of	total cover:	15	Total % Cover of: Multiply by:		
			OBL species 0 x 1 =		
10	Yes	FAC	FACW species 3 $x 2 = 20$		
5	Yes	FACW	FAC species 125 x 3 = 375		
3	No	FACU	FACU species $\frac{5}{}$ $x 4 = \frac{20}{}$		
	110	17100	UPL species 0 x 5 =		
			Column Totals: 133 (A) 415 (B)		
18	T-1-10		Prevalence Index = B/A = 2.96		
·	= Total Cov		Hydrophytic Vegetation Indicators:		
20% of	total cover:	4	1 - Rapid Test for Hydrophytic Vegetation		
00			2 - Dominance Test is >50%		
20	Yes	FAC	3 - Prevalence Index is ≤3.0¹		
10	Yes	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)		
			¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Five Vegetation Strata:		
30	= Total Cov	or	Definitions of Five vegetation Strata.		
	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).		
40	Yes	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.		
			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, <u>and</u> woody plants, except woody vines, less than approximately 3 ft (1 m) in height.			
			Woody vine – All woody vines, regardless of height.		
	= Total Cov total cover:				
5	Vaa	FAC			
5	Yes Yes	FAC			
	163	. 10			
			Hydrophytic		
10	= Total Cov	er	Visite de la constante de la c		
 20% of	total cover:	2	Present? Yes No No		

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

Woody Vine Stratum (Plot size: 30 ft)

50% of total cover: 0

50% of total cover: 5

1. Smilax rotundifolia

2. Vitis rotundifolia

SOIL Sampling Point: WA-SP1F

		e to the dep	th needed to docur			or confirm	n the absence	e of indicators.)
'	Depth Matrix (inches) Color (moist) %		Redox Features Color (moist) % Type ¹ Loc ²			Loc ²	Texture	Remarks
0-4	10 YR 2/1	100					Silt Loam	
4-7	10 YR 4/1	100		-			Loam	ORs
7-20	10 YR 4/1	90	10 YR 4/6	10	C	PL	SCL	
								·
<u></u>					-			
	-				<u> </u>		-	- <u> </u>
				-		. .		·
								·
			Reduced Matrix, MS			rains.		: PL=Pore Lining, M=Matrix.
-		icable to all	LRRs, unless other		•			s for Problematic Hydric Soils ³ :
Histosol	(A1) pipedon (A2)		Polyvalue Be Thin Dark Su					Muck (A9) (LRR O) Muck (A10) (LRR S)
	istic (A3)		Loamy Muck					ced Vertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)		Loamy Gleye			,		nont Floodplain Soils (F19) (LRR P, S, T)
	d Layers (A5)		✓ Depleted Ma	. ,				nalous Bright Loamy Soils (F20)
-	Bodies (A6) (LRR		Redox Dark	,	,			LRA 153B)
l '	ucky Mineral (A7) (I resence (A8) (LRR		Depleted Date Redox Depre		, ,			Parent Material (TF2) Shallow Dark Surface (TF12)
l '	uck (A9) (LRR P, T)	•	Marl (F10) (L		0)			r (Explain in Remarks)
	d Below Dark Surfa		Depleted Oc	hric (F11				
	ark Surface (A12)		Iron-Mangan					icators of hydrophytic vegetation and
	rairie Redox (A16) Mucky Mineral (S1)		A) Umbric Surfa Delta Ochric					etland hydrology must be present, lless disturbed or problematic.
-	Gleyed Matrix (S4)	(LIXIX 0, 3)	Reduced Ver					ness disturbed of problematic.
	Redox (S5)		Piedmont Flo					
	d Matrix (S6)		Anomalous E	Bright Loa	amy Soils	(F20) (MLF	RA 149A, 1530	C, 153D)
	rface (S7) (LRR P,							
	Layer (if observed							
Type: Depth (in	ches):						Hydric Soi	il Present? Yes V
Remarks:	ones).						Tiyano oo	in resent.
rtomano.								

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Fentress Substation Property	City/County: City of C	Chesapeake	Sampling Date: 10/30/2020
Applicant/Owner: Dominion Energy Services	City/County: City of C	State: VA	Sampling Point: WA-SP1F
Investigator(s): Paul Leeger, Heather Mitchell	inge:		
	Local relief (concave, c	-	Slope (%): 0
Subregion (LRR or MLRA): T153A Lat:	36.692157	-76.192490	
Soil Map Unit Name: Acredale Silt Loam	·	NWI classific	Datum
	,		
Are climatic / hydrologic conditions on the site typical for this ti			/
Are Vegetation, Soil, or Hydrology sign			present? Yes _ ✓ No
Are Vegetation, Soil, or Hydrology nate	rally problematic? (If ne	eeded, explain any answe	rs in Remarks.)
SUMMARY OF FINDINGS – Attach site map sh	owing sampling point l	ocations, transects	, important features, etc.
Hydrophytic Vegetation Present? Yes ✓ No _ Hydric Soil Present? Yes ✓ No _	is the Sampled		, No
Wetland Hydrology Present? Yes ✓ No		nd? Yes_▼	No
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indica	ators (minimum of two required)
Primary Indicators (minimum of one is required; check all tha	t apply)	Surface Soil	
Surface Water (A1) Aquatic Fa			getated Concave Surface (B8)
	sits (B15) (LRR U)	Drainage Pa	
	Sulfide Odor (C1)	Moss Trim L	
1	hizospheres along Living Roots		Water Table (C2)
Sediment Deposits (B2) Presence of	of Reduced Iron (C4)	Crayfish Bur	
Drift Deposits (B3) Recent Iron		isible on Aerial Imagery (C9)	
Algal Mat or Crust (B4) Thin Muck Surface (C7)		✓ Geomorphic	
Iron Deposits (B5) Other (Explain in Remarks)		Shallow Aqu	
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)		✓ FAC-Neutral	noss (D8) (LRR T, U)
Field Observations:		Opinagrium ii	1033 (D0) (EKK 1, 0)
Surface Water Present? Yes No _ ✓ _ Depth	(inches):		
Water Table Present? Yes No ✓ Depth			
Saturation Present? Yes No _ ✓ Depth		etland Hydrology Preser	nt? Yes ✔ No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Describe Recorded Data (stream gauge, monitoring well, aer	iai pnotos, previous inspections	s), if available:	
Remarks:			

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

50% of total cover: 37

Tree Stratum (Plot size: 30 ft

Sapling Stratum (Plot size: 30 ft 1. Liquidambar styraciflua

Shrub Stratum (Plot size: 30 ft 1 Liquidambar styraciflua

Herb Stratum (Plot size: 30 ft)

2. Magnolia virginiana

3. Quercus rubra

2. Acer rubrum

1. Arundinaria gigantea

Quercus michauxii

Pinus taeda

Acer rubrum

Quercus alba

5. Quercus rubra

50% of total cover: ⁹ 20% of total cover: ⁴

50% of total cover: 15 20% of total cover: 6

40 Yes

nes of pla	ants.		Sampling Point: WA-SP1F
Absolute	Dominant	Indicator	Dominance Test worksheet:
	Species?		Number of Dominant Species
30	Yes	FACW	That Are OBL, FACW, or FAC: 10 (A)
20	Yes	FAC	Total Number of Dominant
20	Yes	FAC	Species Across All Strata: 10 (B)
2	No	FACU	Percent of Dominant Species
2	No	FACU	That Are OBL, FACW, or FAC: 100 (A/B)
74	= Total Cov	er	Prevalence Index worksheet:
	total cover:		Total % Cover of: Multiply by:
			OBL species 0 x 1 =
10	Yes	FAC	FACW species 3 $x 2 = 20$
5	Yes	FACW	FAC species 125 x 3 = 375
3	No	FACU	FACU species $\frac{5}{}$ $x 4 = \frac{20}{}$
	110	17100	UPL species 0 x 5 =
			Column Totals: <u>133</u> (A) <u>415</u> (B)
18	T-1-10		Prevalence Index = B/A = 2.96
·	= Total Cov		Hydrophytic Vegetation Indicators:
20% of	total cover:		1 - Rapid Test for Hydrophytic Vegetation
20	V		2 - Dominance Test is >50%
20	Yes	FAC	3 - Prevalence Index is ≤3.0 ¹
10	Yes	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
			¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Five Vegetation Strata:
30	Total Cov	or	Definitions of Five vegetation Strata.
30 = Total Cover 20% of total cover: 6			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).
40	Yes	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.
			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, <u>and</u> woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
			Woody vine – All woody vines, regardless of height.
40 = Total Cover 20% of total cover: 0			
5	Vaa	FAC	
5	Yes Yes	FAC	
	163	. 10	
			Hydrophytic
10	= Total Cov	er	Visite de la constante de la c
 20% of	total cover:	2	Present? Yes No No

Remarks:	(If observed, list morphological adaptations bel		

Woody Vine Stratum (Plot size: 30 ft)

50% of total cover: 0

50% of total cover: 5

1. Smilax rotundifolia

2. Vitis rotundifolia

Profile Desc	ription: (Describe	to the dep	th needed to docur	nent the	indicator	or confirm	the absenc	e of indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4	10 YR 2/1	100		_			Silt Loam	
4-7	10 YR 4/1	100					Loam	ORs
7-20	10 YR 4/1	90	10 YR 4/6	10	С	PL	SCL	
			-					-
1Type: C-Co	ncentration D-Dec	oletion RM	=Reduced Matrix, M	S-Masko	– : ad Sand Gr	aine	² l ocation	n: PL=Pore Lining, M=Matrix.
			LRRs, unless other			airio.		rs for Problematic Hydric Soils ³ :
Histosol			Polyvalue Be		•	RRSTI		Muck (A9) (LRR O)
	pipedon (A2)		Thin Dark Su					Muck (A10) (LRR S)
Black His			Loamy Muck					iced Vertic (F18) (outside MLRA 150A,B)
Hydroge	n Sulfide (A4)		Loamy Gleye	ed Matrix	(F2)		Piedr	mont Floodplain Soils (F19) (LRR P, S, T)
Stratified	Layers (A5)		✓ Depleted Ma	trix (F3)			Anon	nalous Bright Loamy Soils (F20)
_	Bodies (A6) (LRR F		Redox Dark	,	,			LRA 153B)
	cky Mineral (A7) (L							Parent Material (TF2)
	esence (A8) (LRR U	J)	Redox Depre		F8)			Shallow Dark Surface (TF12)
	ck (A9) (LRR P, T) I Below Dark Surfac	co (Δ11)	Marl (F10) (L Depleted Oc		\ (MI DA 1	51)	Otne	r (Explain in Remarks)
	rk Surface (A12)	C (ATT)	Iron-Mangan				T) ³ Ind	licators of hydrophytic vegetation and
		MLRA 150	A) Umbric Surfa				•	etland hydrology must be present,
	lucky Mineral (S1) (Delta Ochric			,		nless disturbed or problematic.
Sandy G	leyed Matrix (S4)		Reduced Ve	rtic (F18)	(MLRA 15	0A, 150B)		
	edox (S5)		Piedmont Flo					
	Matrix (S6)		Anomalous E	Bright Loa	amy Soils (F20) (MLR	A 149A, 153	C, 153D)
	face (S7) (LRR P,							
	.ayer (if observed)):						
Type:								
	ches):						Hydric So	il Present? Yes V No No
Remarks:								

Project/Site: Fentress Substation Property	City/County: City of Ch	hesapeake	Sampling Date: 10/30/2020			
Applicant/Owner: Dominion Energy Services	City/County: City of Ch	State: VA	Sampling Point: WA-SP1F			
Investigator(s): Paul Leeger, Heather Mitchell	Section, Township, Ran					
	Local relief (concave, co	-	Slone (%): 0			
Subregion (LRR or MLRA): T153A La		76.192490	Slope (70)			
Soil Map Unit Name: Acredale Silt Loam	:: <u></u>	.ong:	PFO			
	/	NWI classific				
Are climatic / hydrologic conditions on the site typical for this			/			
Are Vegetation, Soil, or Hydrology sig			oresent? Yes _ V No			
Are Vegetation, Soil, or Hydrology na	turally problematic? (If nee	eded, explain any answe	rs in Remarks.)			
SUMMARY OF FINDINGS - Attach site map s	howing sampling point lo	ocations, transects	, important features, etc.			
Hydrophytic Vegetation Present? Hydric Soil Present? Yes ✓ No Yes ✓ No Wetland Hydrology Present? Yes ✓ No	within a Wetland		, No			
Wetland Hydrology Present? Yes ✓ No Remarks:						
HYDROLOGY						
Wetland Hydrology Indicators:		Secondary Indica	tors (minimum of two required)			
Primary Indicators (minimum of one is required; check all the	at apply)	Surface Soil				
Surface Water (A1) Aquatic F			getated Concave Surface (B8)			
	osits (B15) (LRR U)		Drainage Patterns (B10)			
	Sulfide Odor (C1)	Moss Trim Li				
Water Marks (B1) ✓ Oxidized	Rhizospheres along Living Roots	(C3) Dry-Season	Water Table (C2)			
Sediment Deposits (B2) Presence	of Reduced Iron (C4)	Crayfish Burrows (C8)				
Drift Deposits (B3) Recent Iro	on Reduction in Tilled Soils (C6)	Saturation Vi	sible on Aerial Imagery (C9)			
Algal Mat or Crust (B4) Thin Mucl	k Surface (C7)	✓ Geomorphic	Position (D2)			
	plain in Remarks)	Shallow Aqui				
Inundation Visible on Aerial Imagery (B7)		✓ FAC-Neutral				
Water-Stained Leaves (B9)		Sphagnum n	noss (D8) (LRR T, U)			
Field Observations:						
Surface Water Present? Yes No _ ✓ Dept						
Water Table Present? Yes No _ ✓ Dept						
Saturation Present? Yes No ✓ Dept (includes capillary fringe)	n (inches): Wet	es): Wetland Hydrology Present? Yes No				
Describe Recorded Data (stream gauge, monitoring well, as	rial photos, previous inspections)), if available:				
Remarks:						

20#		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft)		Species?		Number of Dominant Species
1. Quercus michauxii	30	Yes	FACW	That Are OBL, FACW, or FAC: 10 (A)
2. Pinus taeda	20	Yes	FAC	Total Number of Dominant
3. Acer rubrum	20	Yes	FAC	Species Across All Strata: 10 (B)
4. Quercus alba	2	No	FACU	Percent of Dominant Species
5. Quercus rubra	2	No	FACU	That Are OBL, FACW, or FAC: 100 (A/I
6				Prevalence Index worksheet:
		= Total Cov		Total % Cover of: Multiply by:
50% of total cover: 37	20% of	total cover	15	
Sapling Stratum (Plot size: 30 ft)				
1. Liquidambar styraciflua	10	Yes	FAC	FACW species $\frac{3}{125}$ $\times 2 = \frac{20}{375}$
2. Magnolia virginiana	5	Yes	FACW	FAC species $\frac{125}{5} \qquad x = 375$
3. Quercus rubra	3	No	FACU	FACU species $\frac{5}{0}$ $x = \frac{20}{0}$
4				01 L species x 3 =
5				Column Totals: <u>133</u> (A) <u>415</u> (B
6				Prevalence Index = B/A = 2.96
		= Total Cov	er	Hydrophytic Vegetation Indicators:
50% of total cover: 9				1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft)				2 - Dominance Test is >50%
1. Liquidambar styraciflua	20	Yes	FAC	✓ 3 - Prevalence Index is ≤3.0 ¹
2. Acer rubrum	10	Yes	FAC	1
3.				Problematic Hydrophytic Vegetation ¹ (Explain)
				1
4				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5				Definitions of Five Vegetation Strata:
6	30	T-1-1 O-1		Definitions of Five vegetation Strata:
500/ // 15		= Total Cov		Tree – Woody plants, excluding woody vines,
50% of total cover: 15	20% of	total cover	:	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: ^{30 ft}) 1. Arundinaria gigantea	40	Vaa	EAC)//	(7.5 only of larger in diameter at breast height (5511).
··-	- 40	res	FACW	Sapling – Woody plants, excluding woody vines,
2				approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
3				
4				Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
5				approximately 3 to 20 ft (1 to 6 ff) in fieight.
6				Herb – All herbaceous (non-woody) plants, including
7				herbaceous vines, regardless of size, <u>and</u> woody plants, except woody vines, less than approximately
8				3 ft (1 m) in height.
9				Woody vine – All woody vines, regardless of height.
10				woody ville – All woody villes, regardless of fleight.
11				
	40	= Total Cov	er er	
50% of total cover: 0	20% of	total cover	: 0	
Woody Vine Stratum (Plot size: 30 ft)				
1. Smilax rotundifolia	5	Yes	FAC	
2. Vitis rotundifolia	5	Yes	FAC	
3.				
4.				
5.				Hydrophytic
··	4.0	= Total Cov	/er	Hydrophytic Vegetation
		. 5.6. 550	~·	
50% of total cover: 5		total cover	. 2	Present? Yes V No No

Profile Desc	ription: (Describe	to the dep	th needed to docur	nent the	indicator	or confirm	the absenc	e of indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4	10 YR 2/1	100		_			Silt Loam	
4-7	10 YR 4/1	100					Loam	ORs
7-20	10 YR 4/1	90	10 YR 4/6	10	С	PL	SCL	
			-					-
1Type: C-Co	ncentration D-Dec	oletion RM	=Reduced Matrix, M	S-Masko	– : ad Sand Gr	aine	² l ocation	n: PL=Pore Lining, M=Matrix.
			LRRs, unless other			airio.		rs for Problematic Hydric Soils ³ :
Histosol			Polyvalue Be		•	RRSTI		Muck (A9) (LRR O)
	pipedon (A2)		Thin Dark Su					Muck (A10) (LRR S)
Black His			Loamy Muck					iced Vertic (F18) (outside MLRA 150A,B)
Hydroge	n Sulfide (A4)		Loamy Gleye	ed Matrix	(F2)		Piedr	mont Floodplain Soils (F19) (LRR P, S, T)
Stratified	Layers (A5)		✓ Depleted Ma	trix (F3)			Anon	nalous Bright Loamy Soils (F20)
_	Bodies (A6) (LRR F		Redox Dark	,	,			LRA 153B)
	cky Mineral (A7) (L							Parent Material (TF2)
	esence (A8) (LRR U	J)	Redox Depre		F8)			Shallow Dark Surface (TF12)
	ck (A9) (LRR P, T) I Below Dark Surfac	co (Δ11)	Marl (F10) (L Depleted Oc		\ (MI DA 1	51)	Otne	r (Explain in Remarks)
	rk Surface (A12)	C (ATT)	Iron-Mangan				T) ³ Ind	licators of hydrophytic vegetation and
		MLRA 150	A) Umbric Surfa				•	etland hydrology must be present,
	lucky Mineral (S1) (Delta Ochric			,		nless disturbed or problematic.
Sandy G	leyed Matrix (S4)		Reduced Ve	rtic (F18)	(MLRA 15	0A, 150B)		
	edox (S5)		Piedmont Flo					
	Matrix (S6)		Anomalous E	Bright Loa	amy Soils (F20) (MLR	A 149A, 153	C, 153D)
	face (S7) (LRR P,							
	.ayer (if observed)):						
Type:								
	ches):						Hydric So	il Present? Yes V No No
Remarks:								

Project/Site: Fentress Substation Property	City/County: City of Ch	hesapeake	Sampling Date: 10/30/2020			
Applicant/Owner: Dominion Energy Services	City/County: City of Ch	State: VA	Sampling Point: WA-SP1F			
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Subregion (LRR or MLRA): T153A La		76.192490	Slope (70)			
Soil Map Unit Name: Acredale Silt Loam	:: <u></u>	.ong:	PFO			
	/	NWI classific				
Are climatic / hydrologic conditions on the site typical for this			/			
Are Vegetation, Soil, or Hydrology sig			oresent? Yes _ V No			
Are Vegetation, Soil, or Hydrology na	turally problematic? (If nee	eded, explain any answe	rs in Remarks.)			
SUMMARY OF FINDINGS - Attach site map s	howing sampling point lo	ocations, transects	, important features, etc.			
Hydrophytic Vegetation Present? Hydric Soil Present? Yes ✓ No Yes ✓ No Wetland Hydrology Present? Yes ✓ No	within a Wetland		, No			
Wetland Hydrology Present? Yes ✓ No Remarks:						
HYDROLOGY						
Wetland Hydrology Indicators:		Secondary Indica	tors (minimum of two required)			
Primary Indicators (minimum of one is required; check all the	at apply)	Surface Soil				
Surface Water (A1) Aquatic F			getated Concave Surface (B8)			
	osits (B15) (LRR U)		Drainage Patterns (B10)			
	Sulfide Odor (C1)	Moss Trim Li				
Water Marks (B1) ✓ Oxidized	Rhizospheres along Living Roots	(C3) Dry-Season	Water Table (C2)			
Sediment Deposits (B2) Presence	of Reduced Iron (C4)	Crayfish Burrows (C8)				
Drift Deposits (B3) Recent Iro	on Reduction in Tilled Soils (C6)	Saturation Vi	sible on Aerial Imagery (C9)			
Algal Mat or Crust (B4) Thin Mucl	k Surface (C7)	✓ Geomorphic	Position (D2)			
	plain in Remarks)	Shallow Aqui				
Inundation Visible on Aerial Imagery (B7)		✓ FAC-Neutral				
Water-Stained Leaves (B9)		Sphagnum n	noss (D8) (LRR T, U)			
Field Observations:						
Surface Water Present? Yes No _ ✓ Dept						
Water Table Present? Yes No _ ✓ Dept						
Saturation Present? Yes No ✓ Dept (includes capillary fringe)	n (inches): Wet	es): Wetland Hydrology Present? Yes No				
Describe Recorded Data (stream gauge, monitoring well, as	rial photos, previous inspections)), if available:				
Remarks:						

20#		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft)		Species?		Number of Dominant Species
1. Quercus michauxii	30	Yes	FACW	That Are OBL, FACW, or FAC: 10 (A)
2. Pinus taeda	20	Yes	FAC	Total Number of Dominant
3. Acer rubrum	20	Yes	FAC	Species Across All Strata: 10 (B)
4. Quercus alba	2	No	FACU	Percent of Dominant Species
5. Quercus rubra	2	No	FACU	That Are OBL, FACW, or FAC: 100 (A/I
6				Prevalence Index worksheet:
		= Total Cov		Total % Cover of: Multiply by:
50% of total cover: 37	20% of	total cover	: 15	
Sapling Stratum (Plot size: 30 ft)				
1. Liquidambar styraciflua	10	Yes	FAC	FACW species $\frac{3}{125}$ $\times 2 = \frac{20}{375}$
2. Magnolia virginiana	5	Yes	FACW	FAC species $\frac{125}{5} \qquad x = 375$
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4				01 L species x 3 =
5				Column Totals: <u>133</u> (A) <u>415</u> (B
6				Prevalence Index = B/A = 2.96
		= Total Cov	/er	Hydrophytic Vegetation Indicators:
50% of total cover: 9				1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft)				2 - Dominance Test is >50%
1. Liquidambar styraciflua	20	Yes	FAC	✓ 3 - Prevalence Index is ≤3.0 ¹
2. Acer rubrum	10	Yes	FAC	1
3.				Problematic Hydrophytic Vegetation ¹ (Explain)
				1
4				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5				Definitions of Five Vegetation Strata:
6	30	T-1-1 O-1		Definitions of Five vegetation Strata:
500/ // 15		= Total Cov		Tree – Woody plants, excluding woody vines,
50% of total cover: 15	20% of	total cover	:	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: ^{30 ft}) 1. Arundinaria gigantea	40	Vaa	EAC)//	(7.5 only of larger in diameter at breast height (5511).
··-	- 40	res	FACW	Sapling – Woody plants, excluding woody vines,
2				approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
3				
4				Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
5				approximately 3 to 20 ft (1 to 6 ff) in fieight.
6				Herb – All herbaceous (non-woody) plants, including
7				herbaceous vines, regardless of size, <u>and</u> woody plants, except woody vines, less than approximately
8				3 ft (1 m) in height.
9				Woody vine – All woody vines, regardless of height.
10				woody ville – All woody villes, regardless of fleight.
11				
	40	= Total Cov	er er	
50% of total cover: 0	20% of	total cover	: 0	
Woody Vine Stratum (Plot size: 30 ft)				
1. Smilax rotundifolia	5	Yes	FAC	
2. Vitis rotundifolia	5	Yes	FAC	
3.				
4.				
5.				Hydrophytic
··	4.0	= Total Cov	/er	Hydrophytic Vegetation
		. 5.6. 550	~·	
50% of total cover: 5		total cover	. 2	Present? Yes V No No

Profile Desc	ription: (Describe	to the dep	th needed to docur	nent the	indicator	or confirm	the absenc	e of indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4	10 YR 2/1	100		_			Silt Loam	
4-7	10 YR 4/1	100					Loam	ORs
7-20	10 YR 4/1	90	10 YR 4/6	10	С	PL	SCL	
			-					-
1Type: C-Co	ncentration D-Dec	oletion RM	=Reduced Matrix, M	S-Masko	– : ad Sand Gr	aine	² l ocation	n: PL=Pore Lining, M=Matrix.
			LRRs, unless other			airio.		rs for Problematic Hydric Soils ³ :
Histosol			Polyvalue Be		•	RRSTI		Muck (A9) (LRR O)
	pipedon (A2)		Thin Dark Su					Muck (A10) (LRR S)
Black His			Loamy Muck					iced Vertic (F18) (outside MLRA 150A,B)
Hydroge	n Sulfide (A4)		Loamy Gleye	ed Matrix	(F2)		Piedr	mont Floodplain Soils (F19) (LRR P, S, T)
Stratified	Layers (A5)		✓ Depleted Ma	trix (F3)			Anon	nalous Bright Loamy Soils (F20)
_	Bodies (A6) (LRR F		Redox Dark	,	,			LRA 153B)
	cky Mineral (A7) (L							Parent Material (TF2)
	esence (A8) (LRR U	J)	Redox Depre		F8)			Shallow Dark Surface (TF12)
	ck (A9) (LRR P, T) I Below Dark Surfac	co (Δ11)	Marl (F10) (L Depleted Oc		\ (MI DA 1	51)	Otne	r (Explain in Remarks)
	rk Surface (A12)	C (ATT)	Iron-Mangan				T) ³ Ind	licators of hydrophytic vegetation and
		MLRA 150	A) Umbric Surfa				•	etland hydrology must be present,
	lucky Mineral (S1) (Delta Ochric			,		nless disturbed or problematic.
Sandy G	leyed Matrix (S4)		Reduced Ve	rtic (F18)	(MLRA 15	0A, 150B)		
	edox (S5)		Piedmont Flo					
	Matrix (S6)		Anomalous E	Bright Loa	amy Soils (F20) (MLR	A 149A, 153	C, 153D)
	face (S7) (LRR P,							
	.ayer (if observed)):						
Type:								
	ches):						Hydric So	il Present? Yes V No No
Remarks:								

Project/Site: Fentress Substation Property	City/County: City of Ch	hesapeake	Sampling Date: 10/30/2020			
Applicant/Owner: Dominion Energy Services	City/County: City of Ch	State: VA	Sampling Point: WA-SP1F			
Investigator(s): Paul Leeger, Heather Mitchell	Section, Township, Ran					
	Local relief (concave, co	-	Slone (%): 0			
Subregion (LRR or MLRA): T153A La		76.192490	Slope (70)			
Soil Map Unit Name: Acredale Silt Loam	:: <u></u>	.ong:	PFO			
	/	NWI classific				
Are climatic / hydrologic conditions on the site typical for this			/			
Are Vegetation, Soil, or Hydrology sig			oresent? Yes _ V No			
Are Vegetation, Soil, or Hydrology na	turally problematic? (If nee	eded, explain any answe	rs in Remarks.)			
SUMMARY OF FINDINGS - Attach site map s	howing sampling point lo	ocations, transects	, important features, etc.			
Hydrophytic Vegetation Present? Hydric Soil Present? Yes ✓ No Yes ✓ No Wetland Hydrology Present? Yes ✓ No	within a Wetland		, No			
Wetland Hydrology Present? Yes ✓ No Remarks:						
HYDROLOGY						
Wetland Hydrology Indicators:		Secondary Indica	tors (minimum of two required)			
Primary Indicators (minimum of one is required; check all the	at apply)	Surface Soil				
Surface Water (A1) Aquatic F			getated Concave Surface (B8)			
	osits (B15) (LRR U)		Drainage Patterns (B10)			
	Sulfide Odor (C1)	Moss Trim Li				
Water Marks (B1) ✓ Oxidized	Rhizospheres along Living Roots	(C3) Dry-Season	Water Table (C2)			
Sediment Deposits (B2) Presence	of Reduced Iron (C4)	Crayfish Burrows (C8)				
Drift Deposits (B3) Recent Iro	on Reduction in Tilled Soils (C6)	Saturation Vi	sible on Aerial Imagery (C9)			
Algal Mat or Crust (B4) Thin Mucl	k Surface (C7)	✓ Geomorphic	Position (D2)			
	plain in Remarks)	Shallow Aqui				
Inundation Visible on Aerial Imagery (B7)		✓ FAC-Neutral				
Water-Stained Leaves (B9)		Sphagnum n	noss (D8) (LRR T, U)			
Field Observations:						
Surface Water Present? Yes No _ ✓ Dept						
Water Table Present? Yes No _ ✓ Dept						
Saturation Present? Yes No ✓ Dept (includes capillary fringe)	n (inches): Wet	es): Wetland Hydrology Present? Yes No				
Describe Recorded Data (stream gauge, monitoring well, as	rial photos, previous inspections)), if available:				
Remarks:						

20#		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft)		Species?		Number of Dominant Species
1. Quercus michauxii	30	Yes	FACW	That Are OBL, FACW, or FAC: 10 (A)
2. Pinus taeda	20	Yes	FAC	Total Number of Dominant
3. Acer rubrum	20	Yes	FAC	Species Across All Strata: 10 (B)
4. Quercus alba	2	No	FACU	Percent of Dominant Species
5. Quercus rubra	2	No	FACU	That Are OBL, FACW, or FAC: 100 (A/I
6				Prevalence Index worksheet:
		= Total Cov		Total % Cover of: Multiply by:
50% of total cover: 37	20% of	total cover	: 15	
Sapling Stratum (Plot size: 30 ft)				
1. Liquidambar styraciflua	10	Yes	FAC	FACW species $\frac{3}{125}$ $\times 2 = \frac{20}{375}$
2. Magnolia virginiana	5	Yes	FACW	FAC species $\frac{125}{5}$ $x = 375$
3. Quercus rubra	3	No	FACU	FACU species $\frac{5}{0}$ $x = \frac{20}{0}$
4				01 L species x 3 =
5				Column Totals: <u>133</u> (A) <u>415</u> (B
6				Prevalence Index = B/A = 2.96
		= Total Cov	er	Hydrophytic Vegetation Indicators:
50% of total cover: 9				1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft)				2 - Dominance Test is >50%
1. Liquidambar styraciflua	20	Yes	FAC	✓ 3 - Prevalence Index is ≤3.0 ¹
2. Acer rubrum	10	Yes	FAC	1
3.				Problematic Hydrophytic Vegetation ¹ (Explain)
				1
4				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5				Definitions of Five Vegetation Strata:
6	30	T-1-1 O-1		Definitions of Five vegetation Strata:
500/ // 15		= Total Cov		Tree – Woody plants, excluding woody vines,
50% of total cover: 15	20% of	total cover	:	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: ^{30 ft}) 1. Arundinaria gigantea	40	Vaa	EAC)//	(7.5 only of larger in diameter at breast height (5511).
··-	- 40	res	FACW	Sapling – Woody plants, excluding woody vines,
2				approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
3				
4				Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
5				approximately 3 to 20 ft (1 to 6 ff) in fieight.
6				Herb – All herbaceous (non-woody) plants, including
7				herbaceous vines, regardless of size, <u>and</u> woody plants, except woody vines, less than approximately
8				3 ft (1 m) in height.
9				Woody vine – All woody vines, regardless of height.
10				woody ville – All woody villes, regardless of fleight.
11				
	40	= Total Cov	er er	
50% of total cover: 0	20% of	total cover	: 0	
Woody Vine Stratum (Plot size: 30 ft)				
1. Smilax rotundifolia	5	Yes	FAC	
2. Vitis rotundifolia	5	Yes	FAC	
3.				
4.				
5.				Hydrophytic
··	4.0	= Total Cov	/er	Hydrophytic Vegetation
		. 5.0. 500	~·	
50% of total cover: 5		total cover	. 2	Present? Yes V No No

Profile Desc	ription: (Describe	to the dep	th needed to docur	nent the	indicator	or confirm	the absenc	e of indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4	10 YR 2/1	100		_			Silt Loam	
4-7	10 YR 4/1	100					Loam	ORs
7-20	10 YR 4/1	90	10 YR 4/6	10	С	PL	SCL	
			-					-
1Type: C-Co	ncentration D-Dec	oletion RM	=Reduced Matrix, M	S-Masko	– : ad Sand Gr	aine	² l ocation	n: PL=Pore Lining, M=Matrix.
			LRRs, unless other			airio.		rs for Problematic Hydric Soils ³ :
Histosol			Polyvalue Be		•	RRSTI		Muck (A9) (LRR O)
	pipedon (A2)		Thin Dark Su					Muck (A10) (LRR S)
Black His			Loamy Muck					iced Vertic (F18) (outside MLRA 150A,B)
Hydroge	n Sulfide (A4)		Loamy Gleye	ed Matrix	(F2)		Piedr	mont Floodplain Soils (F19) (LRR P, S, T)
Stratified	Layers (A5)		✓ Depleted Ma	trix (F3)			Anon	nalous Bright Loamy Soils (F20)
_	Bodies (A6) (LRR F		Redox Dark	,	,			LRA 153B)
	cky Mineral (A7) (L							Parent Material (TF2)
	esence (A8) (LRR U	J)	Redox Depre		F8)			Shallow Dark Surface (TF12)
	ck (A9) (LRR P, T) I Below Dark Surfac	co (Δ11)	Marl (F10) (L Depleted Oc		\ (MI DA 1	51)	Otne	r (Explain in Remarks)
	rk Surface (A12)	C (ATT)	Iron-Mangan				T) ³ Ind	licators of hydrophytic vegetation and
		MLRA 150	A) Umbric Surfa				•	etland hydrology must be present,
	lucky Mineral (S1) (Delta Ochric			,		nless disturbed or problematic.
Sandy G	leyed Matrix (S4)		Reduced Ve	rtic (F18)	(MLRA 15	0A, 150B)		
	edox (S5)		Piedmont Flo					
	Matrix (S6)		Anomalous E	Bright Loa	amy Soils (F20) (MLR	A 149A, 153	C, 153D)
	face (S7) (LRR P,							
	.ayer (if observed)):						
Type:								
	ches):						Hydric So	il Present? Yes V No No
Remarks:								

Project/Site: Fentress Substation Property	City/County: City of Ch	hesapeake	Sampling Date: 10/30/2020			
Applicant/Owner: Dominion Energy Services	City/County: City of Ch	State: VA	Sampling Point: WA-SP1F			
Investigator(s): Paul Leeger, Heather Mitchell	Section, Township, Ran					
	Local relief (concave, co	-	Slone (%): 0			
Subregion (LRR or MLRA): T153A La		76.192490	Slope (70)			
Soil Map Unit Name: Acredale Silt Loam	:: <u></u>	.ong:	PFO			
	/	NWI classific				
Are climatic / hydrologic conditions on the site typical for this			/			
Are Vegetation, Soil, or Hydrology sig			oresent? Yes _ V No			
Are Vegetation, Soil, or Hydrology na	turally problematic? (If nee	eded, explain any answe	rs in Remarks.)			
SUMMARY OF FINDINGS - Attach site map s	howing sampling point lo	ocations, transects	, important features, etc.			
Hydrophytic Vegetation Present? Hydric Soil Present? Yes ✓ No Yes ✓ No Wetland Hydrology Present? Yes ✓ No	within a Wetland		, No			
Wetland Hydrology Present? Yes ✓ No Remarks:						
HYDROLOGY						
Wetland Hydrology Indicators:		Secondary Indica	tors (minimum of two required)			
Primary Indicators (minimum of one is required; check all the	at apply)	Surface Soil				
Surface Water (A1) Aquatic F			getated Concave Surface (B8)			
	osits (B15) (LRR U)		Drainage Patterns (B10)			
	Sulfide Odor (C1)	Moss Trim Li				
Water Marks (B1) ✓ Oxidized	Rhizospheres along Living Roots	(C3) Dry-Season	Water Table (C2)			
Sediment Deposits (B2) Presence	of Reduced Iron (C4)	Crayfish Burrows (C8)				
Drift Deposits (B3) Recent Iro	on Reduction in Tilled Soils (C6)	Saturation Vi	sible on Aerial Imagery (C9)			
Algal Mat or Crust (B4) Thin Mucl	k Surface (C7)	✓ Geomorphic	Position (D2)			
	plain in Remarks)	Shallow Aqui				
Inundation Visible on Aerial Imagery (B7)		✓ FAC-Neutral				
Water-Stained Leaves (B9)		Sphagnum n	noss (D8) (LRR T, U)			
Field Observations:						
Surface Water Present? Yes No _ ✓ Dept						
Water Table Present? Yes No _ ✓ Dept						
Saturation Present? Yes No ✓ Dept (includes capillary fringe)	n (inches): Wet	es): Wetland Hydrology Present? Yes No				
Describe Recorded Data (stream gauge, monitoring well, as	rial photos, previous inspections)), if available:				
Remarks:						

20#		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft)		Species?		Number of Dominant Species
1. Quercus michauxii	30	Yes	FACW	That Are OBL, FACW, or FAC: 10 (A)
2. Pinus taeda	20	Yes	FAC	Total Number of Dominant
3. Acer rubrum	20	Yes	FAC	Species Across All Strata: 10 (B)
4. Quercus alba	2	No	FACU	Percent of Dominant Species
5. Quercus rubra	2	No	FACU	That Are OBL, FACW, or FAC: 100 (A/I
6				Prevalence Index worksheet:
		= Total Cov		Total % Cover of: Multiply by:
50% of total cover: 37	20% of	total cover	15	
Sapling Stratum (Plot size: 30 ft)				
1. Liquidambar styraciflua	10	Yes	FAC	FACW species $\frac{3}{125}$ $\times 2 = \frac{20}{375}$
2. Magnolia virginiana	5	Yes	FACW	FAC species $\frac{125}{5}$ $x = 375$
3. Quercus rubra	3	No	FACU	FACU species $\frac{5}{0}$ $x = \frac{20}{0}$
4				01 L species x 3 =
5				Column Totals: <u>133</u> (A) <u>415</u> (B
6				Prevalence Index = B/A = 2.96
		= Total Cov	er	Hydrophytic Vegetation Indicators:
50% of total cover: 9				1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft)				2 - Dominance Test is >50%
1. Liquidambar styraciflua	20	Yes	FAC	✓ 3 - Prevalence Index is ≤3.0 ¹
2. Acer rubrum	10	Yes	FAC	1
3.				Problematic Hydrophytic Vegetation ¹ (Explain)
				1
4				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5				Definitions of Five Vegetation Strata:
6	30	T-1-1 O-1		Definitions of Five vegetation Strata:
500/ // 15		= Total Cov		Tree – Woody plants, excluding woody vines,
50% of total cover: 15	20% of	total cover	:	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: ^{30 ft}) 1. Arundinaria gigantea	40	Vaa	EAC)//	(7.5 only of larger in diameter at breast height (5511).
··-	- 40	res	FACW	Sapling – Woody plants, excluding woody vines,
2				approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
3				
4				Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
5				approximately 3 to 20 ft (1 to 6 ff) in fieight.
6				Herb – All herbaceous (non-woody) plants, including
7				herbaceous vines, regardless of size, <u>and</u> woody plants, except woody vines, less than approximately
8				3 ft (1 m) in height.
9				Woody vine – All woody vines, regardless of height.
10				woody ville – All woody villes, regardless of fleight.
11				
	40	= Total Cov	er er	
50% of total cover: 0	20% of	total cover	: 0	
Woody Vine Stratum (Plot size: 30 ft)				
1. Smilax rotundifolia	5	Yes	FAC	
2. Vitis rotundifolia	5	Yes	FAC	
3.				
4.				
5.				Hydrophytic
··	4.0	= Total Cov	/er	Hydrophytic Vegetation
		. 5.0. 500	~·	
50% of total cover: 5		total cover	. 2	Present? Yes V No No

Profile Desc	ription: (Describe	to the dep	th needed to docur	nent the	indicator	or confirm	n the absenc	e of indicators.)		
Depth	Matrix			x Feature						
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks		
0-4	10 YR 2/1	100		_			Silt Loam			
4-7	10 YR 4/1	100					Loam	ORs		
7-20	10 YR 4/1	90	10 YR 4/6	10	С	PL	SCL			
			-				-			
							-			
1Type: C-Co	ncentration D-Der	oletion RM	=Reduced Matrix, M	S-Masko	– : ad Sand Gr	aine	² l ocation	n: PL=Pore Lining, M=Matrix.		
			LRRs, unless other			airio.		rs for Problematic Hydric Soils ³ :		
Histosol			Polyvalue Be		•	RRSTI		Muck (A9) (LRR O)		
	pipedon (A2)		Thin Dark Su					Muck (A10) (LRR S)		
Black His			Loamy Muck					Reduced Vertic (F18) (outside MLRA 150A,B)		
Hydroge	n Sulfide (A4)		Loamy Gleye	ed Matrix	(F2)		Piedr	mont Floodplain Soils (F19) (LRR P, S, T)		
Stratified	Layers (A5)		✓ Depleted Ma	trix (F3)			Anon	nalous Bright Loamy Soils (F20)		
_	Bodies (A6) (LRR F		Redox Dark	,	,			LRA 153B)		
	cky Mineral (A7) (L							Parent Material (TF2)		
	esence (A8) (LRR L	J)	Redox Depre		F8)			Shallow Dark Surface (TF12)		
	ck (A9) (LRR P, T) I Below Dark Surfac	co (Δ11)	Marl (F10) (L Depleted Oc		\ (MI DA 1	51)	Otne	r (Explain in Remarks)		
	rk Surface (A12)	C (ATT)	Iron-Mangan				T) ³ Ind	licators of hydrophytic vegetation and		
		MLRA 150	A) Umbric Surfa				•	etland hydrology must be present,		
	lucky Mineral (S1) (Delta Ochric			,		nless disturbed or problematic.		
Sandy G	leyed Matrix (S4)		Reduced Ve	rtic (F18)	(MLRA 15	0A, 150B)				
	edox (S5)		Piedmont Flo							
	Matrix (S6)		Anomalous E	Bright Loa	amy Soils (F20) (MLR	A 149A, 153	C, 153D)		
	face (S7) (LRR P,						1			
	.ayer (if observed)):								
Type:										
	ches):						Hydric So	il Present? Yes V No No		
Remarks:										

Project/Site: Fentress Substation Property	City/County: City of C	Chesapeake	Sampling Date: 10/30/2020				
Applicant/Owner: Dominion Energy Services		State: VA	Sampling Date: 10/30/2020 Sampling Point: WA-SP1F				
Investigator(s): Paul Leeger, Heather Mitchell		Section, Township, Range:					
	Local relief (concave, c	-	Slope (%): 0				
Subregion (LRR or MLRA): T153A Lat: 3	36.692157	-76.192490					
Soil Map Unit Name: Acredale Silt Loam	'	NWI classific	ation: PFO				
	,						
Are climatic / hydrologic conditions on the site typical for this time			/				
Are Vegetation, Soil, or Hydrology signif			oresent? Yes _ 🗸 No				
Are Vegetation, Soil, or Hydrology natura	ally problematic? (If ne	eeded, explain any answe	rs in Remarks.)				
SUMMARY OF FINDINGS - Attach site map sho	wing sampling point le	ocations, transects	, important features, etc.				
Hydrophytic Vegetation Present? Yes ✓ No			,				
Hydric Soil Present? Yes _ ✓ No _ Wetland Hydrology Present? Yes _ ✓ No _		nd? Yes <u>▼</u>	No				
Remarks:							
HYDROLOGY							
Wetland Hydrology Indicators:		Secondary Indica	tors (minimum of two required)				
Primary Indicators (minimum of one is required; check all that a	apply)	Surface Soil					
Surface Water (A1) Aquatic Faur			Sparsely Vegetated Concave Surface (B8)				
	s (B15) (LRR U)		Drainage Patterns (B10)				
Saturation (A3) Hydrogen St	ulfide Odor (C1)		Moss Trim Lines (B16)				
Water Marks (B1) Oxidized Rhi	izospheres along Living Roots	s (C3) Dry-Season	Dry-Season Water Table (C2)				
	Reduced Iron (C4)		Crayfish Burrows (C8)				
	Reduction in Tilled Soils (C6)		Saturation Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4) Thin Muck S	` '	✓ Geomorphic Position (D2)					
Iron Deposits (B5) Other (Expla Inundation Visible on Aerial Imagery (B7)	in in Remarks)	Shallow Aquitard (D3) ✓ FAC-Neutral Test (D5)					
Water-Stained Leaves (B9)		Sphagnum moss (D8) (LRR T, U)					
Field Observations:		<u> </u>	(2.0) (2 .000 1, 0)				
Surface Water Present? Yes No _ ✓ _ Depth (i	nches):						
Water Table Present? Yes No _ ✓ Depth (i							
Saturation Present? Yes No _ ✓ Depth (i	nches): We	etland Hydrology Preser	it? Yes No				
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aeria	I photos previous inspections	s) if available:					
Describe Necorded Data (stream gauge, monitoring well, acria	r priotos, previous mapeetions	o, ii avallabic.					
Remarks:							

20#		Dominant		Dominance Test worksheet:		
Tree Stratum (Plot size: 30 ft)		Species?		Number of Dominant Species		
1. Quercus michauxii	30	Yes	FACW	That Are OBL, FACW, or FAC: 10 (A)		
2. Pinus taeda	20	Yes	FAC	Total Number of Dominant		
3. Acer rubrum	20	Yes	FAC	Species Across All Strata: 10 (B)		
4. Quercus alba	2	No	FACU	Percent of Dominant Species		
5. Quercus rubra	2	No	FACU	That Are OBL, FACW, or FAC: 100 (A/I		
6				Prevalence Index worksheet:		
		= Total Cov		Total % Cover of: Multiply by:		
50% of total cover: 37	20% of	total cover	: 15			
Sapling Stratum (Plot size: 30 ft)						
1. Liquidambar styraciflua	10	Yes	FAC	FACW species $\frac{3}{125}$ $\times 2 = \frac{20}{375}$		
2. Magnolia virginiana	5	Yes	FACW	FAC species $\frac{125}{5}$ $x = 375$		
3. Quercus rubra	3	No	FACU	FACU species $\frac{5}{0}$ $x = \frac{20}{0}$		
4				01 L species x 3 =		
5				Column Totals: <u>133</u> (A) <u>415</u> (B		
6				Prevalence Index = B/A = 2.96		
		= Total Cov	/er	Hydrophytic Vegetation Indicators:		
50% of total cover: 9				1 - Rapid Test for Hydrophytic Vegetation		
Shrub Stratum (Plot size: 30 ft)				2 - Dominance Test is >50%		
1. Liquidambar styraciflua	20	Yes	FAC	✓ 3 - Prevalence Index is ≤3.0 ¹		
2. Acer rubrum	10	Yes	FAC	1 		
3.				Problematic Hydrophytic Vegetation ¹ (Explain)		
				1		
4				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
5				' '		
6	30	T-1-1 O-1		Definitions of Five Vegetation Strata:		
500/ // 15		= Total Cov		Tree – Woody plants, excluding woody vines,		
50% of total cover: 15	20% of	total cover	:	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: ^{30 ft}) 1. Arundinaria gigantea	40	Vaa	EAC)//	(7.5 only of larger in diameter at breast height (5511).		
··-	- 40	res	FACW	Sapling – Woody plants, excluding woody vines,		
2				approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.		
3						
4				Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.		
5				approximately 3 to 20 ft (1 to 6 ff) in fieight.		
6				Herb – All herbaceous (non-woody) plants, including		
7				herbaceous vines, regardless of size, <u>and</u> woody plants, except woody vines, less than approximately		
8				3 ft (1 m) in height.		
9				Woody vine – All woody vines, regardless of height.		
10				woody ville – All woody villes, regardless of fleight.		
11						
	40	= Total Cov	er er			
50% of total cover: 0	20% of	total cover	: 0			
Woody Vine Stratum (Plot size: 30 ft)						
1. Smilax rotundifolia	5	Yes	FAC			
2. Vitis rotundifolia	5	Yes	FAC			
3.						
4.						
5.				Hydrophytic		
··	10 = Total Cover			Hydrophytic Vegetation Present? Yes No No		
	= 10tal 00vcl					
50% of total cover: 5		total cover	. 2	Present? Yes V No No		

Profile Desc	ription: (Describe	to the dep	th needed to docur	nent the	indicator	or confirm	n the absenc	e of indicators.)		
Depth	Matrix			x Feature						
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks		
0-4	10 YR 2/1	100		_			Silt Loam			
4-7	10 YR 4/1	100					Loam	ORs		
7-20	10 YR 4/1	90	10 YR 4/6	10	С	PL	SCL			
			-				-			
							-			
1Type: C-Co	ncentration D-Der	oletion RM	=Reduced Matrix, M	S-Masko	– : ad Sand Gr	aine	² l ocation	n: PL=Pore Lining, M=Matrix.		
			LRRs, unless other			airio.		rs for Problematic Hydric Soils ³ :		
Histosol			Polyvalue Be		•	RRSTI		Muck (A9) (LRR O)		
	pipedon (A2)		Thin Dark Su					Muck (A10) (LRR S)		
Black His			Loamy Muck					Reduced Vertic (F18) (outside MLRA 150A,B)		
Hydroge	n Sulfide (A4)		Loamy Gleye	ed Matrix	(F2)		Piedr	mont Floodplain Soils (F19) (LRR P, S, T)		
Stratified	Layers (A5)		✓ Depleted Ma	trix (F3)			Anon	nalous Bright Loamy Soils (F20)		
_	Bodies (A6) (LRR F		Redox Dark	,	,			LRA 153B)		
	cky Mineral (A7) (L							Parent Material (TF2)		
	esence (A8) (LRR L	J)	Redox Depre		F8)			Shallow Dark Surface (TF12)		
	ck (A9) (LRR P, T) I Below Dark Surfac	co (Δ11)	Marl (F10) (L Depleted Oc		\ (MI DA 1	51)	Otne	r (Explain in Remarks)		
	rk Surface (A12)	C (ATT)	Iron-Mangan				T) ³ Ind	licators of hydrophytic vegetation and		
		MLRA 150	A) Umbric Surfa				•	etland hydrology must be present,		
	lucky Mineral (S1) (Delta Ochric			,		nless disturbed or problematic.		
Sandy G	leyed Matrix (S4)		Reduced Ve	rtic (F18)	(MLRA 15	0A, 150B)				
	edox (S5)		Piedmont Flo							
	Matrix (S6)		Anomalous E	Bright Loa	amy Soils (F20) (MLR	A 149A, 153	C, 153D)		
	face (S7) (LRR P,						1			
	.ayer (if observed)):								
Type:										
	ches):						Hydric So	il Present? Yes V No No		
Remarks:										

Project/Site: Fentress Substation Property	City/County: City of C	Chesapeake	Sampling Date: 10/30/2020				
Applicant/Owner: Dominion Energy Services		State: VA	Sampling Date: 10/30/2020 Sampling Point: WA-SP1F				
Investigator(s): Paul Leeger, Heather Mitchell		Section, Township, Range:					
	Local relief (concave, c	-	Slope (%): 0				
Subregion (LRR or MLRA): T153A Lat: 3	36.692157	-76.192490					
Soil Map Unit Name: Acredale Silt Loam	'	NWI classific	ation: PFO				
	,						
Are climatic / hydrologic conditions on the site typical for this time			/				
Are Vegetation, Soil, or Hydrology signif			oresent? Yes _ 🗸 No				
Are Vegetation, Soil, or Hydrology natura	ally problematic? (If ne	eeded, explain any answe	rs in Remarks.)				
SUMMARY OF FINDINGS - Attach site map sho	wing sampling point le	ocations, transects	, important features, etc.				
Hydrophytic Vegetation Present? Yes ✓ No			,				
Hydric Soil Present? Yes _ ✓ No _ Wetland Hydrology Present? Yes _ ✓ No _		nd? Yes <u>▼</u>	No				
Remarks:							
HYDROLOGY							
Wetland Hydrology Indicators:		Secondary Indica	tors (minimum of two required)				
Primary Indicators (minimum of one is required; check all that a	apply)	Surface Soil					
Surface Water (A1) Aquatic Faur			Sparsely Vegetated Concave Surface (B8)				
	s (B15) (LRR U)		Drainage Patterns (B10)				
Saturation (A3) Hydrogen St	ulfide Odor (C1)		Moss Trim Lines (B16)				
Water Marks (B1) Oxidized Rhi	izospheres along Living Roots	s (C3) Dry-Season	Dry-Season Water Table (C2)				
	Reduced Iron (C4)		Crayfish Burrows (C8)				
	Reduction in Tilled Soils (C6)		Saturation Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4) Thin Muck S	` '	✓ Geomorphic Position (D2)					
Iron Deposits (B5) Other (Expla Inundation Visible on Aerial Imagery (B7)	in in Remarks)	Shallow Aquitard (D3) ✓ FAC-Neutral Test (D5)					
Water-Stained Leaves (B9)		Sphagnum moss (D8) (LRR T, U)					
Field Observations:		<u> </u>	(2.0) (2 .000 1, 0)				
Surface Water Present? Yes No _ ✓ _ Depth (i	nches):						
Water Table Present? Yes No _ ✓ Depth (i							
Saturation Present? Yes No _ ✓ Depth (i	nches): We	etland Hydrology Preser	it? Yes No				
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aeria	I photos previous inspections	s) if available:					
Describe Necorded Data (stream gauge, monitoring well, acria	r priotos, previous mapeetions	o, ii avallabic.					
Remarks:							

20#		Dominant		Dominance Test worksheet:		
Tree Stratum (Plot size: 30 ft)		Species?		Number of Dominant Species		
1. Quercus michauxii	30	Yes	FACW	That Are OBL, FACW, or FAC: 10 (A)		
2. Pinus taeda	20	Yes	FAC	Total Number of Dominant		
3. Acer rubrum	20	Yes	FAC	Species Across All Strata: 10 (B)		
4. Quercus alba	2	No	FACU	Percent of Dominant Species		
5. Quercus rubra	2	No	FACU	That Are OBL, FACW, or FAC: 100 (A/I		
6				Prevalence Index worksheet:		
		= Total Cov		Total % Cover of: Multiply by:		
50% of total cover: 37	20% of	total cover	: 15			
Sapling Stratum (Plot size: 30 ft)						
1. Liquidambar styraciflua	10	Yes	FAC	FACW species $\frac{3}{125}$ $\times 2 = \frac{20}{375}$		
2. Magnolia virginiana	5	Yes	FACW	FAC species $\frac{125}{5}$ $x = 375$		
3. Quercus rubra	3	No	FACU	FACU species $\frac{5}{0}$ $x = \frac{20}{0}$		
4				01 L species x 3 =		
5				Column Totals: <u>133</u> (A) <u>415</u> (B		
6				Prevalence Index = B/A = 2.96		
		= Total Cov	/er	Hydrophytic Vegetation Indicators:		
50% of total cover: 9				1 - Rapid Test for Hydrophytic Vegetation		
Shrub Stratum (Plot size: 30 ft)				2 - Dominance Test is >50%		
1. Liquidambar styraciflua	20	Yes	FAC	✓ 3 - Prevalence Index is ≤3.0 ¹		
2. Acer rubrum	10	Yes	FAC	1 		
3.				Problematic Hydrophytic Vegetation ¹ (Explain)		
				1		
4				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
5				' '		
6	30	T-1-1 O-1		Definitions of Five Vegetation Strata:		
500/ // 15		= Total Cov		Tree – Woody plants, excluding woody vines,		
50% of total cover: 15	20% of	total cover	:	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: ^{30 ft}) 1. Arundinaria gigantea	40	Vaa	EAC)//	(7.5 only of larger in diameter at breast height (5511).		
··-	- 40	res	FACW	Sapling – Woody plants, excluding woody vines,		
2				approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.		
3						
4				Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.		
5				approximately 3 to 20 ft (1 to 6 ff) in fieight.		
6				Herb – All herbaceous (non-woody) plants, including		
7				herbaceous vines, regardless of size, <u>and</u> woody plants, except woody vines, less than approximately		
8				3 ft (1 m) in height.		
9				Woody vine – All woody vines, regardless of height.		
10				woody ville – All woody villes, regardless of fleight.		
11						
	40	= Total Cov	er er			
50% of total cover: 0	20% of	total cover	: 0			
Woody Vine Stratum (Plot size: 30 ft)						
1. Smilax rotundifolia	5	Yes	FAC			
2. Vitis rotundifolia	5	Yes	FAC			
3.						
4.						
5.				Hydrophytic		
··	10 = Total Cover			Hydrophytic Vegetation Present? Yes No No		
	= 10tal 00vcl					
50% of total cover: 5		total cover	. 2	Present? Yes V No No		

Profile Desc	ription: (Describe	to the dep	th needed to docur	nent the	indicator	or confirm	n the absenc	e of indicators.)		
Depth	Matrix			x Feature						
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks		
0-4	10 YR 2/1	100		_			Silt Loam			
4-7	10 YR 4/1	100					Loam	ORs		
7-20	10 YR 4/1	90	10 YR 4/6	10	С	PL	SCL			
			-				-			
							-			
1Type: C-Co	ncentration D-Der	oletion RM	=Reduced Matrix, M	S-Masko	– : ad Sand Gr	aine	² l ocation	n: PL=Pore Lining, M=Matrix.		
			LRRs, unless other			airio.		rs for Problematic Hydric Soils ³ :		
Histosol			Polyvalue Be		•	RRSTI		Muck (A9) (LRR O)		
	pipedon (A2)		Thin Dark Su					Muck (A10) (LRR S)		
Black His			Loamy Muck					Reduced Vertic (F18) (outside MLRA 150A,B)		
Hydroge	n Sulfide (A4)		Loamy Gleye	ed Matrix	(F2)		Piedr	mont Floodplain Soils (F19) (LRR P, S, T)		
Stratified	Layers (A5)		✓ Depleted Ma	trix (F3)			Anon	nalous Bright Loamy Soils (F20)		
_	Bodies (A6) (LRR F		Redox Dark	,	,			LRA 153B)		
	cky Mineral (A7) (L							Parent Material (TF2)		
	esence (A8) (LRR L	J)	Redox Depre		F8)			Shallow Dark Surface (TF12)		
	ck (A9) (LRR P, T) I Below Dark Surfac	co (Δ11)	Marl (F10) (L Depleted Oc		\ (MI DA 1	51)	Otne	r (Explain in Remarks)		
	rk Surface (A12)	C (ATT)	Iron-Mangan				T) ³ Ind	licators of hydrophytic vegetation and		
		MLRA 150	A) Umbric Surfa				•	etland hydrology must be present,		
	lucky Mineral (S1) (Delta Ochric			,		nless disturbed or problematic.		
Sandy G	leyed Matrix (S4)		Reduced Ve	rtic (F18)	(MLRA 15	0A, 150B)				
	edox (S5)		Piedmont Flo							
	Matrix (S6)		Anomalous E	Bright Loa	amy Soils (F20) (MLR	A 149A, 153	C, 153D)		
	face (S7) (LRR P,									
	.ayer (if observed)):								
Type:										
	ches):						Hydric So	il Present? Yes V No No		
Remarks:										



Photo 1: View looking east at palustrine forested (PFO) wetlands at the Site from wetland data point WA-SP1F.



Photo 2: View looking north at PFO wetlands at the Site from wetland data point WB-SP2F.

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Photo 3: View looking north at palustrine emergent (PEM) wetlands at the Site from wetland data point WB-SP3E.



Photo 4: View looking west at PFO wetlands at the Site from wetland data point WB-SP2F.

Appendix A Page 2



Photo 5: View looking northeast at palustrine emergent (PEM) wetlands at the Site from wetland data point WC-SP2E.



Photo 6: View looking northeast at upland forest from data point SP-U2F.

Appendix A Page 3



Photo 7: View of upland maintained easement north of the existing Fentress substation from upland data point SP-U1E.

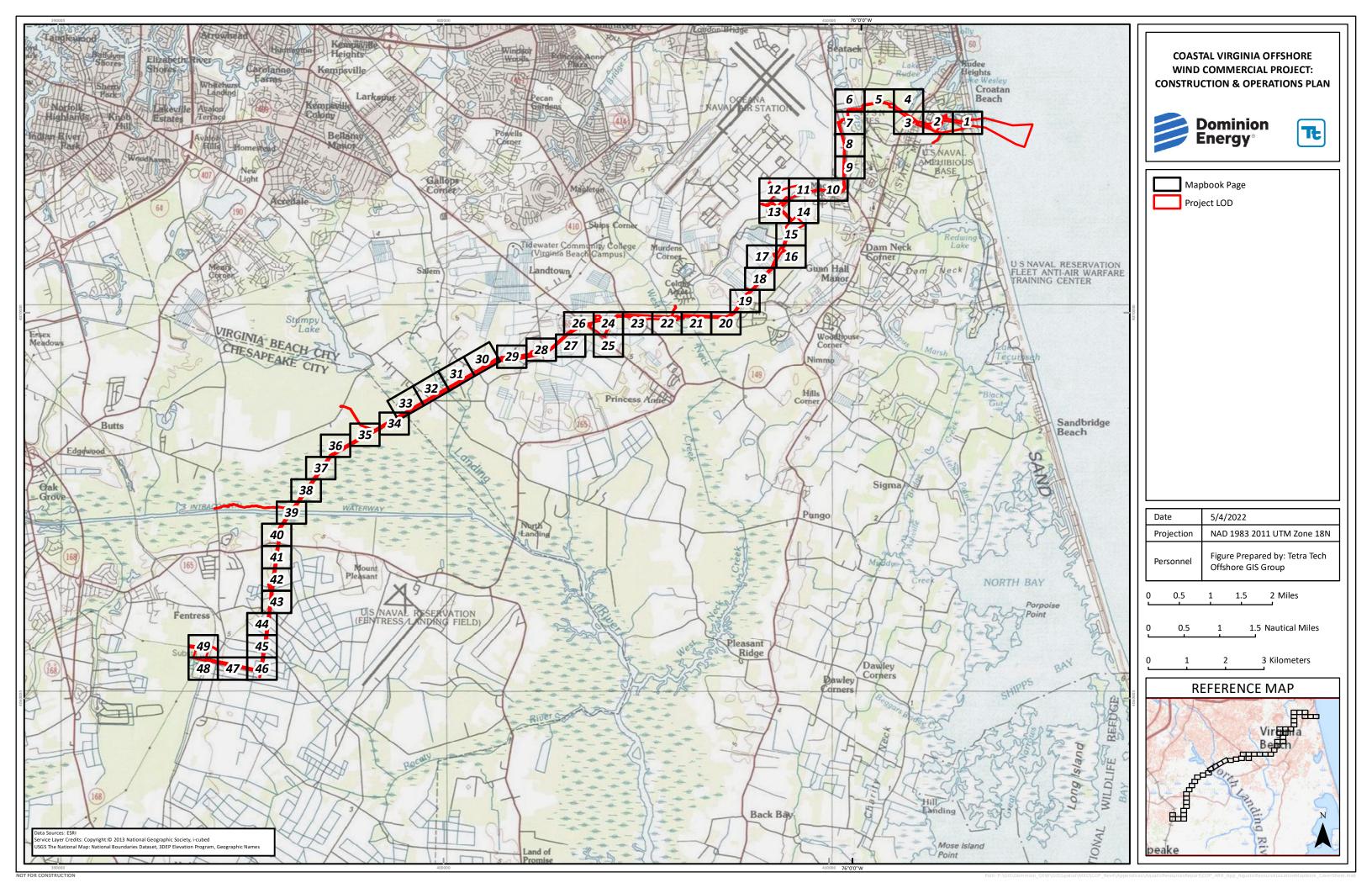


Photo 8: View looking north at upland forest from data point SP-U3F.

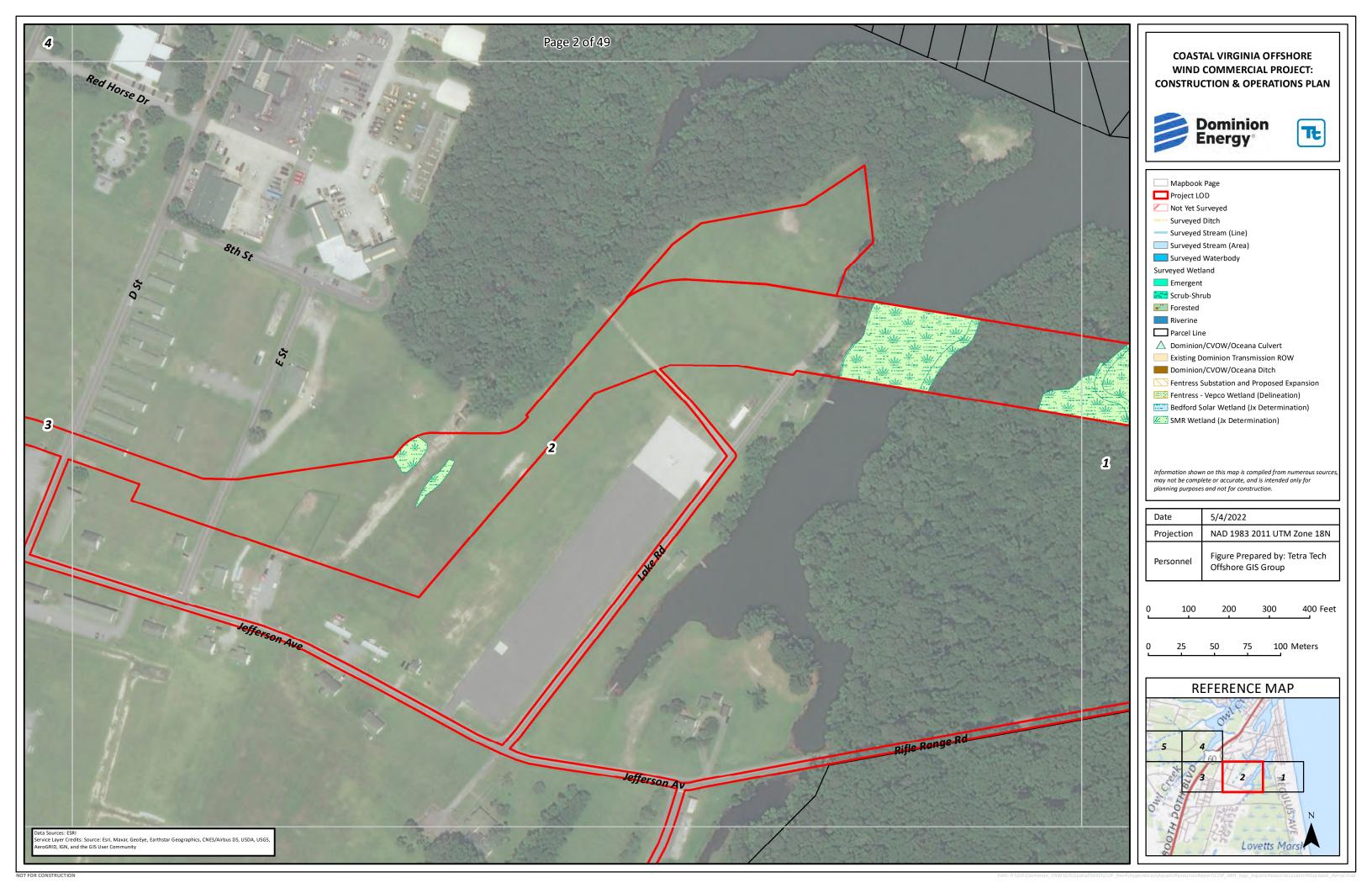
Appendix A

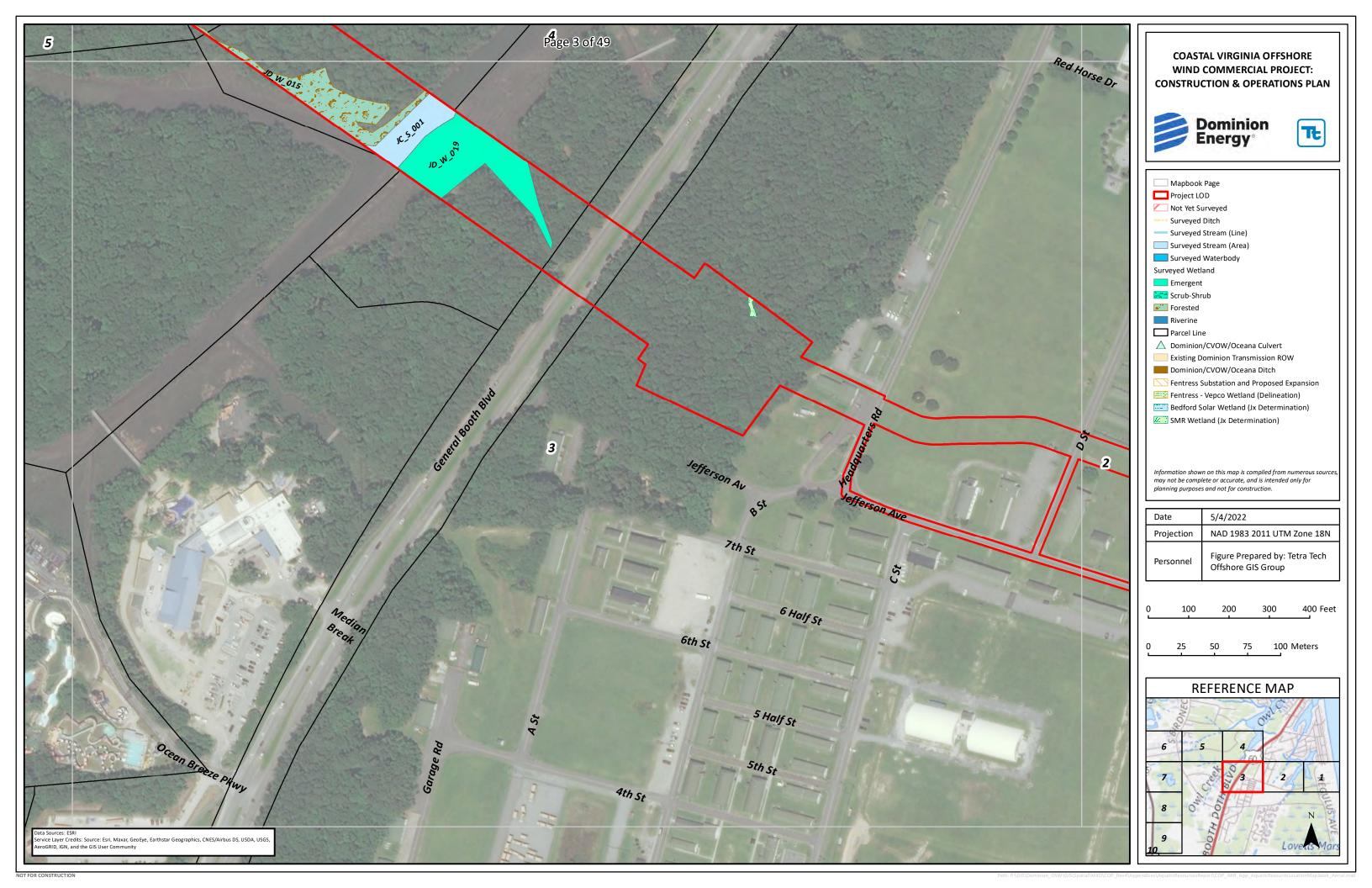
ATTACHMENT U-2: MAPBOOK

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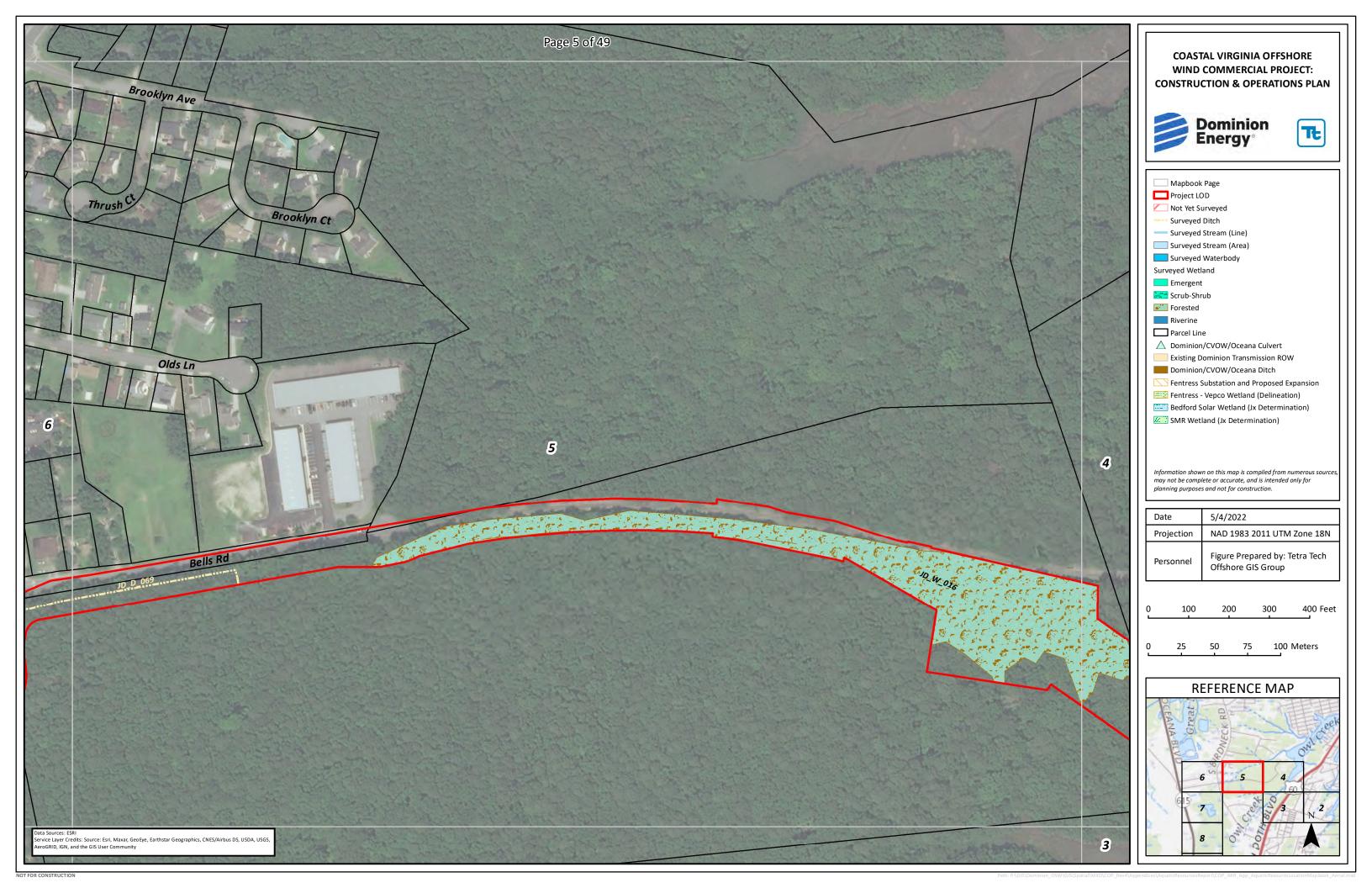




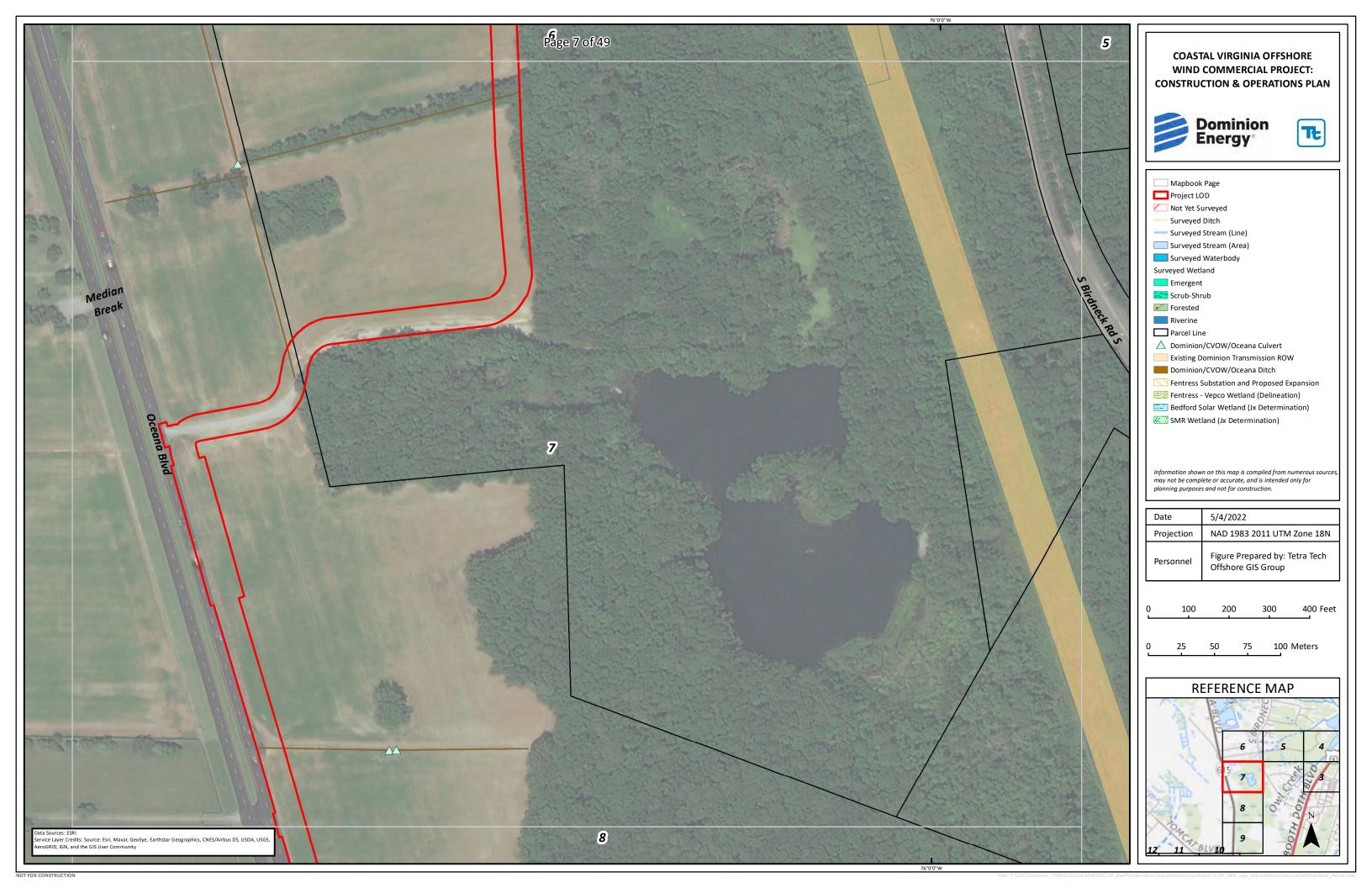


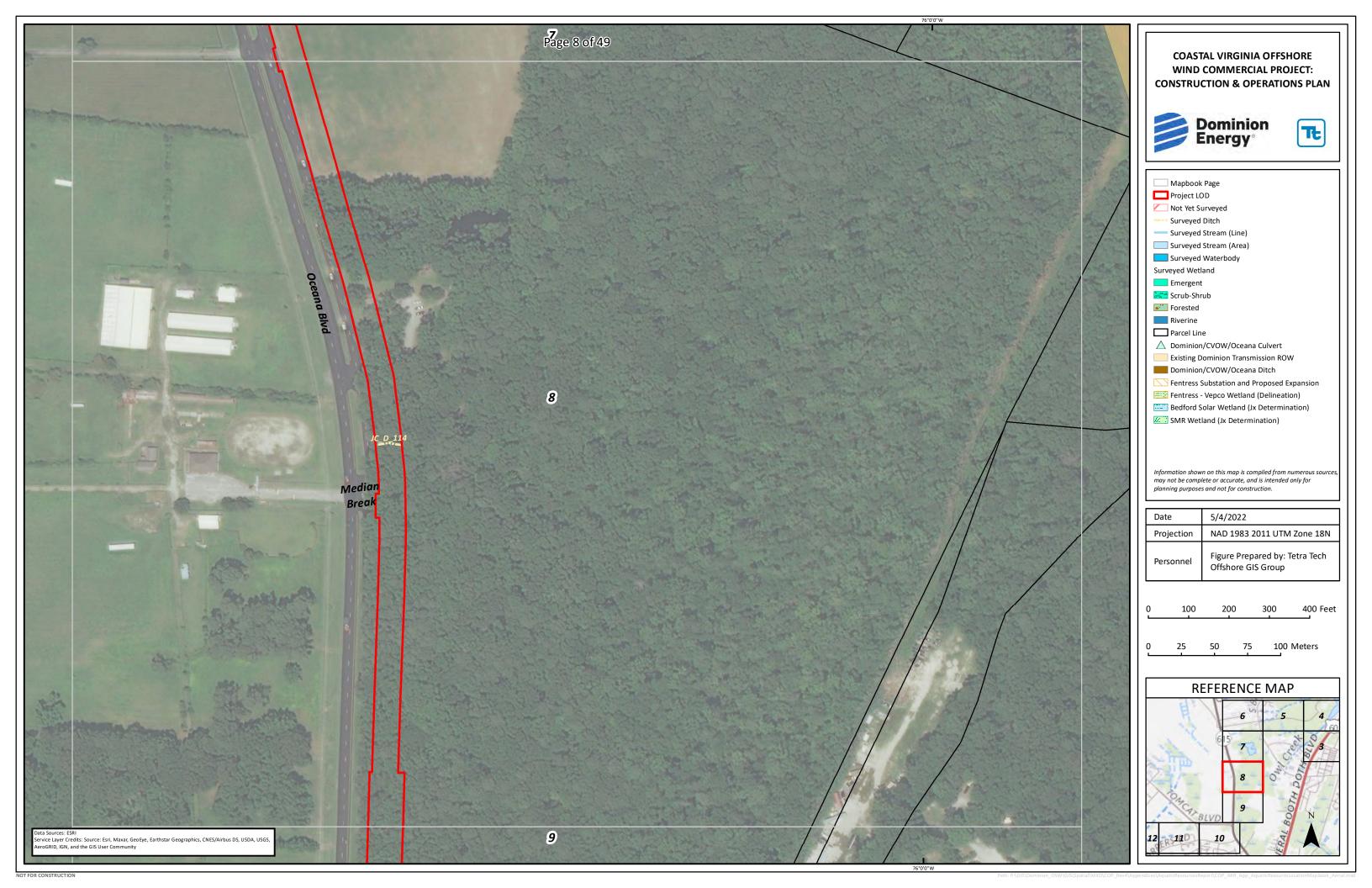




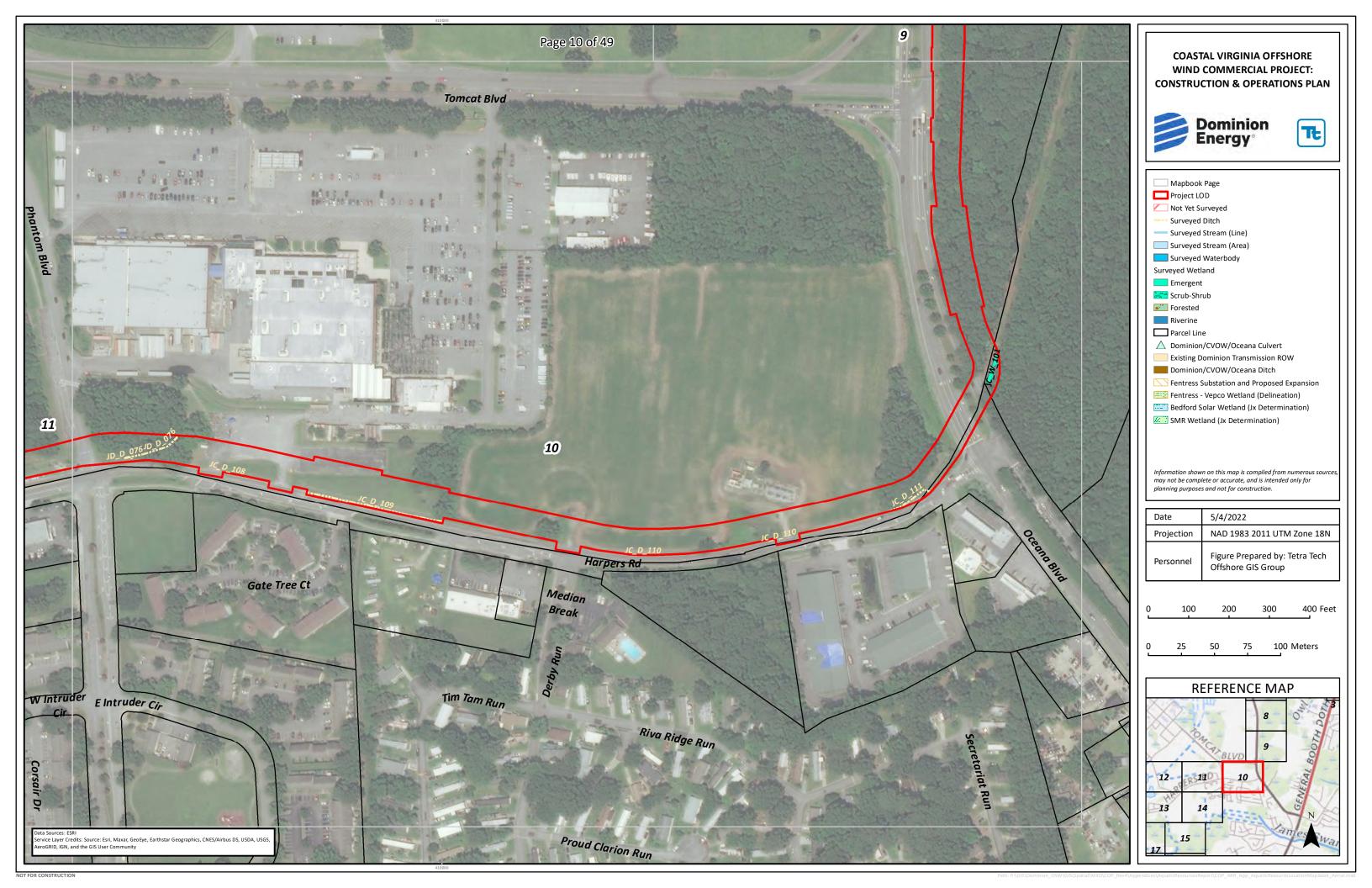


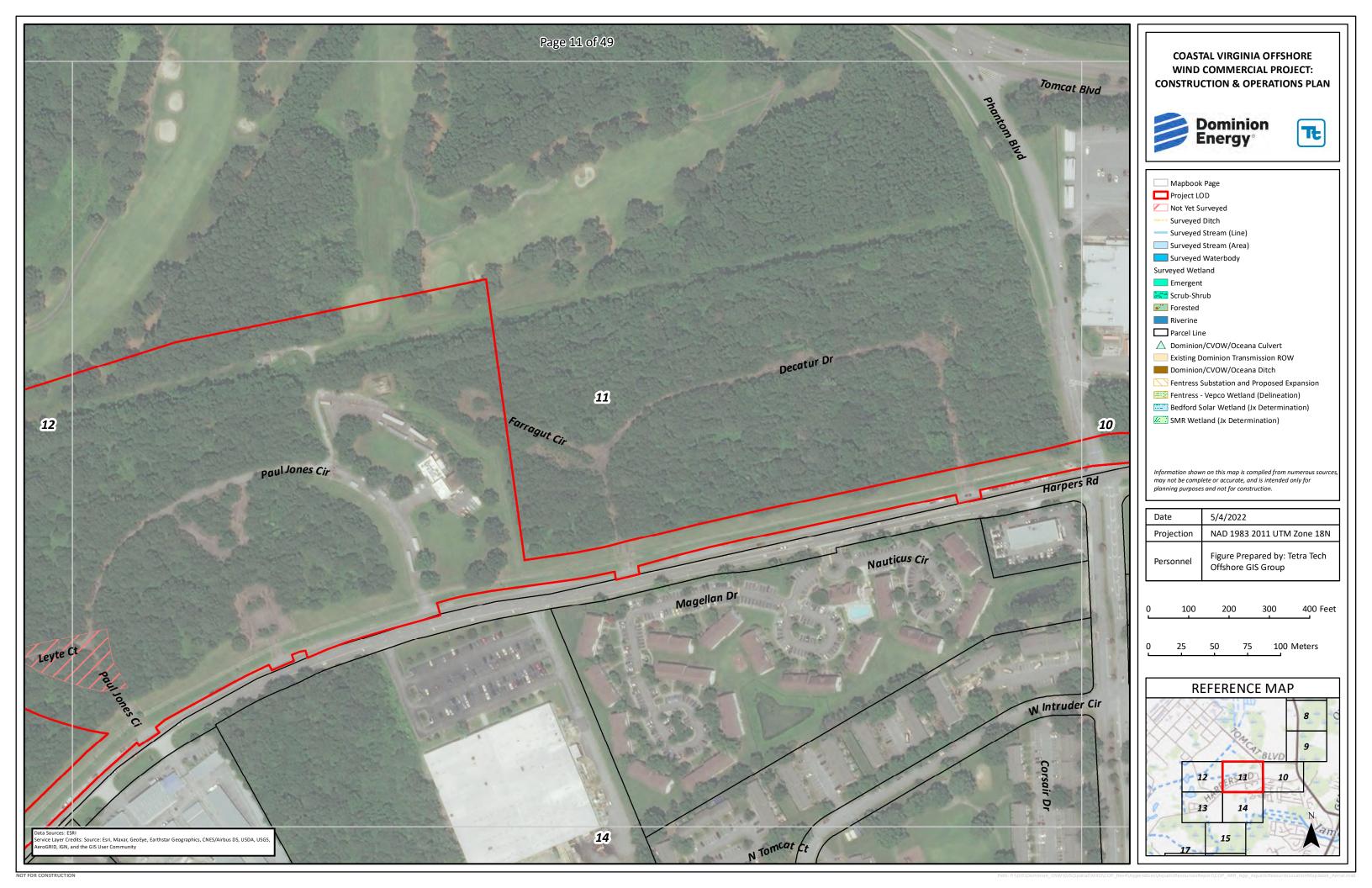


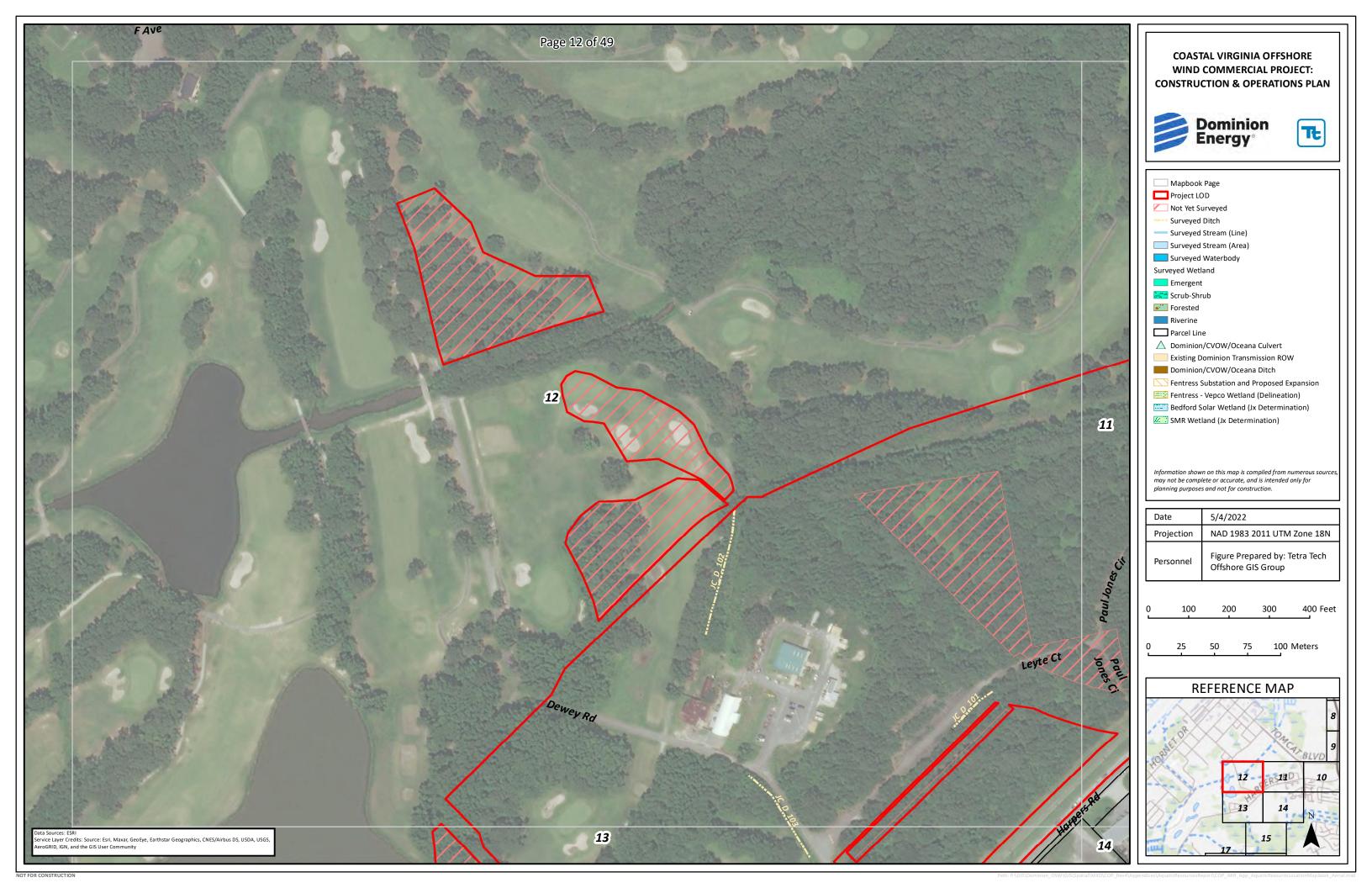


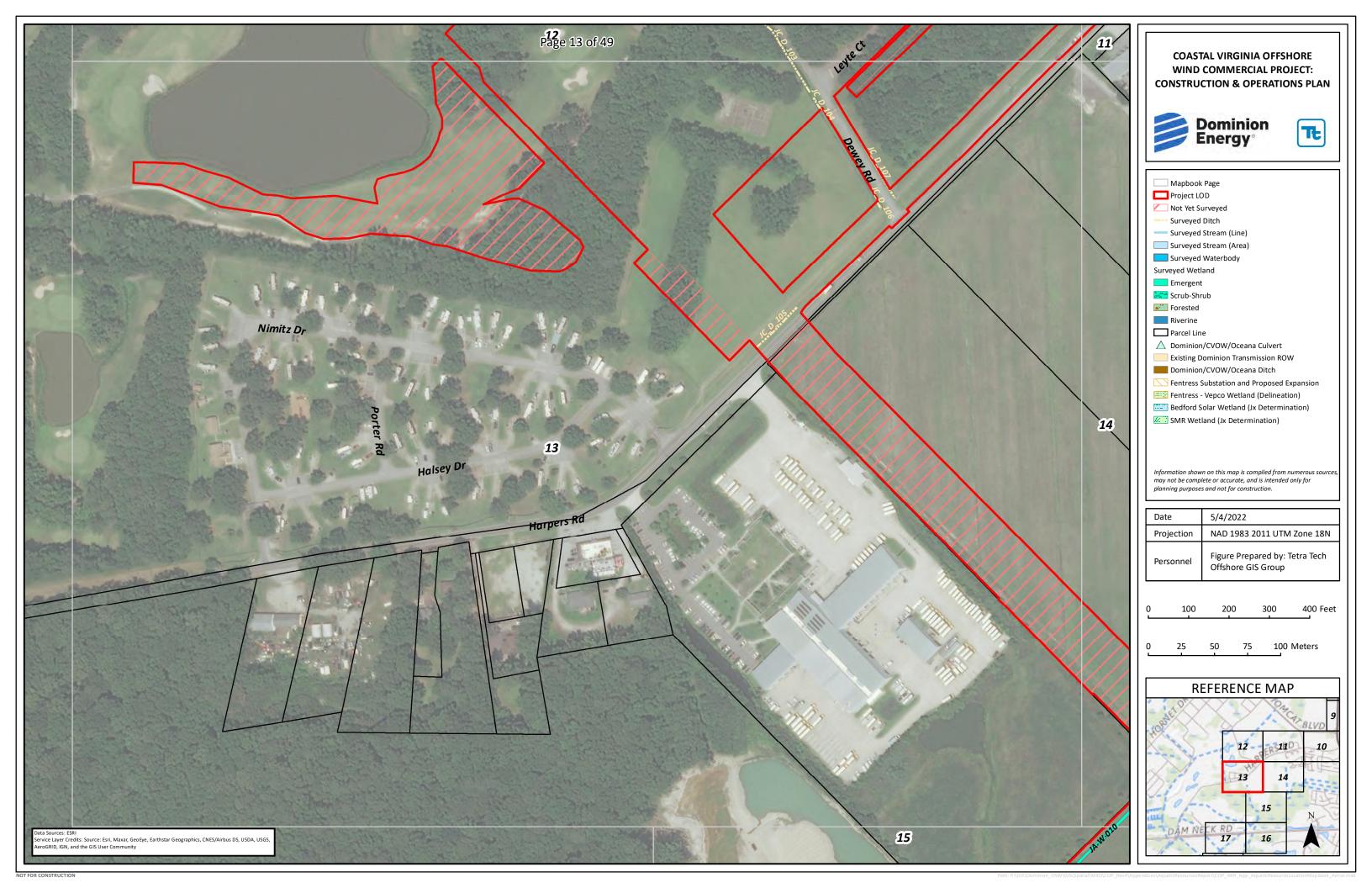














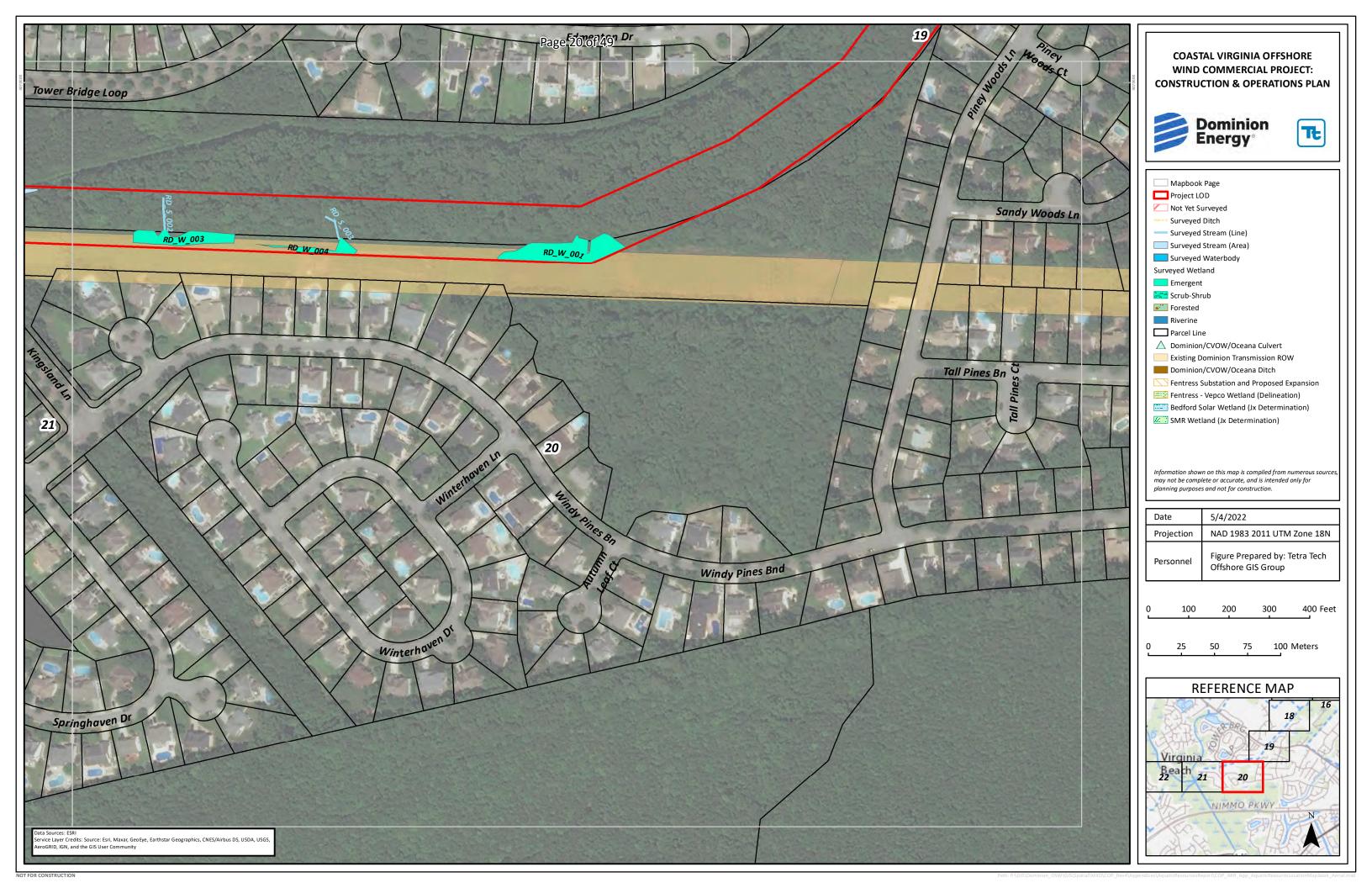


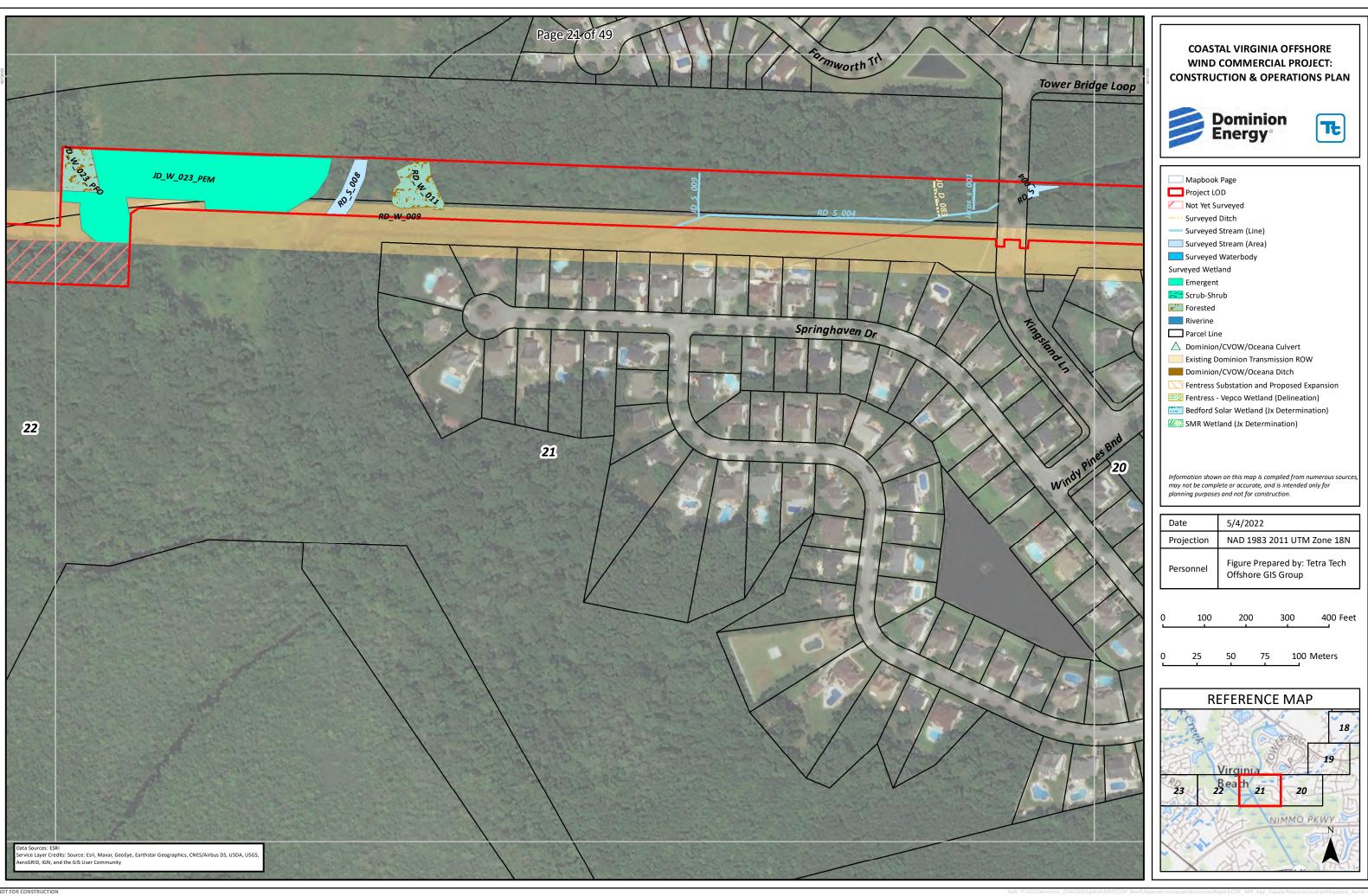


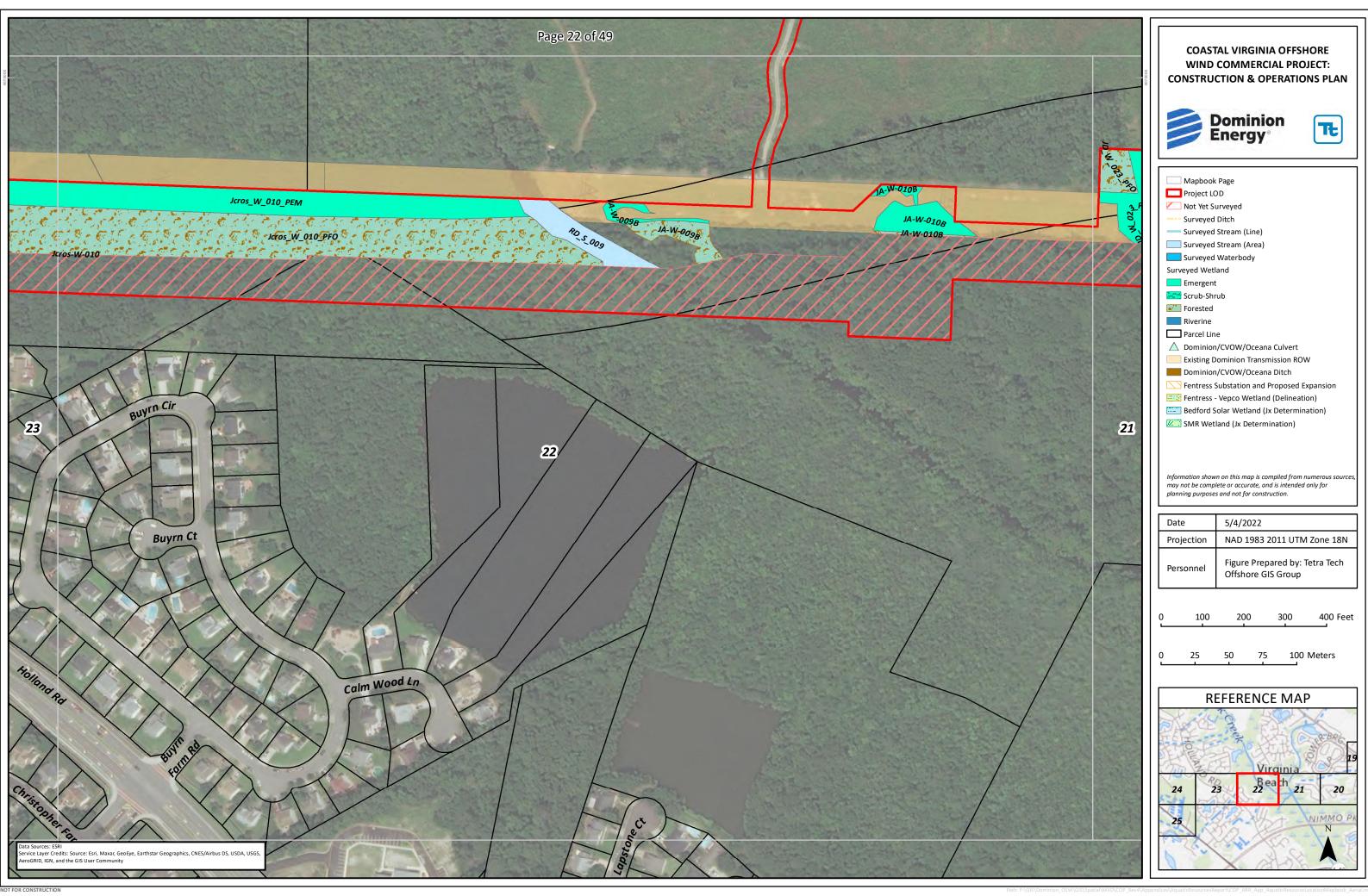


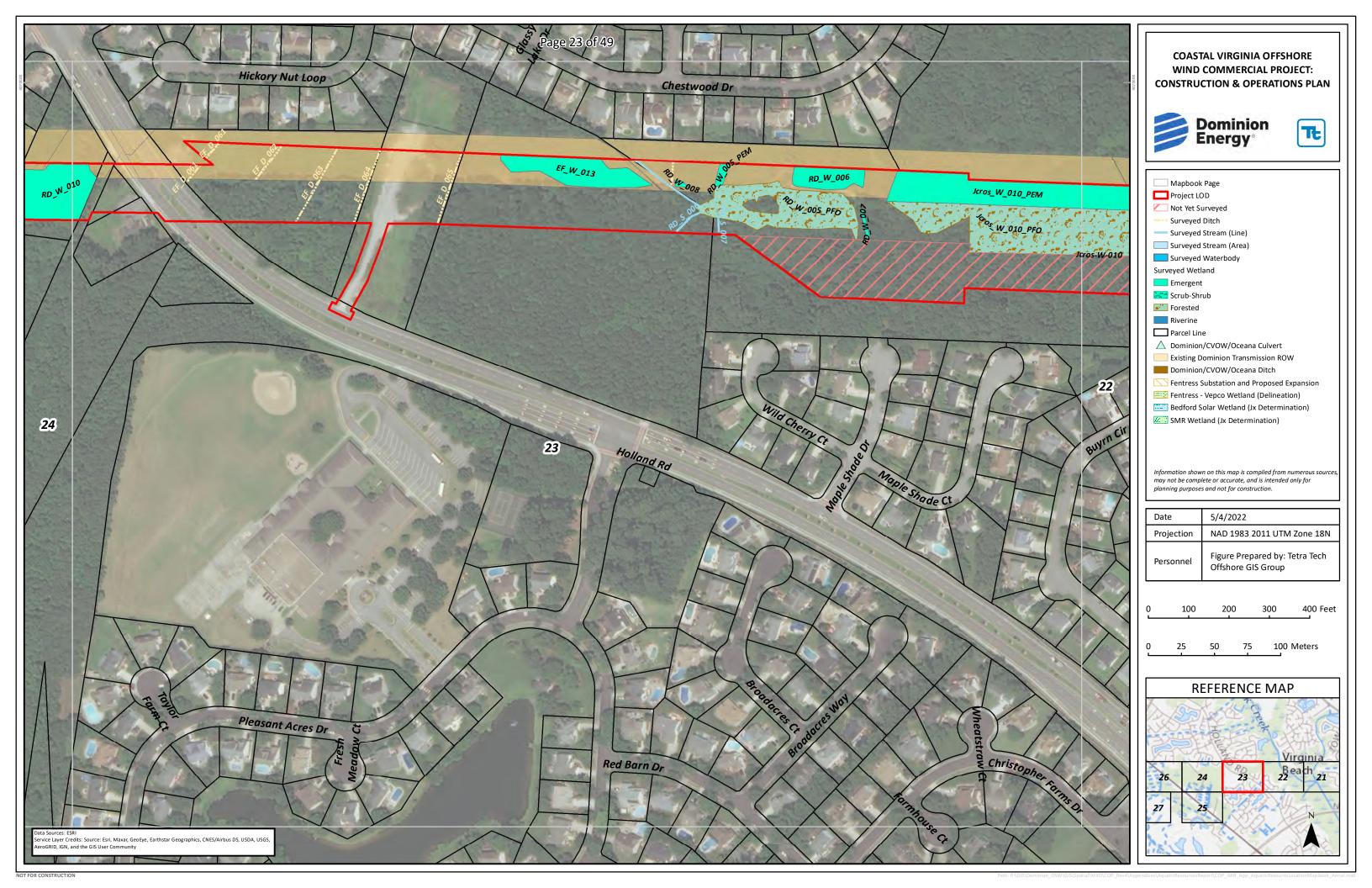


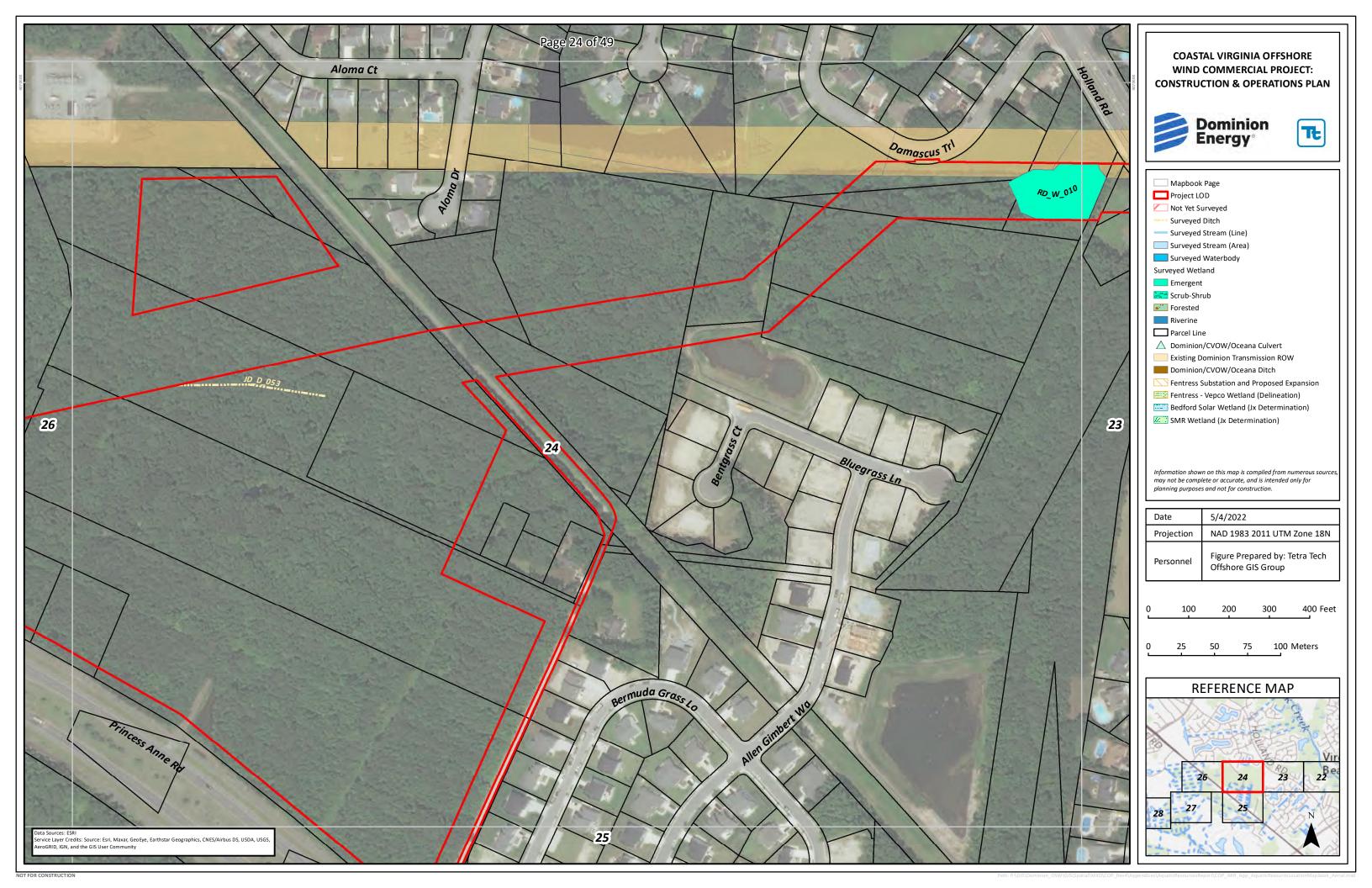




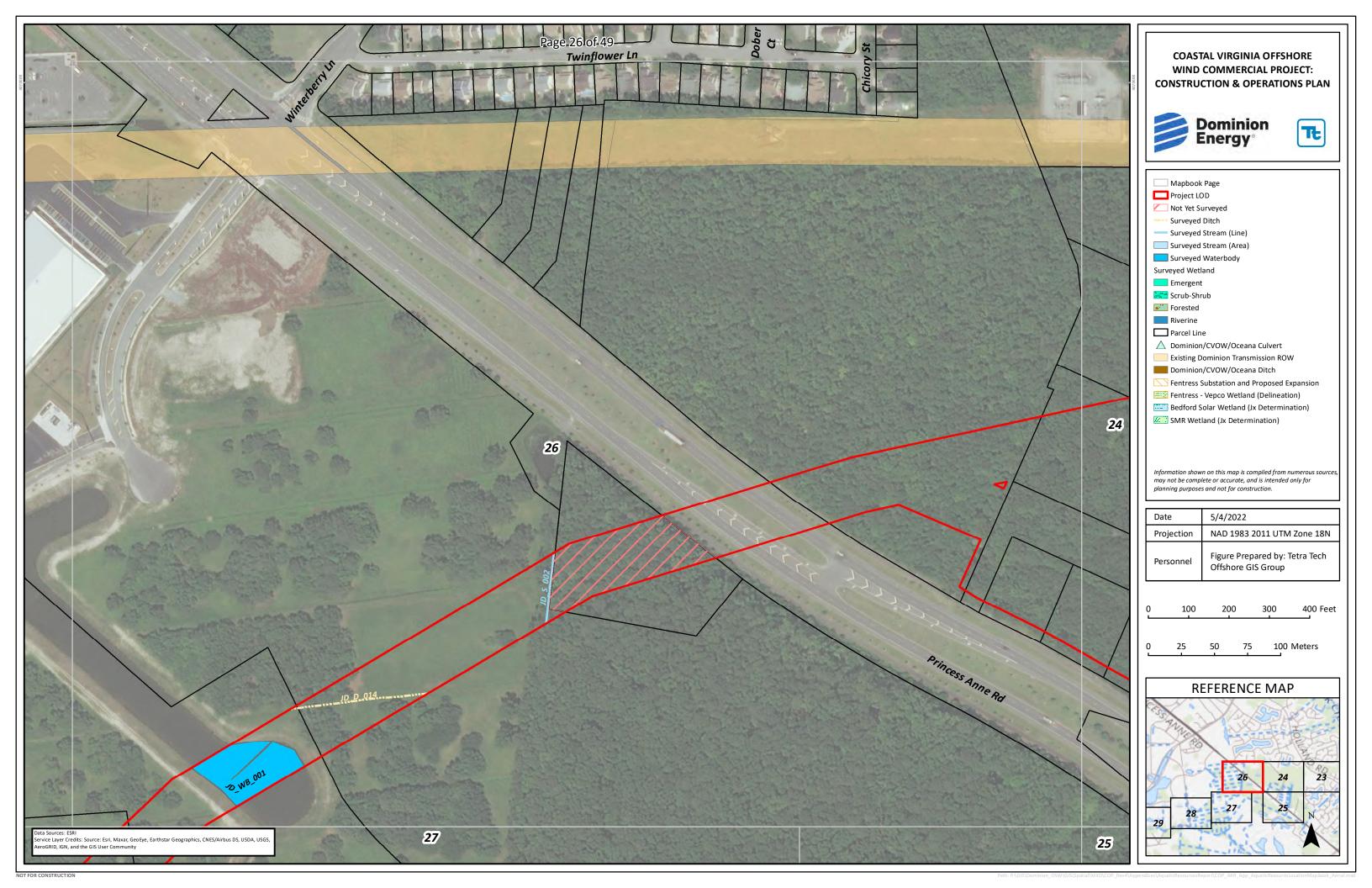


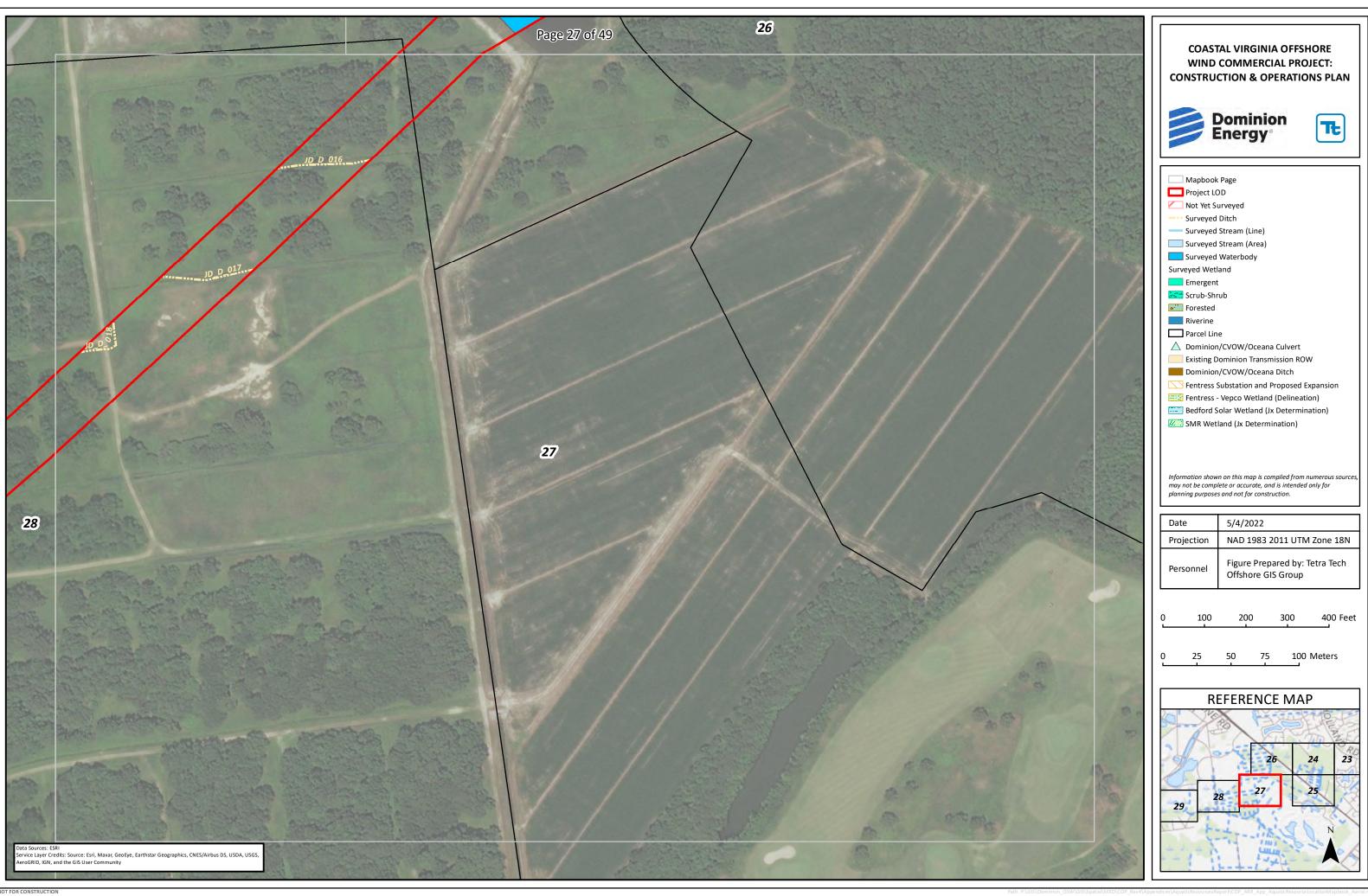


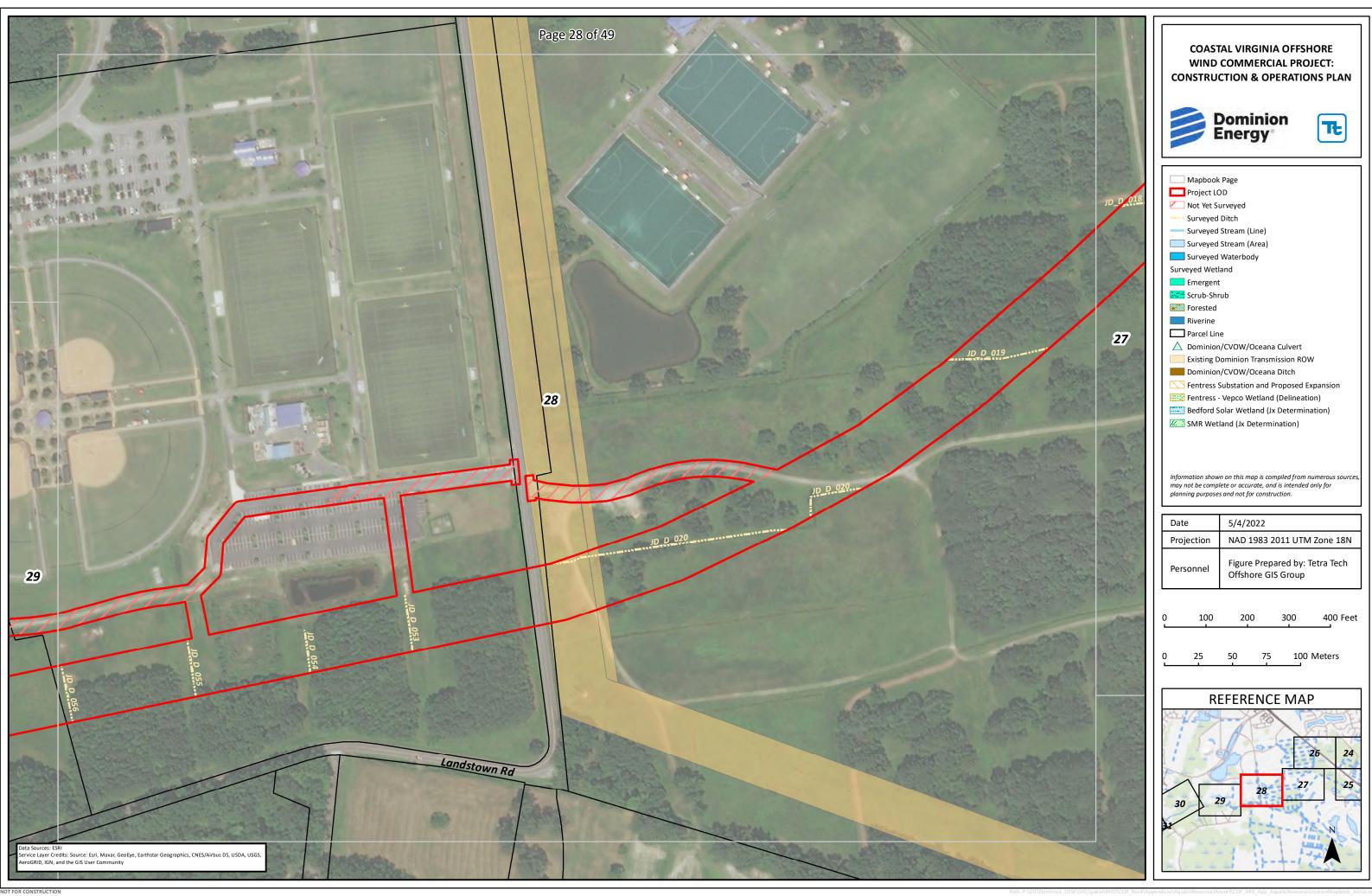


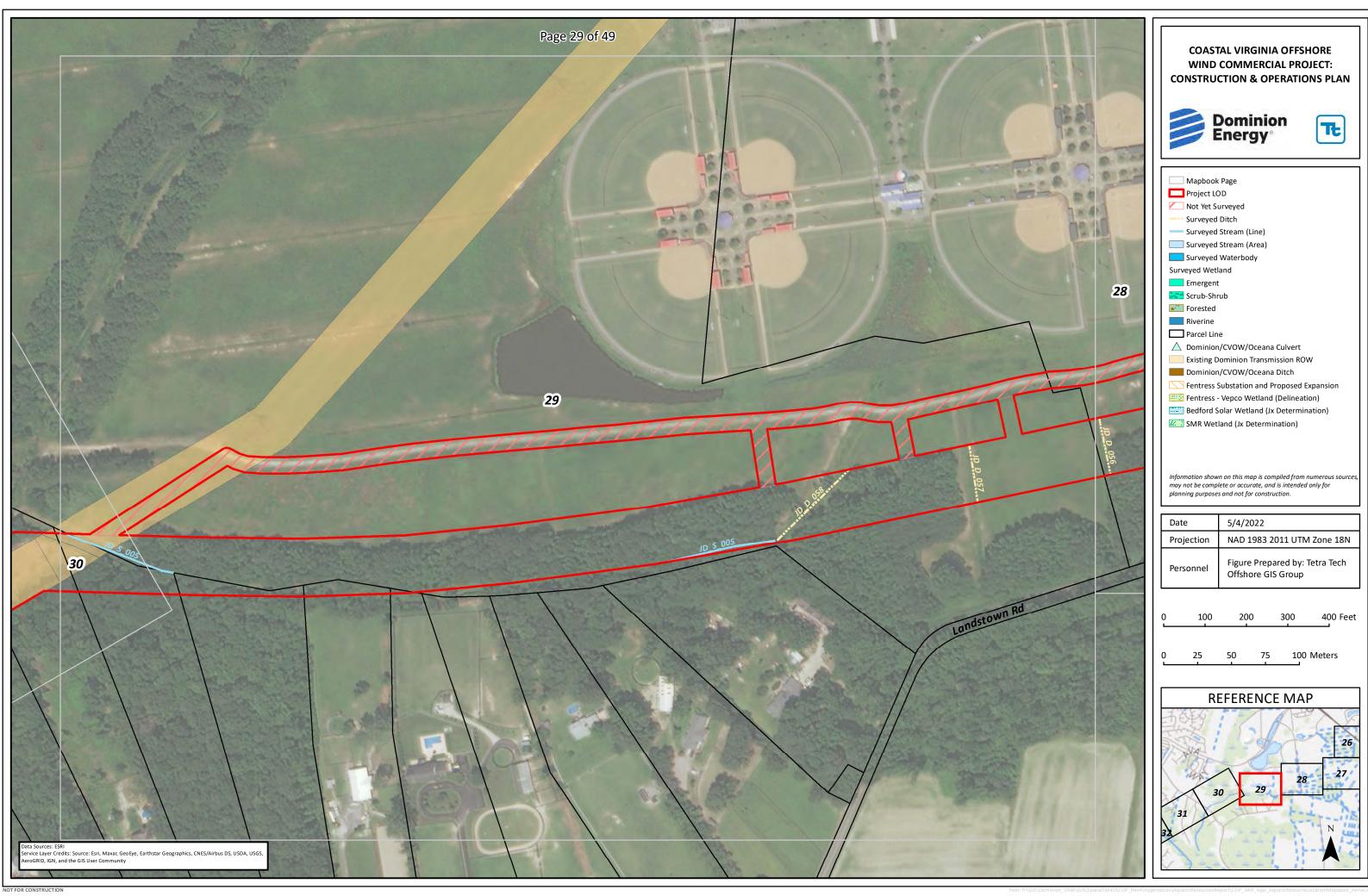


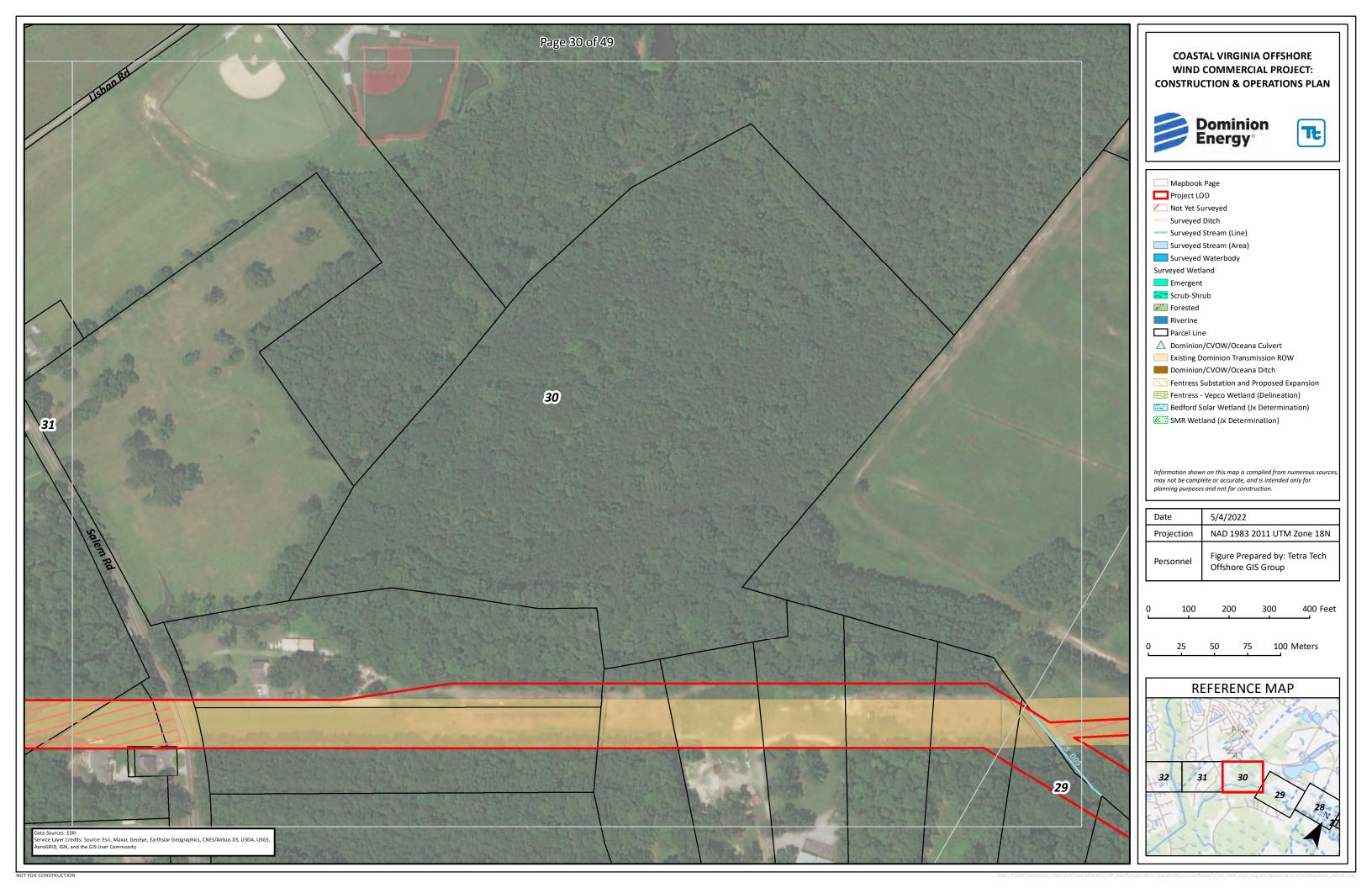






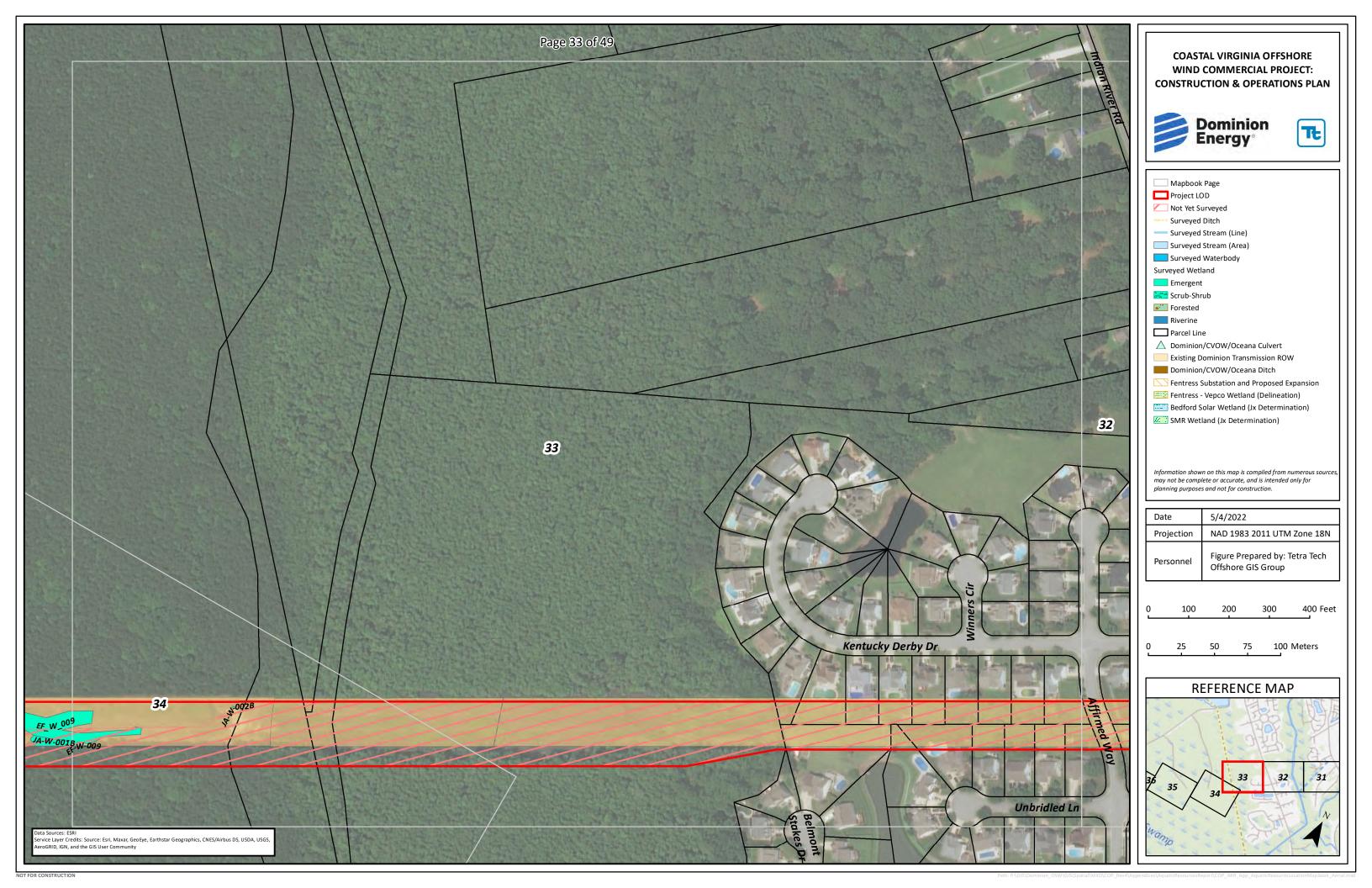


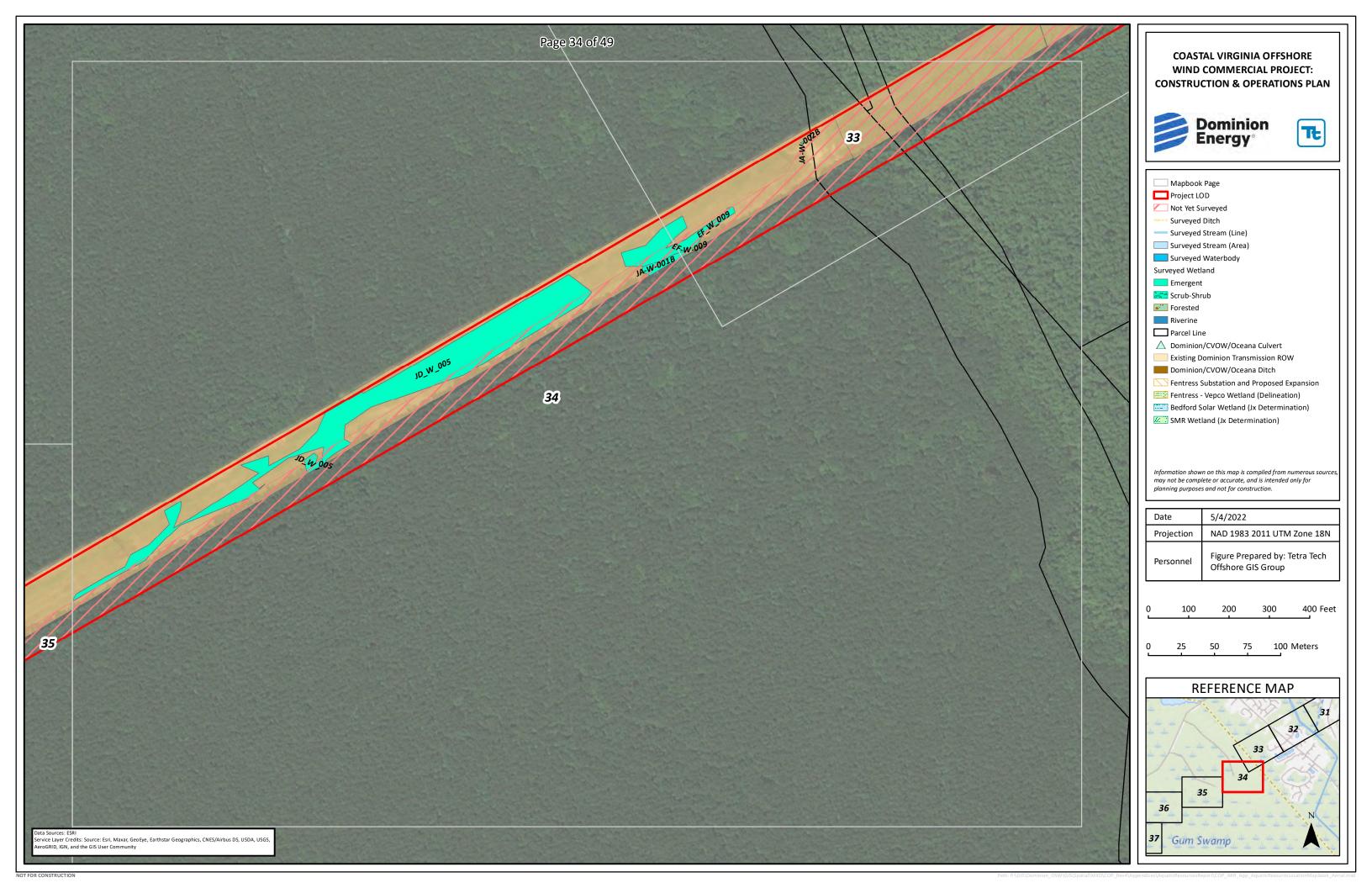


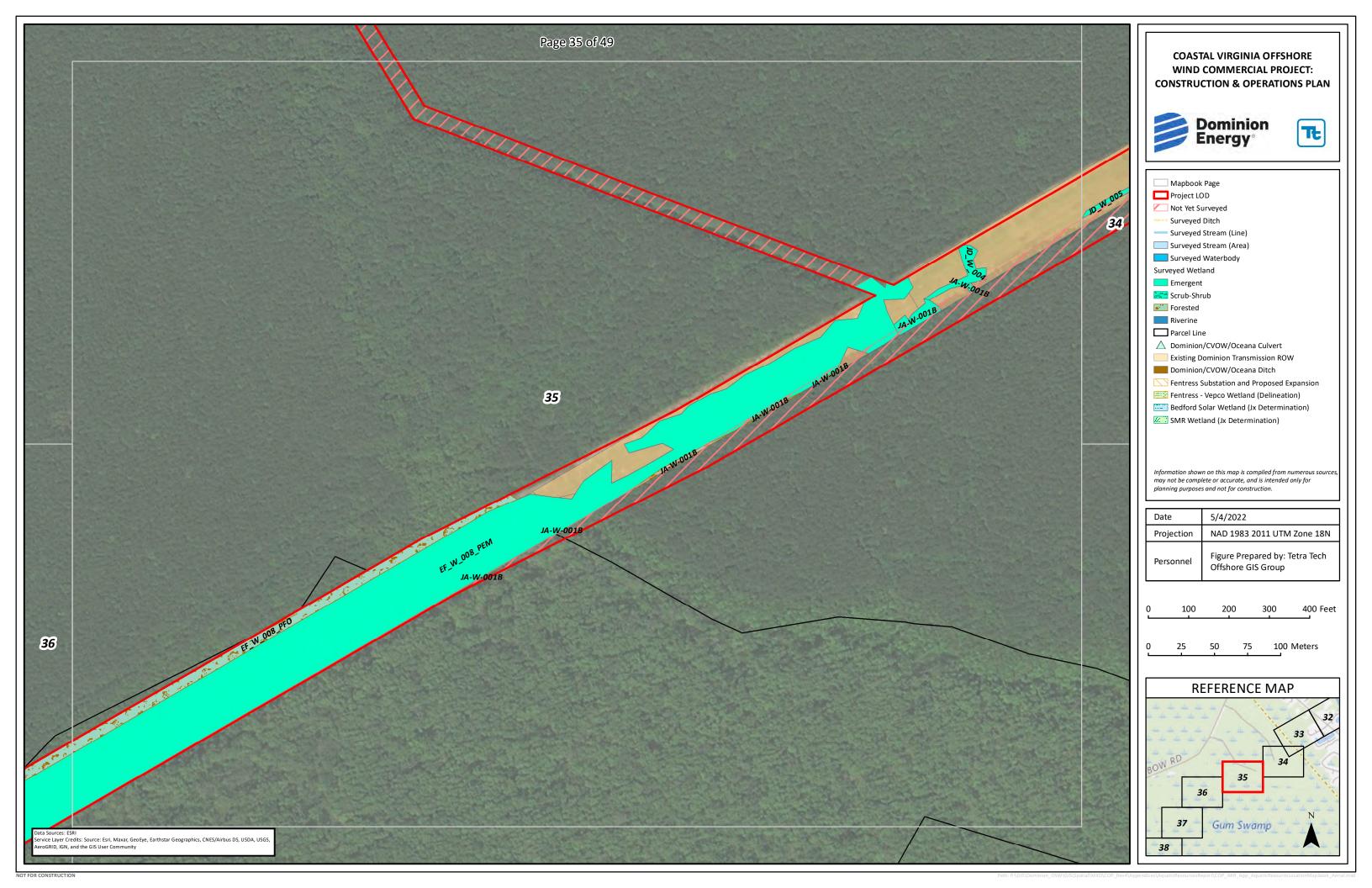










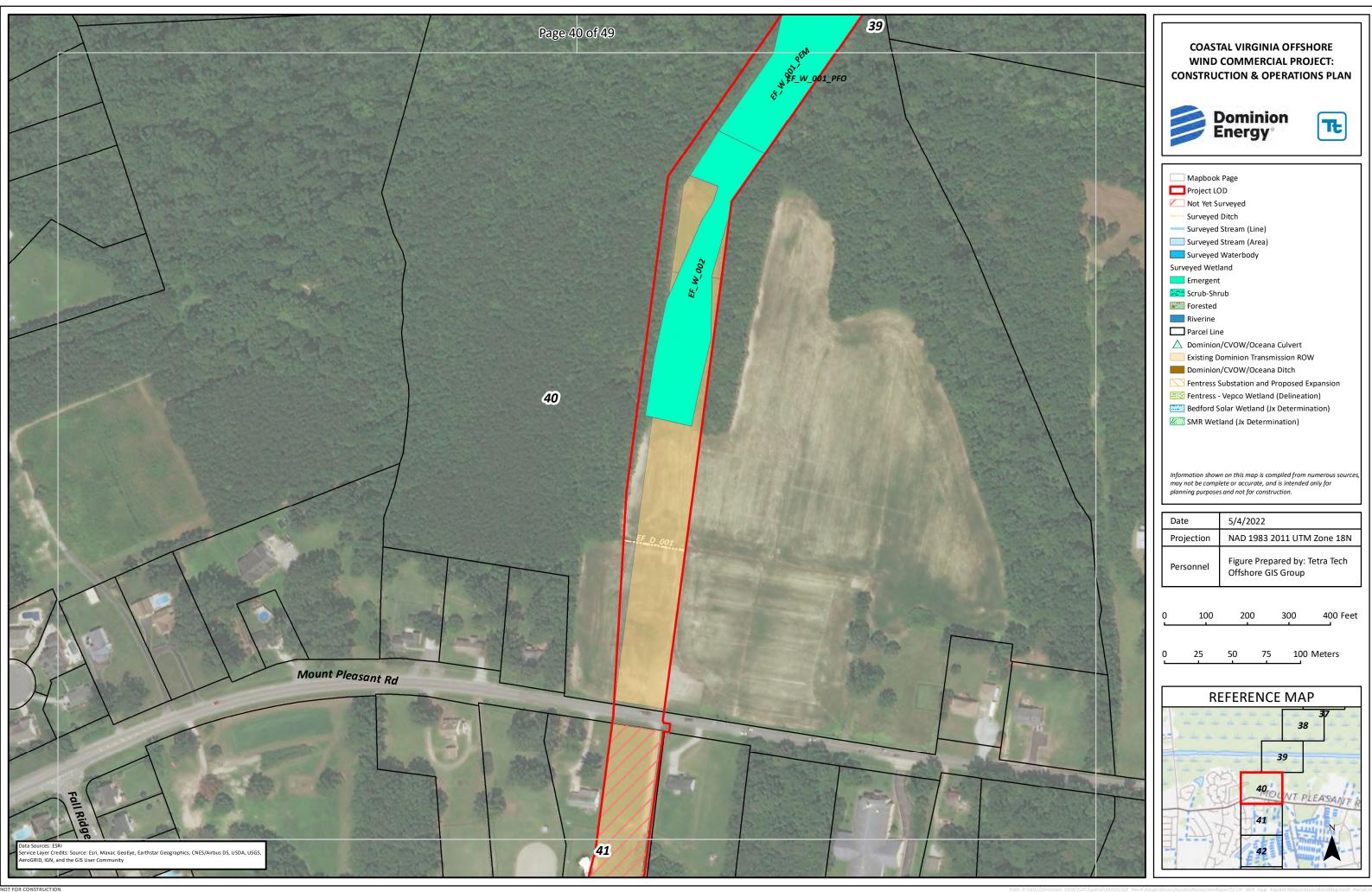


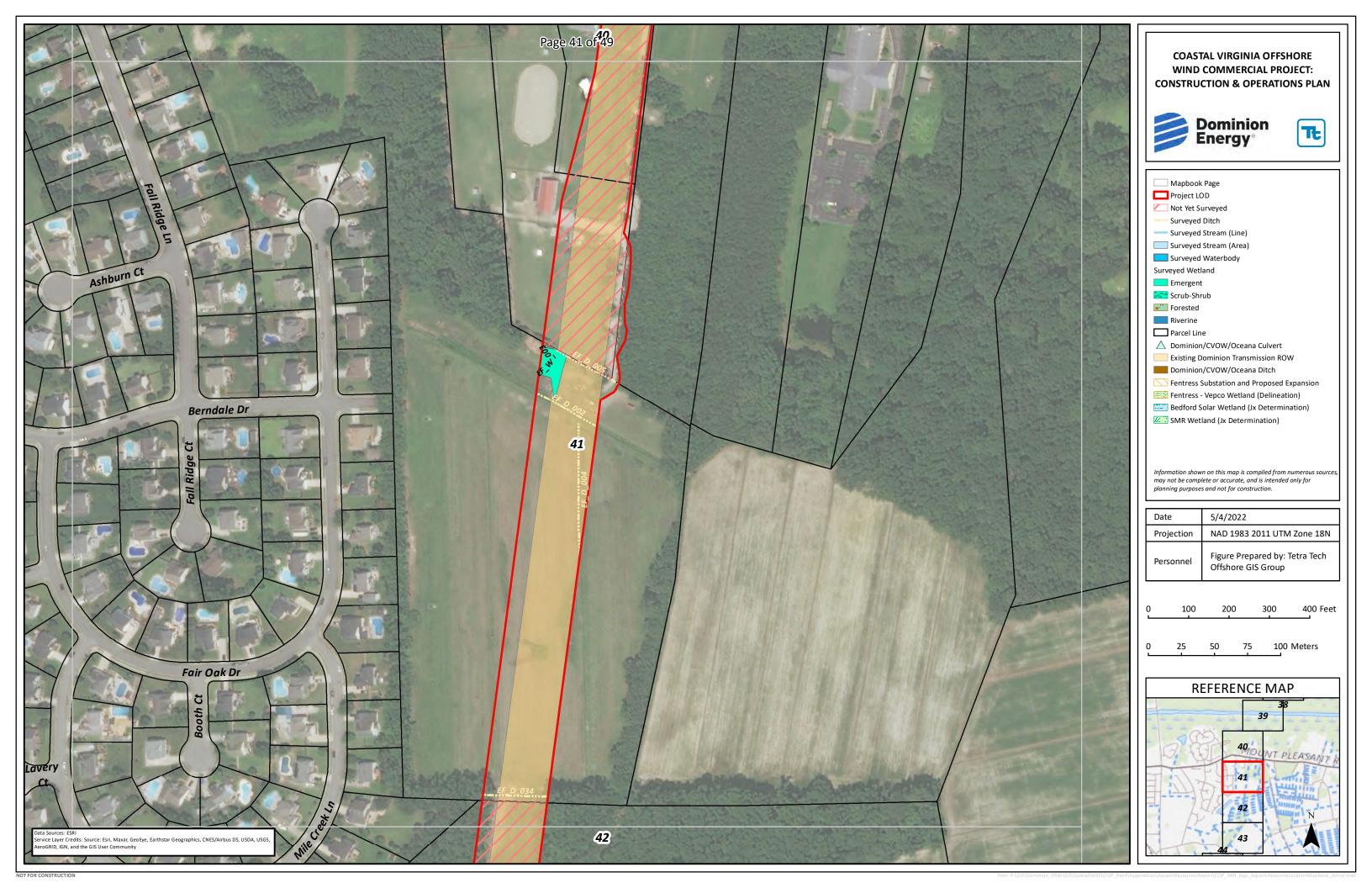






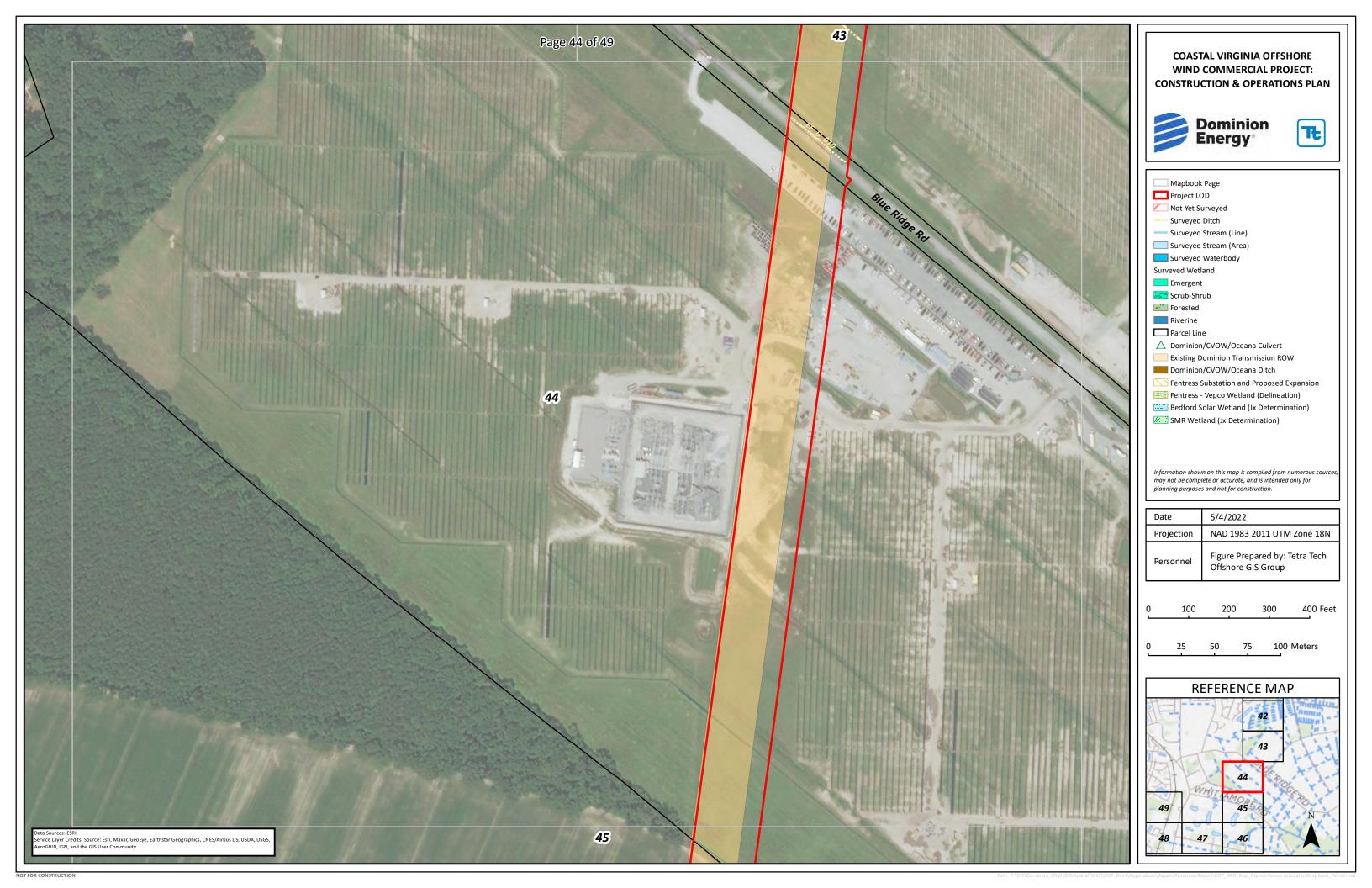






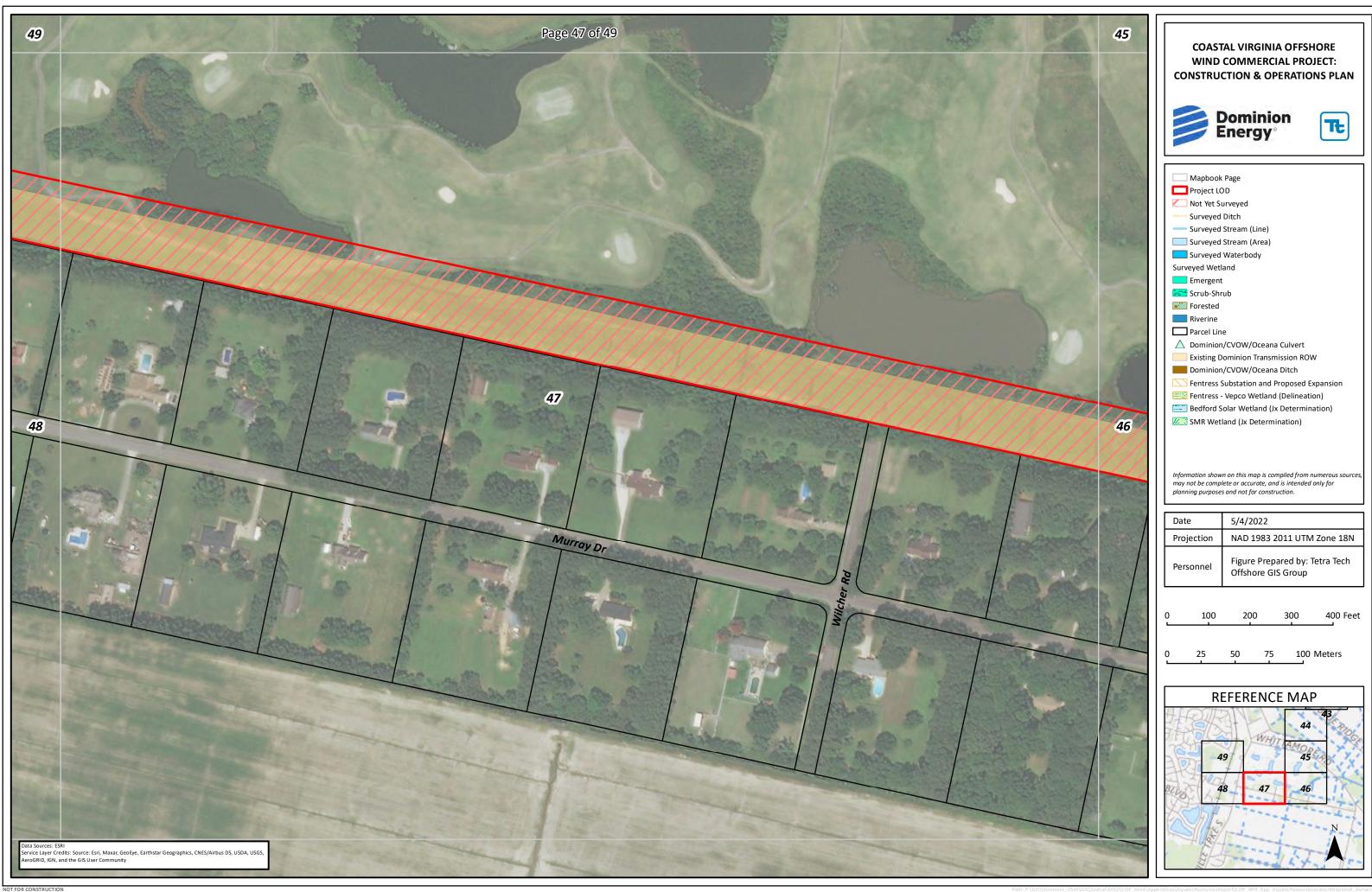


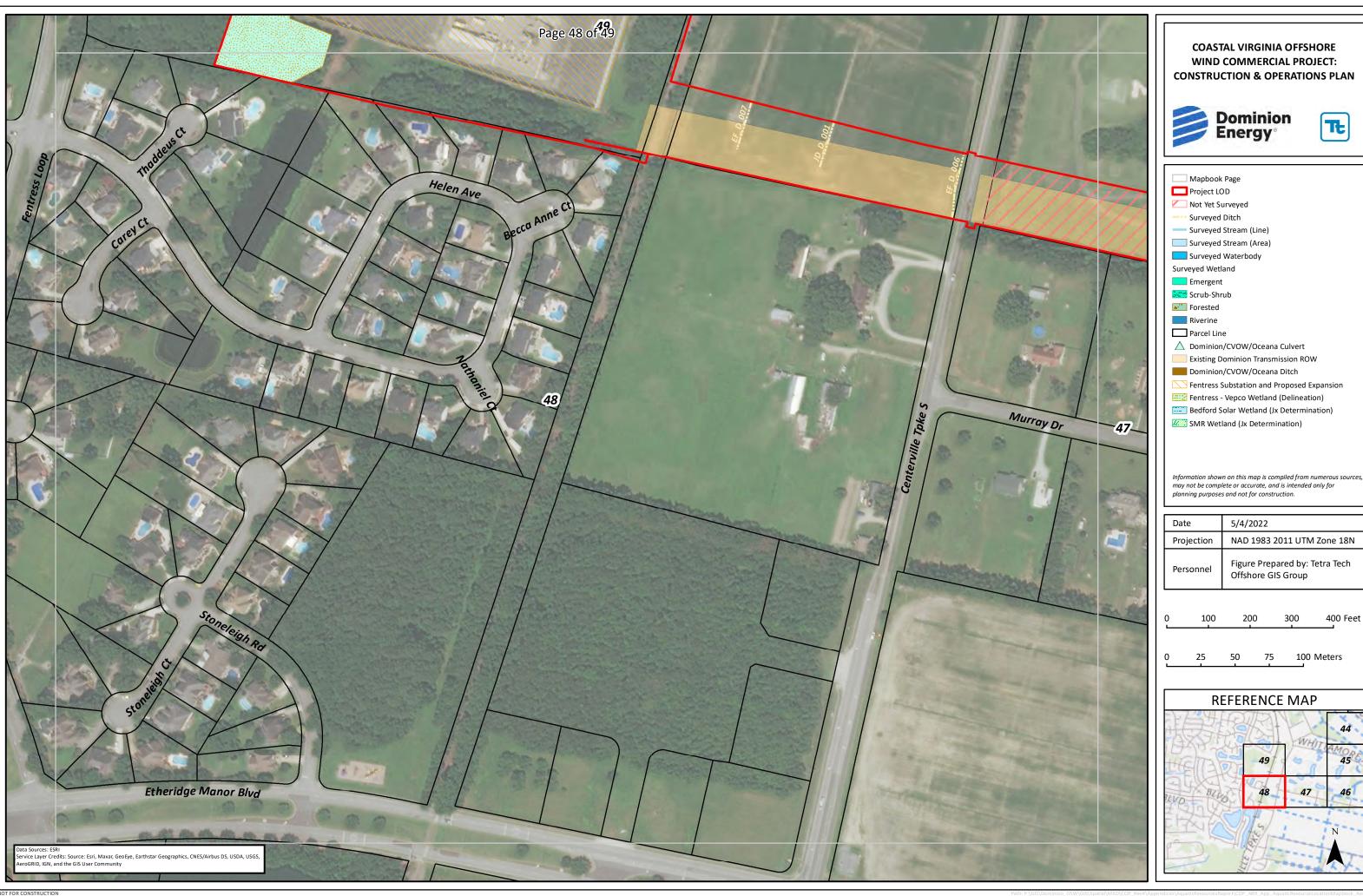














ATTACHMENT U-3: OVERSIZE TABLES

Table U-3-1: Identified Streams
Table U-3-2: Identified Wetlands

Table U-3-3: Identified NJD Aquatic Features

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Aquatic Resource Report Table U-1. Identified Streams

Stream Number ¹	Stream Reach ID	NHD Stream Name ²	County	Latitude ³	Longitude ³	Flow Regime	Water Type ⁴	Cowardin Class ⁵	Flow Direction	HUC 12	Drainage Area (square miles)	Ordinary High Water Mark Width (feet)	Mapbook Page #
1	JCros_S_001	UNT West Neck Creek	Virginia Beach	36.770331	-76.043736	Perennial	RPW	R2	South	30102051203	<0.001	4.00	21
2	JC_S_001 ⁷	UNT Lake Rudee	Virginia Beach	36.818225	-75.987355	Perennial	TNW	R1	Northeast	20403040501	0.36	70.00	3
3	JC_S_003 ⁷	Intracoastal Waterway	Chesapeake	36.723573	-76.164077	Perennial	TNW	R1	N/A ⁸	30102051201	27.20	490.00	39
4	JD_S_002	UNT North Landing River	Virginia Beach	36.768273	-76.084147	Ephemeral	NRPW	R6	South	30102051202	<0.001	0.50	26
5	JD_S_005	UNT North Landing River	Virginia Beach	36.759497	-76.099451	Perennial	RPW	R2	West	30102051202	1.34	10.00	29, 30
6	JD_S_009	UNT North Landing River	Chesapeake	36.770464	-76.045993	Intermittent	RPW	R4	South	30102051203	0.00	3.00	21
7	RD_S_001	UNT West Neck Creek	Virginia Beach	36.771812	-76.035652	Intermittent	RPW	R4	East	30102051203	0.50	6.00	19
8	RD_S_002	UNT West Neck Creek	Virginia Beach	36.770368	-76.042025	Ephemeral	NRPW	R6	Northeast	30102051203	0.11	10.00	20
9	RD_S_003	UNT West Neck Creek	Virginia Beach	36.770291	-76.040534	Ephemeral	NRPW	R6	Northwest	30102051203	<0.001	4.00	20
10	RD_S_004	UNT West Neck Creek	Virginia Beach	36.770497	-76.043066	Perennial	RPW	R2	Northwest	30102051203	<0.001	8.00	21
11	RD_S_005	UNT West Neck Creek	Virginia Beach	36.770350	-76.063370	Perennial	RPW	R6	Southeast	30102051203	<0.001	4.00	23
12	RD_S_006	UNT West Neck Creek	Virginia Beach	36.770108	-76.063184	Ephemeral	NRPW	R6	Northeast	30102051203	0.02	3.00	23
13	RD_S_007	UNT West Neck Creek	Virginia Beach	36.770073	-76.062926	Ephemeral	NRPW	R6	North	30102051203	<0.001	3.00	23
14	RD_S_008	UNT West Neck Creek	Virginia Beach	36.770496	-76.048759	Perennial	RPW	R2	South	30102051203	4.07	19.00	21
15	RD_S_009	West Neck Creek	Virginia Beach	36.770176	-76.055751	Perennial	RPW	R2	Southeast	30102051203	8.82	20.00	29
16	EF_D_002	UNT Pocaty River	Chesapeake	36.713086	-76.168114	Intermittent	RPW	R4	Southeast	30102051201	<0.001	7.00	41
17	EF_D_004	UNT Pocaty River	Chesapeake	36.713079	-76.168166	Intermittent	RPW	R4	North	30102051201	0.067	2.50	41
18	EF_D_013	UNT Pocaty River	Chesapeake	36.700877	-76.169709	Intermittent	RPW	R4	Southeast	30102051204	<0.001	8.00	43

Notes:

- Streams with braided channels, streams that have different flow regimes (e.g. ephemeral and intermittent) within the surveyed reach, and NHD named streams with different field stream reach identification names are counted as single streams.
- From USGS NHD (2019); see References. For identified streams without an NHD name, the identified stream was given the name, "Unnamed Tributary (UNT)", of the first named receiving waterbody.
- In decimal degrees.
- 4 RPW = Relatively Permanent Waters
 - NRPW = Non-Relatively Permanent Waters
 - TNW = Traditional Navigable Waters
- 5 From Cowardin et al. 1979; see References.
- 6 Stream Designated Use Under 9VAC25-260-10.A.
 - Navigable Waters of the U.S. under Section 10 of the Rivers and Harbors Act
- Waterways were inaccessible in the field, therefore were delineated using aerial imagery and LiDAR

Aquatic Resource Report Table U-2. Identified Wetlands

Wetland Number ¹	Wetland ID	County	Latitude ²	Longitude ²	Cowardin Class ³	HGM⁴	Water Type⁵	Associated Waterbodies	Size (Acres) ⁶	Size (square feet) ⁶	Open/Closed Boundary	Mapbook Page #
1	EF_W_001_PFO	Chesapeake	36.720139	-76.166496	PEM	Riverine	RPWWD	Intracoastal Waterway	4.48	195,297.31	Open	39, 40
2	EF_W_001-PEM	Chesapeake	36.720743	-76.166526	PFO	Riverine	RPWWD	Intracoastal Waterway	0.00	139.82	Open	39, 40
3	EF_W_002	Chesapeake	36.718323	-76.167437	PEM	Riverine	RPWWD	Intracoastal Waterway	1.59	69,196.17	Closed	40
4	EF_W_003	Chesapeake	36.713501	-76.168334	PEM	Depressional	RPWWD	UNT Pocaty River	0.11	69,196.17	Open	41
5	EF_W_004	Chesapeake	36.700803	-76.169973	PEM	Depressional	RPWWN	UNT Pocaty River	0.15	4,738.11	Open	43
6	EF_W_005	Chesapeake	36.701230	-76.169645	PEM	Depressional	RPWWN	UNT Pocaty River	0.05	6,410.88	Open	43
7	EF_W_006	Chesapeake	36.701516	-76.170189	PEM	Depressional	RPWWN	UNT Pocaty River	0.32	2,203.46	Open	43
8	EF W 008 PEM	Chesapeake	36.741368	-76.143535	PEM	Slope	TNWW	Gum Swamp	27.47	13,927.47	Open	35, 36, 37, 38, 39
9	EF_W_008_PFO	Chesapeake	36.741370	-76.143621	PFO	Slope	TNWW	Gum Swamp	7.06	1,196,503.21	Open	35, 36, 37, 38, 39
10	EF W 009	Chesapeake	36.746099	-76.133218	PEM	Slope	RPWWN	UNT North Landing River	0.27	307,355.73	Open	33, 34
11	EF_W_013	Virginia Beach	36.770597	-76.064658	PEM	Depressional	RPWWN	UNT West Neck Creek	0.42	11,783.57	Closed	23
12	JD W 004	Chesapeake	36.742982	-76.139637	PEM	Slope	RPWWD	Gum Swamp	0.11	4,988.99	Closed	35
13	JD W 005	Chesapeake	36.744654	-76.136382	PEM	Slope	RPWWD	Gum Swamp	1.61	70,054.35	Closed	34, 35
14	JD_W_006	Chesapeake	36.747150	-76.132314	PFO	Riverine	RPWWD	Stumpy Lake, North Landing River	0.00	5.56	Open	34
15	JD W 015	Virginia Beach	36.818569	-75.988490	PFO	Lacustrine	RPWWD	Lake Rudee	0.63	27,596.03	Open	3,4
16	JD W 016	Virginia Beach	36.819893	-75.990090	PFO	Riverine	RPWWD	UNT Lake Rudee	4.25	185,011.85	Open	4, 5
17	JD W 019	Virginia Beach	36.817835	-75.986478	E2EM	Lacustrine	RPWWD	Lake Rudee	0.94	40,854.63	Open	3
18	JD W 023 PEM	Virginia Beach	36.770347	-76.051416	PEM	Slope	RPWWD	West Neck Creek	1.90	82,899.15	Open	21, 22
19	JD_W_023_PFO	Virginia Beach	36.770590	-76.051505	PFO	Slope	RPWWD	West Neck Creek	0.20	8,503.12	Open	21, 22
20	RD W 001	Virginia Beach	36.769935	-76.039152	PEM	Slope	RPWWN	Unknown	0.31	13,481.70	Open	20
21	RD W 002	Virginia Beach	36.772899	-76.034937	PEM	Slope	RPWWN	UNT West Neck Creek	0.06	2,704.28	Open	19
22	RD W 003	Virginia Beach	36.770187	-76.042015	PEM	Slope	RPWWN	UNT West Neck Creek	0.16	7,141.45	Closed	20
23	RD W 004	Virginia Beach	36.770044	-76.040541	PEM	Slope	RPWWN	Unknown	0.07	2,891.66	Closed	20
24	RD W 005 PEM	Virginia Beach	36.770154	-76.062632	PEM	Slope	RPWWN	UNT West Neck Creek	0.03	1,227.07	Closed	23
25	RD W 005 PFO	Virginia Beach	36.770336	-76.062122	PFO	Slope	RPWWD	UNT West Neck Creek	0.73	31,735.91	Closed	23
26	RD W 006	Virginia Beach	36.770372	-76.062151	PEM	Slope	RPWWN	UNT West Neck Creek	0.20	8,680.43	Closed	23
27	RD W 007	Virginia Beach	36.770115	-76.061667	PEM	Depressional	RPWWN	UNT West Neck Creek	0.01	596.08	Closed	23
28	RD W 008	Virginia Beach	36.770356	-76.063256	PEM	Slope	RPWWN	UNT West Neck Creek	0.01	416.13	Closed	23
29	RD W 009	Virginia Beach	36.776442	-76.031103	PEM	Slope	RPWWN	UNT West Neck Creek	0.01	312.89	Closed	21
30	RD W 010	Virginia Beach	36.770363	-76.068686	PEM	Slope	RPWWN	Unknown	0.60	26,156.67	Open	23, 24
31	RD_W_011	Virginia Beach	36.770314	-76.048240	PFO	Slope	RPWWN	UNT West Neck Creek	0.24	10,516.11	Closed	21
32	JC_W_101	Virginia Beach	36.800897	-76.004192	PEM	Slope	ISOLATE	Isolated	0.02	693.97	Open	10
33	JC_W_1001	Virginia Beach	36.819082	-76.000969	PFO	Slope	RPWWN	Unknown	0.02	1,064.51	Open	10
34	Jcros W 010 PEM	Virginia Beach	36.770091	-76.060630	PEM	Riverine	RPWWD	West Neck Creek	2.24	97,508.97	Open	22, 23
35	Jcros_W_010_PFO	Virginia Beach	36.770091	-76.060630	PFO	Riverine	RPWWD	West Neck Creek	4.07	177,157.06	Open	22, 23

Notes:

- 1 Wetlands with multiple contiguous Cowardin types (e.g. PEM and PSS) are considered a single wetland system and are counted as one wetland.
- 2 In decimal degrees. Coordinates show wetland test pit locations.
- 3 PEM = Palustrine Emergent
 - PFO = Palustrine Forested
 - PSS = Palustrine Scrub-Shrub
 - PUB = Palustrine Unconsolidated Bottom
- 4 HGM = Hydrogeomorphic
- 5 RPWWD = Wetlands directly abutting Relatively Permanent Waters (RPWs) that flow directly or indirectly into Traditional Navigable Waterways (TNWs)
 - RPWWN = Wetlands adjacent but not directly abutting RPWs that flow directly or indirectly into TNWs
 - NRPWW = Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
 - Isolate = Isolated (interstate or intrastate) waters, including isolated wetlands
- Size of wetlands with open boundaries may be larger than shown in this table. Wetland size shown is the size of the wetland delineated and illustrated on Aquatic Resource Location Map.

Aquatic Resource Report Table U-3. Identified Non-JD Features

				<u> Idel</u>	tilled Holl	JD realure	<u> </u>			
Ditch Number	Ditch ID	County	Latitude ²	Longitude ³	Flow Regime	Water Type ⁴	Flow Direction	Ordinary High Water Mark Width (feet)	Top of Bank Width	Mapbook Page #
1	EF_D_001	Chesapeake	36.717404	-76.1670901	Ephemeral	NRPW	West	3.00	5.00	40
2	EF_D_003	Chesapeake	36.7163504	-76.167769	Ephemeral	NRPW	No data	1.00	1.00	40
3	EF_D_005	Chesapeake	36.7135525	-76.1683479	Ephemeral	NRPW	Southeast	1.00	5.00	41
4	EF_D_006	Chesapeake	36.688671	-76.185947	Ephemeral	NRPW	No data	0.00	13.00	48
5	EF_D_007	Chesapeake	36.688647	-76.187821	Ephemeral	NRPW	No data	0.00	3.50	48
6	EF_D_010	Chesapeake	36.6991464	-76.1698884	Ephemeral	NRPW	No data	3.00	4.00	44
7	EF_D_011	Chesapeake	36.700165	-76.170037	Ephemeral	NRPW	No data	0.00	0.00	43
8	EF_D_012	Chesapeake	36.699958	-76.169736	Ephemeral	NRPW	No data	0.00	3.50	43
9	EF_D_014	Chesapeake	36.701354	-76.169647	Ephemeral	NRPW	No data	0.00	3.50	43
10	EF_D_015	Chesapeake	36.701892	-76.170069	Ephemeral	NRPW	No data	0.00	3.50	43
11	EF_D_034	Virginia Beach	36.737154	-76.0844721	Ephemeral	NRPW	No data	0.00	3.00	41
12	EF_D_061	Virginia Beach	36.7706861	-76.0669395	Ephemeral	NRPW	Northeast	0.00	6.00	23
13	EF_D_062	Virginia Beach	36.7706741	-76.0665306	Ephemeral	NRPW	Northeast	0.00	6.00	23
14	EF_D_063	Virginia Beach	36.7706712	-76.0660662	Ephemeral	NRPW	Northeast	0.00	8.00	23
15	EF_D_064	Virginia Beach	36.770356	-76.065869	Ephemeral	NRPW	Northeast	0.00	8.00	23
16	EF_D_065	Virginia Beach	36.770025	-76.065298	Ephemeral	NRPW	Northeast	0.00	8.00	23
17	JC_D_101	Virginia Beach	36.798326	-76.021536	Ephemeral	NRPW	No data	1.00	2.00	12
18	JC_D_102	Virginia Beach	36.799045	-76.023659	Ephemeral	NRPW	South	3.00	5.00	12
19	JC_D_103	Virginia Beach	36.797467	-76.022861	Ephemeral	NRPW	South	5.00	10.00	12
20	JC_D_104	Virginia Beach	36.79728	-76.022723	Ephemeral	NRPW	Southeast	3.00	10.00	13
21	JC_D_105	Virginia Beach	36.795811	-76.023016	Ephemeral	NRPW	No data	5.00	10.00	13
22	JC_D_106	Virginia Beach	36.796686	-76.022246 -76.022173	Ephemeral	NRPW	South	5.00	10.00	13
23	JC_D_107	Virginia Beach	36.796772 36.800046	-76.022173 -76.010429	Ephemeral	NRPW	No data	1.00	4.00	13
24 25	JC_D_108	Virginia Beach	36.799857	-76.010429	Ephemeral	NRPW NRPW	Southeast	0.00	5.00 7.00	10 10
	JC_D_109 JC D 110	Virginia Beach	36.799566	-76.009207	Ephemeral	NRPW	Southeast	0.00 3.00		10
26 27	JC_D_110 JC D 111	Virginia Beach	36.799902	-76.004971	Ephemeral Ephemeral	NRPW	East	0.00	7.00 5.00	10
28	JC_D_111 JC D 112	Virginia Beach Virginia Beach	36.804103	-76.004971	Ephemeral	NRPW	East South	4.00	8.00	9
29	JC_D_112 JC D 113	Virginia Beach		-76.004539	Ephemeral	NRPW	East	1.00	3.00	9
30	JC_D_113 JC D 114	Virginia Beach	36.810768	-76.004524	Ephemeral	NRPW	East	5.00	9.00	8
31	JC D 115	Virginia Beach	36.819205	-76.000409	Ephemeral	NRPW	East	0.50	2.00	6
32	Jcros D 006	Virginia Beach	36.804103	-76.004634	Ephemeral	NRPW	South	0.00	4.00	14, 15
33	Jcros D 007	Virginia Beach	36.803987	-76.004539	Ephemeral	NRPW	South	0.00	4.00	14, 15
34	Jcros D 008	Virginia Beach	36.79159797		Ephemeral	NRPW	South	0.00	4.00	14, 15
35	Jcros D 009	Virginia Beach	36.791454	-76.017087	Ephemeral	NRPW	South	0.00	4.00	14, 15
36	Jcros D 010	Virginia Beach	36.792589	-76.016579	Ephemeral	NRPW	South	0.00	4.00	14, 15
37	Jcros D 011	Virginia Beach	36.791514	-76.018157	Ephemeral	NRPW	West	0.00	0.00	15
38	JD D 001	Chesapeake	36.688534	-76.1871415	Ephemeral	NRPW	No data	0.00	3.50	48
39	JD D 014	Virginia Beach	36.766688	-76.082629	Ephemeral	NRPW	East	0.00	5.00	27
40	JD D 016	Virginia Beach	36.7650408	-76.085776	Ephemeral	NRPW	East	0.00	4.00	27
41	JD D 017	Virginia Beach	36.764351	-76.086121	Ephemeral	NRPW	East	0.00	4.00	27
42	JD_D_018	Virginia Beach	36.763837	-76.087265	Ephemeral	NRPW	No data	No data	No data	27
43	JD_D_019	Virginia Beach	36.762871	-76.08801	Ephemeral	NRPW	East	0.50	4.00	28
44	JD_D_020	Virginia Beach	36.761896	-76.089716	Ephemeral	NRPW	East	0.00	3.00	28

Aquatic Resource Report Table U-3. Identified Non-JD Features

Ditch Number	Ditch ID	County	Latitude ²		Flow Regime		Flow Direction	Ordinary High Water Mark Width (feet)	Top of Bank Width	Mapbook Page #
45	JD D 053	Virginia Beach	36.768804	-76.074741	Ephemeral	NRPW	East	0.00	3.00	28
46	JD D 054	Virginia Beach	36.760922	-76.094237	Ephemeral	NRPW	South	0.00	8.00	28
47	JD D 055	Virginia Beach	36.7608405	-76.095153	Ephemeral	NRPW	South	0.00	10.00	28
48	JD D 056	Virginia Beach	36.76024407	-76.0961207	Ephemeral	NRPW	South	0.00	10.00	28
49	JD D 057	Virginia Beach	36.7604843	-76.097261	Ephemeral	NRPW	South	0.00	10.00	29
50	JD D 058	Virginia Beach	36.760309	-76.098286	Ephemeral	NRPW	Southwest	0.00	8.00	29
51	JD D 059	Virginia Beach	36.774616	-76.033707	Ephemeral	NRPW	East	0.00	3.00	19
52	JD D 060	Virginia Beach	36.775102	-76.033348	Ephemeral	NRPW	No data	No data	No data	19
53	JD D 061	Virginia Beach	36.775272	-76.032587	Ephemeral	NRPW	No data	No data	No data	19
54	JD_D_062	Virginia Beach	36.775636	-76.032092	Ephemeral	NRPW	No data	No data	No data	19
55	JD_D_063	Virginia Beach	36.776239	-76.031881	Ephemeral	NRPW	No data	No data	No data	19
56	JD_D_064	Virginia Beach	36.776383	-76.030951	Ephemeral	NRPW	No data	No data	No data	18, 19
57	JD_D_065	Virginia Beach	36.77715	-76.030707	Ephemeral	NRPW	East	0.00	2.00	18
58	JD_D_066	Virginia Beach	36.777605	-76.030156	Ephemeral	NRPW	No data	No data	No data	18
59	JD_D_067	Virginia Beach	36.778014	-76.0295809	Ephemeral	NRPW	No data	No data	No data	18
60	JD_D_068	Virginia Beach	36.819607	-75.9895778	Ephemeral	NRPW	South	0.00	10.00	4
61	JD_D_069	Virginia Beach	36.820325	-75.9973861	Ephemeral	NRPW	West	0.00	3.00	5, 6
62	JD_D_070	Virginia Beach	36.8195215	-75.9991619	Ephemeral	NRPW	West	0.00	2.00	6
63	JD_D_071	Virginia Beach	36.818774	-75.999985	Ephemeral	NRPW	North	0.00	2.00	6
64	JD_D_076	Virginia Beach	36.800328	-76.011108	Ephemeral	NRPW	No data	0.00	2.00	10
65	JD_D_083	Virginia Beach	36.770471	-76.044058	Ephemeral	NRPW	No data	No data	No data	21
66	RD_D_002	Virginia Beach	36.772772	-76.034824	Ephemeral	NRPW	South	0.00	6.00	19
67	RD_D_004	Virginia Beach	36.770369	-76.063314	Ephemeral	NRPW	South	0.00	8.00	23

Notes:

- From USGS NHD (2019); see References. For identified streams without an NHD name, the identified stream was given the name, "Unnamed Tributary (UNT)", of the first named receiving waterbody.
- 2 In decimal degrees.
- 4 RPW = Relatively Permanent Waters
 NRPW = Non-Relatively Permanent Waters
 TNW = Traditional Navigable Waters
- 5 From Cowardin et al. 1979; see References.

ATTACHMENT U-4: STREAM DATA FORMS AND PHOTO LOG

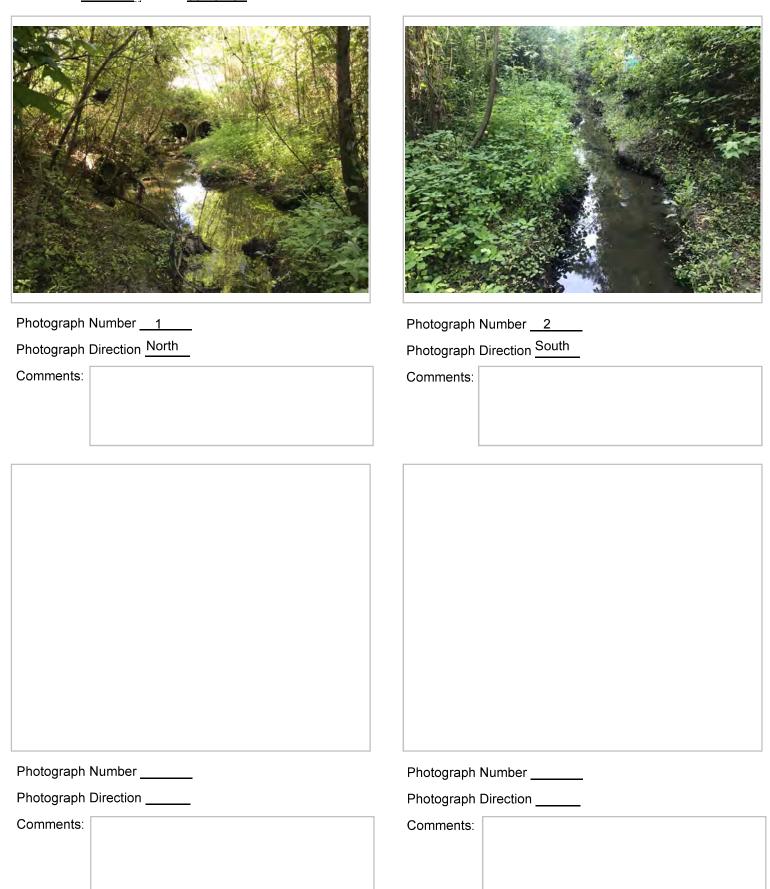
May 2022 Page U-4-1

NC DWQ Stream Identification Form Version 4.11

Project/Site: Dominion CVOW Latitude: 36.7703313

Date: 5/19/2021	Project/Site: Don	ninion CVOW	Latitude: 36.7703313		
Evaluator: J. Crosby and M. Buckalew	County: Virginia	a Beach	Longitude: -76.043736		
Total Points: Stream is at least intermittent 36.5 f ≥ 19 or perennial if ≥ 30*	Stream Determin	nation (circle one) rmittent Perennial	Other e.g. Quad Name:		
A. Geomorphology (Subtotal = 16.5)	Absent	Weak	Moderate	Strong	
a. Continuity of channel bed and bank	0	1	2	3	
. Sinuosity of channel along thalweg	0	1	2	3	
i. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3	
. Particle size of stream substrate	0	1	2	3	
. Active/relict floodplain	0	1	2	3	
. Depositional bars or benches	0	1	2	3	
'. Recent alluvial deposits	0	1	2	3	
. Headcuts	0	1	2	3	
. Grade control	0	0.5	1	1.5	
Natural valley	0	0.5	1	1.5	
Second or greater order channel	No	= 0	Yes = 3		
artificial ditches are not rated; see discussions in manual					
3. Hydrology (Subtotal = <u>11</u>)	T T	ř			
2. Presence of Baseflow	0	1	2	3	
Iron oxidizing bacteria	0	1	2	3	
4. Leaf litter	1.5	1	0.5	0	
5. Sediment on plants or debris	0	0.5	1	1.5	
Organic debris lines or piles	0	0.5		1.5	
7. Soil-based evidence of high water table?	No	= 0	Yes	= 3	
C. Biology (Subtotal = 9)		728			
8. Fibrous roots in streambed	3	2	1	0	
Rooted upland plants in streambed	3	2	1	0	
			721		
0. Macrobenthos (note diversity and abundance)	0	1	2	3	
1. Aquatic Mollusks	0	1	2	3	
1. Aquatic Mollusks 2. Fish	0	1 0.5	2	3 1.5	
1. Aquatic Mollusks 22. Fish 3. Crayfish	0 0	1 0.5 0.5	2 1 1	3 1.5 1.5	
21. Aquatic Mollusks 22. Fish 23. Crayfish 24. Amphibians	0 0 0	1 0.5 0.5 0.5	2 1 1	3 1.5 1.5 1.5	
21. Aquatic Mollusks 22. Fish 23. Crayfish 24. Amphibians 25. Algae	0 0	1 0.5 0.5 0.5 0.5	2 1 1 1	3 1.5 1.5 1.5 1.5	
21. Aquatic Mollusks 22. Fish 23. Crayfish 24. Amphibians 25. Algae 26. Wetland plants in streambed	0 0 0 0 0 0	1 0.5 0.5 0.5 0.5 0.5 FACW = 0.75; OBL	2 1 1 1	3 1.5 1.5 1.5 1.5	
21. Aquatic Mollusks 22. Fish 23. Crayfish 24. Amphibians 25. Algae	0 0 0 0 0 0	1 0.5 0.5 0.5 0.5 0.5 FACW = 0.75; OBL	2 1 1 1	3 1.5 1.5 1.5 1.5	

Stream ID <u>Jcros S 001</u> Date <u>05/19/202</u>1



NC DWQ Stream Identification Form Version 4.11

Date: 5/11/2021	Project/Site: Do	minion CVOW	Latitude: 36.76	8273	
Evaluator: J. D'Augustine, L. Donston	County: Virginia	Beach	Longitude: -76	.084147	
Total Points: Stream is at least intermittent 15.25 if ≥ 19 or perennial if ≥ 30*		ination (circle one) ermittent Perennial	Other e.g. Quad Name: Princess Anne,		
A. Geomorphology (Subtotal = 5_)	Absent	Weak	Moderate	Strong	
1 ^{a.} Continuity of channel bed and bank	0	1	2	3	
2. Sinuosity of channel along thalweg		1	2	3	
In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3	
4. Particle size of stream substrate	0	1	2	3	
5. Active/relict floodplain	0	1	2	3	
6. Depositional bars or benches	0	1	2	3	
7. Recent alluvial deposits	0	1	2	3	
8. Headcuts	0	1	2	3	
9. Grade control	0	0.5	1	1.5	
10. Natural valley	0	0.5	1	1.5	
11. Second or greater order channel	No	o = 0	Yes = 3		
artificial ditches are not rated; see discussions in manual					
B. Hydrology (Subtotal = <u>3</u>)					
12. Presence of Baseflow	0	1	2	3	
13. Iron oxidizing bacteria	0	1	2	3	
14. Leaf litter	1.5	1	0.5	0	
15. Sediment on plants or debris	0	0.5	1	1.5	
16. Organic debris lines or piles	0	0.5	1	1.5	
17. Soil-based evidence of high water table?	No	o = 0	Yes :	= 3	
C. Biology (Subtotal = <u>7.25</u>)			-		
18. Fibrous roots in streambed	3	2	1	0	
19. Rooted upland plants in streambed	3	2	1	0	
20. Macrobenthos (note diversity and abundance)	0	1	2	3	
21. Aquatic Mollusks	0	1	2	3	
22. Fish	0	0.5	1	1.5	
23. Crayfish	0	0.5	1	1.5	
24. Amphibians	0	0.5	1	1.5	
25. Algae	0	0.5	1	1.5	
		FACW = 0.75: OB	L = 1.5 Other = 0		
26. Wetland plants in streambed		171011 0.70,	_ 110 041101 0		
26. Wetland plants in streambed *perennial streams may also be identified using other method	s. See p. 35 of manua				

Photograph Log

Date: 5/11/21	Feature Name: JD_S_002
Photograph Direction <u>NW</u>	Photograph Direction <u>SE</u>
Comments:	Comments:
Photograph Direction	Photograph Direction
Comments:	Comments:

JD S 005 – UT of North Landing River

NC DWQ Stream Identification Form Version 4.11

Date: 5/14/2021	Project/Site: Dominion CVOW	Latitude: 36.759497
Evaluator: J. D'Augustine, R. Brydon	County: Virginia Beach	Longitude: -76.099451
Total Points: Stream is at least intermittent 30 if ≥ 19 or perennial if $\geq 30^*$	Stream Determination (circle one) Ephemeral Intermittent Perennial	Other e.g. Quad Name:

if ≥ 19 or perennial if ≥ 30*	Ephemeral Intermittent Perennial e.g. Quad Name:						
A. Geomorphology (Subtotal = 11.5)	Absent	Weak	Moderate	Strong			
1 ^{a.} Continuity of channel bed and bank	0	1	2	3			
2. Sinuosity of channel along thalweg	0	1	2	3			
In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3			
4. Particle size of stream substrate	0	1	2	3			
5. Active/relict floodplain	0	1	2	3			
6. Depositional bars or benches	0	1	2	3			
7. Recent alluvial deposits	0	1	2	3			
8. Headcuts	0	1	2	3			
9. Grade control	0	0.5	1	1.5			
10. Natural valley	0	0.5	1	1.5			
11. Second or greater order channel	No	0 = 0	Yes :	= 3			
^a artificial ditches are not rated; see discussions in manual	'		·				
B. Hydrology (Subtotal = 8.5)							
12. Presence of Baseflow	0	1	2	3			
13. Iron oxidizing bacteria	0	1	2	3			
14. Leaf litter	1.5	1	0.5	0			
15. Sediment on plants or debris	0	0.5	1	1.5			
16. Organic debris lines or piles	0	0.5	1	1.5			
17. Soil-based evidence of high water table?	No	0 = 0	Yes:	= 3			
C. Biology (Subtotal = <u>10</u>)							
18. Fibrous roots in streambed	3	2	1	0			
19. Rooted upland plants in streambed	3	2	1	0			
20. Macrobenthos (note diversity and abundance)	0	1	2	3			
21. Aquatic Mollusks	0	1	2	3			
22. Fish	0	0.5	1	1.5			
23. Crayfish	0	0.5	1	1.5			
24. Amphibians	0	0.5	1	1.5			
25. Algae	0	0.5	1	1.5			
		FACW = 0.75;	OBL = 1.5 Other = 0				
26. Wetland plants in streambed		•					
26. Wetland plants in streambed *perennial streams may also be identified using other method	ls. See p. 35 of manua	I.					

Photograph Log

Date: 5/14/21 Feature Name: JD_S_005 Photograph Direction East Photograph Direction West Comments: Comments: Photograph Direction _____ Photograph Direction _____ Comments: Comments:

NC DWQ Stream Identification Form Version 4.11

Date: 5/19/2021	Project/Site: Do	ominion CVOW	Latitude: 36.770464					
Evaluator: J. D'Augustine, K. Walls	County: Chesap	eake	Longitude: -76.045993					
Total Points: Stream is at least intermittent 20 if \geq 19 or perennial if \geq 30*	Stream Determ Ephemeral Inte	ination (circle one) ermittent Perennial	Other e.g. Quad Name:					
A. Geomorphology (Subtotal =7)	Absent	Weak	Moderate	Strong				
1 ^a Continuity of channel bed and bank	0	1	2	3				
2. Sinuosity of channel along thalweg	0	1	2	3				
In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3				
Particle size of stream substrate	0	1	2	3				
5. Active/relict floodplain	0	1	2	3				
6. Depositional bars or benches	0	1	2	3				
7. Recent alluvial deposits	0	1	2	3				
8. Headcuts	0	1	2	3				
9. Grade control	0	0.5	1	1.5				
10. Natural valley	0	0.5	1	1.5				
11. Second or greater order channel	N	o = 0	Yes = 3					
a artificial ditches are not rated; see discussions in manual								
B. Hydrology (Subtotal =7)								
12. Presence of Baseflow	0	1	2	3				
13. Iron oxidizing bacteria	0	1	2	3				
14. Leaf litter	1.5	1	0.5	0				
15. Sediment on plants or debris	0	0.5	1	1.5				
16. Organic debris lines or piles	0	0.5	:1	1.5				
17. Soil-based evidence of high water table?	N	o = 0	Yes	= 3				
C. Biology (Subtotal = 6		**************************************		ou.				
18. Fibrous roots in streambed	3	2	1	0				
19. Rooted upland plants in streambed	3	2	1	0				
20. Macrobenthos (note diversity and abundance)	0	1	2	3				
21. Aquatic Mollusks	0	1	2	3				
22. Fish	0	0.5	1	1.5				
23. Crayfish	0	0.5	1	1.5				
0.4. A	0	0.5	1	1.5				
24. Amphibians		0.5	1	1.5				
24. Ampnibians 25. Algae	0							
		FACW = 0.75; OB	L = 1.5 Other = ()				
25. Algae			L = 1.5 <u>Other = (</u>	<u>)</u>				

Photograph Log Date: <u>5/18/21</u> Feature Name: JD_S_009 Photograph Direction North Photograph Direction South Comments: Comments:

Photograph Direction _____

Comments:

Tetra Tech Photo Log Form

Photograph Direction _____

Comments:

STREAM ID			STREAM NA	STREAM NAME UT of West Neck Creek					
CLIENT Don	ninion			PROJECT NAME Dominion CVOW					
LAT 36.7718		ONG -76.03565				COUNTY Virginia Beach			
INVESTIGATO	DRS R. De	elahunty		DATE 05/17/2021					
WATER TYPE TNW	RPW v	/ NRPW	FLOW REG Perennial	FLOW REGIME Perennial Intermittent F Ephemeral					
		<u> </u>		j.					
CHANNEL FEATURES Water Depth: 0.00 Water Width: 0.0 Ordinary High Water			/idth:8.0ft eight:	6.0ft	Stre	Sinuosity ✓ Low Medium High Gradient ✓ Flat Moderate Severe (0.5/100 ft) (2 ft/100 ft) (10 ft/100 ft) Stream Erosion None Moderate Heavy Artificial, Modified or Channelized No Within Roadside Ditch Yes No Culvert Present Yes ✓ No			
						ert Material:			
						ert Size: in			
FLOW CHARACTERISTICS Water Present ✓ No water, stream — Stream bed mois — Standing water — Flowing water Velocity — Fast — Mod — Slow			tream bed dry moist ater eer		Prop Morp Riffle Pool	portion of Reach Repres	r if water present) %		
INORGANIC SUBSTRATE COMPON (should add up to 100%)			-			ANIC SUBSTRATE COM s not necessarily add up	-		
Substrate Type	Dia	meter	% Composition in Sampling Reach	Substrat Type	I Characteristic I '				
Bedrock				Detritus		sticks, wood, coarse			
Boulder		56 mm (10")		Bountao		plant materials (CPOM)			
Cobble	64-256	6 mm (2.5"-10")		Muck-Muck	d l	black, very fine organic			
Gravel		mm (0.1"-2.5")				(FPOM)			
Sand	0.06	-2mm (gritty)	80						
Silt		4-0.06 mm	20	Marl		grey, shell fragments			
Clay < 0.004 mm (slick) Predominant Surrounding Landa ✓ Forest — Commercia — Field/Pasture — Industrial — Agricultural — Residential — ROW — Other: Canopy Cover — Open — Partly shada ✓ Shaded				ıl	\	dplain Width Nide > 30ft Modera Narrow <15ft	te 15-30ft		
MAC	ROINVER	TEBRATES/OTH	HER WILDLIFE OBS	SERVED OR	ОТНІ	ER NOTES AND OBSER	VATIONS		

Photograph Log

Date: 5/17/21	Feature Name: RD_S_001





Photograph	Direction	North

Comments: View facing upstream.

Photograph	Direction 5	South

Comments: View facing downstream.

Photograph Direction _____

Comments:

Photograph Direction _____

Comments:

Tetra Tech Photo Log Form

STREAM ID	RD S 00:	2	STREAM NA	ME UT of	West Neck Creek	
CLIENT Don	ninion		PROJECT N	AME Domin		
		ONG -76.04202		nia	COUNTY Virginia Bea	ch
INVESTIGATO	ors R. D	elahunty			DATE 05/18/2021	
WATER TYPE TNW	RPW	NRPW _	FLOW REG Perennial	IME Intermi	ittent Ephemeral 🗸	
ſ		Estimato Moa	euromonte	Ĭ	Sinuscity / Low I	Modium High
CHANNEL FE	ATURES	Top of Bank H LB 1.0 ft Water Depth: Water Width: Ordinary High	Vidth: 10.0 ft leight: RB 1.0 0.00 in 0.0 ft Water Mark (Width): Water Mark (Height)		Sinuosity ✓ Low No No No No No No No No No No No No Yes	derate Severe (100 ft) (10 ft/100 ft) Heavy nelized No
FLOW CHARACTER	ISTICS	Water Preser ✓ No water, s — Stream bed — Standing w — Flowing wa Velocity — Fast — Slow	tream bed dry I moist vater ter		Proportion of Reach Repres Morphology Types (Only ente Riffle % Run Pool % Turbidity Clear Slightly to Other	er if water present) %
INOR		UBSTRATE COI			ORGANIC SUBSTRATE COM (does not necessarily add u	-
Substrate Type	Dia	meter	% Composition in Sampling Reach	Substrat Type	te Characteristic	% Composition in Sampling Area
Bedrock				Detritus	sticks, wood, coarse	
Boulder		56 mm (10")		20111111	plant materials (CPOM)	100
Cobble		6 mm (2.5"-10")		Muck-Muc	black, very fine organic	
Gravel		mm (0.1"-2.5")			(FPOM)	
Sand		-2mm (gritty)	40	ļ <u></u> .		
Silt Clay		04-0.06 mm 04 mm (slick)	40 60	Marl	grey, shell fragments	
WATERSHED FEATURES		` ′	Surrounding Landu — Commercia ure — Industrial al — Residentia — Other:	al	Floodplain Width Wide > 30ft Modera Narrow <15ft	1 ate 15-30ft
MAC	ROINVER	TEBRATES/OT	HER WILDLIFE OBS	SERVED OR	OTHER NOTES AND OBSER	RVATIONS
mAO		. I DIGITEO OT	WEDEN E ODG		STIER NOTES AND OBSE	

Stream ID RD_S_002 Date 05/18/2021



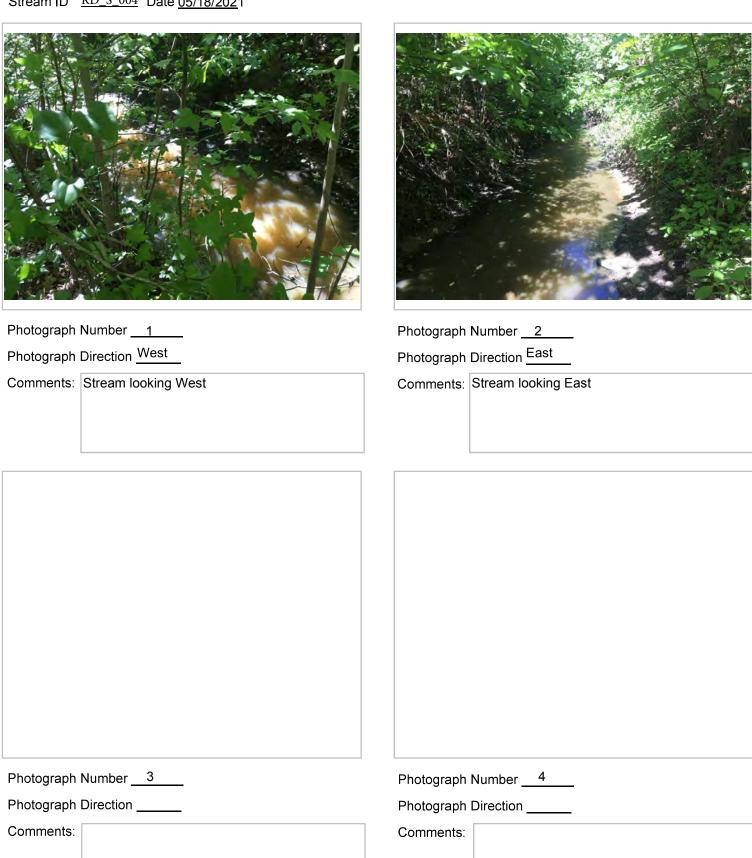
STREAM ID	RD S 00	3			Vest Neck Creek	
CLIENT Don	ninion		PROJECT N			
LAT 36.7702	91 <u>L</u>	ONG -76.04053			COUNTY Virginia Bea	ch
INVESTIGATO	ORS R. D	elahunty			DATE 05/18/2021	
WATER TYPE TNW	RPW	NRPW 🗸	FLOW REG Perennial	IME Intermitt	tent Ephemeral 🗸	
CHANNEL FE		Top of Bank H LB15.0ft Water Depth: Water Width:_ Ordinary High Ordinary High Flow Direction Water Presen No water, st Stream bed Standing wat Flowing wat Velocity	//idth:4.0ft leight:	ftft :in	Sinuosity ✓ Low ! Gradient ✓ Flat Mo (2 ft/2 ft/2 ft/2 ft/2 ft/2 ft/2 ft/2 ft/	oderate Severe /100 ft) Heavy nelized O No sented by Stream er if water present) %
		— Fast — Slow	Moderate			
INIOD	CANIC	IDSTRATE COM	MDONENTS		DEANIC SUBSTRATE COM	ADONENTS
INOR	_	UBSTRATE COM Id add up to 100	-	_	DRGANIC SUBSTRATE COM (does not necessarily add u	
Substrate Type	(shou		-	_	(does not necessarily add u	p to 100%)
Substrate	(shou	ld add up to 100	% Composition in	Substrate Type	Characteristic sticks, wood, coarse	p to 100%) % Composition in Sampling Area
Substrate Type	Dia	neter (10")	% Composition in	Substrate	Characteristic	p to 100%) % Composition in Sampling Area
Substrate Type Bedrock	Dia	ld add up to 100 meter	% Composition in	Substrate Type Detritus	Characteristic sticks, wood, coarse plant materials (CPOM) black, very fine organic	y to 100%) % Composition in Sampling Area
Substrate Type Bedrock Boulder Cobble Gravel	Shou Dia	meter 56 mm (10") mm (2.5"-10") mm (0.1"-2.5")	% Composition in	Substrate Type	Characteristic sticks, wood, coarse plant materials (CPOM)	y to 100%) % Composition in Sampling Area
Substrate Type Bedrock Boulder Cobble Gravel Sand	Shoul Dia	meter 56 mm (10") 5 mm (2.5"-10") 7 mm (0.1"-2.5") 7 -2mm (gritty)	%) 100 % Composition in Sampling Reach	Substrate Type Detritus Muck-Mud	Characteristic sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM)	y to 100%) % Composition in Sampling Area
Substrate Type Bedrock Boulder Cobble Gravel Sand Silt	Should Dia	meter 56 mm (10") 6 mm (2.5"-10") 7 mm (0.1"-2.5") 7-2mm (gritty) 14-0.06 mm	%) 100 % Composition in Sampling Reach	Substrate Type Detritus	Characteristic sticks, wood, coarse plant materials (CPOM) black, very fine organic	y to 100%) % Composition in Sampling Area
Substrate Type Bedrock Boulder Cobble Gravel Sand	Should Dia	meter 56 mm (10") 5 mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) 14-0.06 mm 14 mm (slick) Predominant Forest	70 30 Surrounding Landu — Commercia ure — Industrial — Residential — Other:	Substrate Type Detritus Muck-Mud Marl	Characteristic sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM) grey, shell fragments	y to 100%) % Composition in Sampling Area
Substrate Type Bedrock Boulder Cobble Gravel Sand Silt Clay	Should Dia	meter 56 mm (10") mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) 14-0.06 mm 14 mm (slick) Predominant Forest Field/Paste Agricultura ROW Canopy Cove Open	% Composition in Sampling Reach 70 30 Surrounding Landu — Commercia — Industrial — Residential — Other:	Substrate Type Detritus Muck-Mud Marl	Characteristic sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM) grey, shell fragments Floodplain Width Wide > 30ft Modera	p to 100%) % Composition in Sampling Area 100
Substrate Type Bedrock Boulder Cobble Gravel Sand Silt Clay WATERSHED FEATURES	Shoul Dia	meter 56 mm (10") mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) 14-0.06 mm 14 mm (slick) Predominant Forest Field/Paste Agricultura ROW Canopy Cove Open Shaded	70 30 Surrounding Landu — Commercia ure — Industrial — Other: — Partly shade	Substrate Type Detritus Muck-Mud Marl	Characteristic sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM) grey, shell fragments Floodplain Width Wide > 30ft Modera	p to 100%) % Composition in Sampling Area 100 ate 15-30ft

Stream ID RD_S_003 Date 05/18/2021



STREAM ID		4			West Neck Creek	
CLIENT Don	ninion		PROJECT N		nion CVOW	
		ONG -76.04306			COUNTY Virginia Bea	ch
INVESTIGATO	ORS R. D	elahunty			DATE 05/18/2021	
WATE <u>R T</u> YPE			FLOW REG		<u> </u>	
TNW	RPW ,	NRPW	Perennial 🗸	Interm	ittent Ephemeral	
		Estimate Mea	surements		Sinuosity ✓ Low I	Medium High
		Top of Bank V	Vidth: <u>9.0</u> ft		Gradient ✓ Flat Mo	odorata Savara
		Top of Bank H	leight:		(0.5/100 ft) (2 ft/	/100 ft) (10 ft/100 ft)
		LB 2.5 ft	RB 2.5	ft	Stream Erosion	, , ,
		Water Depth:	6.00 in		✓ None Moderate	Heavy
		Water Width:			Artificial, Modified or Chan	nelized
CHANNEL FE	ATURES	I -	Water Mark (Width):	8.0 ft	Yes <u>✓</u> No)
		1	Water Mark (Height)		Within Roadside Ditch	
					Yes _✓ No)
		Flow Direction	I: MOLUIWEST	-	Culvert Present Yes _	No
					Culvert Material:	
					Culvert Size: in	
		Woter Description	<u> </u>			antad by Ct
		Water Preser No water, s			Proportion of Reach Repres Morphology Types (Only enter	
		Stream bed			Riffle % Run 10	00 % ' ′
FLOW		Standing w			Pool %	
CHARACTER	ISTICS	✓ Flowing wa	ter		Turbidity	
		Velocity			Clear <u>✓</u> Slightly to	urbid Turbid
		Fast —	Moderate		Other	
		✓ Slow				
INOR		UBSTRATE CO			ORGANIC SUBSTRATE COM	
	(shou	ld add up to 100		0	(does not necessarily add u	,
Substrate Type	Dia	meter	% Composition in Sampling Reach	Substra Type	te Characteristic	% Composition in Sampling Area
Bedrock			24	1,700	sticks, wood, coarse	
Boulder	> 21	56 mm (10")		Detritus	plant materials (CPOM)	10
Cobble		6 mm (2.5"-10")	F		black very fine organic	.0
Gravel		mm (0.1"-2.5")		Muck-Mu	d black, very line organic (FPOM)	
Sand		-2mm (gritty)	F		` '	
Silt		04-0.06 mm	40	Marl	grey, shell fragments	
Clay		04 mm (slick)	60		g j,	
J.W.J	1 3.00	, ,	Surrounding Landu	ıse	Floodplain Width	
		Forest	Commercia		Wide > 30ft Modera	ate 15-30ft
			ure Industrial		Narrow <15ft	
WATERSHED		Agricultura				
FEATURES		✓ ROW	Other:			
		Canopy Cove	er			
		✓ Open	Partly shade	ed		
		Shaded				
MAC	ROINVER	TEBRATES/OT	HER WILDLIFE OBS	ERVED OF	ROTHER NOTES AND OBSER	RVATIONS
Mallard Pair an	d minnow	s within stream o	channel observed.			
Ī						

Stream ID RD_S_004 Date 05/18/2021



STREAM ID		05	STREAM NA	ME UNT of	f West Neck Creek	
CLIENT Don	minion		PROJECT N	AME Domin		
LAT 36.7700		ONG -76.04712			COUNTY Virginia Bea	ach
INVESTIGATO	ORS R. D	elahunty			DATE 05/19/2021	
WATER TYPE TNW	E RPW	NRPW 🗸	FLOW REG Perennial	IME Intermit	ttent Ephemeral 🗸]
		Estimate Mea	surements	r	Sinuosity ✓ Low	Medium High
		Top of Bank W Top of Bank H	Vidth: 6.0 ft leight: RB 2.0 in	ft	Gradient ✓ Flat M	oderate Severe (10 ft/100 ft) Heavy
CHANNEL FE	ATURES		Water Mark (Width):	40 ft	<u>√</u> Yes N	
		, ,	, ,		Within Roadside Ditch	
		, ,	Water Mark (Height)	: <u>0.0</u> In	Yes✓ N	0
		Flow Direction		-	Culvert Present Yes .	
					Culvert Material:	
					Culvert Size: in	
FLOW CHARACTER	ISTICS	Water Presen ✓ No water, st — Stream bed — Standing w — Flowing wat Velocity	tream bed dry moist rater		Proportion of Reach Represe Morphology Types (Only ent Riffle % Run 1 %) Pool % Turbidity Clear ✓ Slightly	ter if water present) 00 %
		Fast	Moderate		Other	
		Slow				
					000 AND 00000 ATE 000	
INOR	_	UBSTRATE COM Id add up to 100	-		ORGANIC SUBSTRATE COI	ıp to 100%)
Substrate Type	(shou		-		(does not necessarily add u	ıp to 100%)
Substrate Type Bedrock	(shou	ld add up to 100 meter	% Composition in	Substrate	Characteristic sticks, wood, coarse	% Composition in Sampling Area
Substrate Type Bedrock Boulder	(should be be be be be be be be be be be be be	neter 56 mm (10")	% Composition in	Substrate Type	characteristic sticks, wood, coarse plant materials (CPOM)	% Composition in Sampling Area
Substrate Type Bedrock Boulder Cobble	Shou Dia > 29 64-256	meter 56 mm (10") 6 mm (2.5"-10")	% Composition in	Substrate Type	characteristic Sticks, wood, coarse plant materials (CPOM) black, very fine organic	% Composition in Sampling Area
Substrate Type Bedrock Boulder Cobble Gravel	Shou Dia > 29 64-256 2-64 r	meter 56 mm (10") mm (2.5"-10") mm (0.1"-2.5")	% Composition in	Substrate Type Detritus	Characteristic sticks, wood, coarse plant materials (CPOM)	% Composition in Sampling Area
Substrate Type Bedrock Boulder Cobble Gravel Sand	Should Dia	meter 56 mm (10") 6 mm (2.5"-10") 7 mm (0.1"-2.5") 7 -2mm (gritty)	% Composition in Sampling Reach	Substrate Type Detritus Muck-Mud	characteristic Sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM)	% Composition in Sampling Area
Substrate Type Bedrock Boulder Cobble Gravel Sand Silt	Should Dia	meter 56 mm (10") mm (2.5"-10") mm (0.1"-2.5")	% Composition in	Substrate Type Detritus	characteristic Sticks, wood, coarse plant materials (CPOM) black, very fine organic	% Composition in Sampling Area
Substrate Type Bedrock Boulder Cobble Gravel Sand	Should Dia	meter 56 mm (10") 6 mm (2.5"-10") 7 mm (0.1"-2.5") 7 -2mm (gritty) 7 4-0.06 mm 7 4 mm (slick)	% Composition in Sampling Reach 40 60 Surrounding Landu — Commercia ure — Industrial al — Residential — Other:	Substrate Type Detritus Muck-Mud Marl	characteristic Sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM)	% Composition in Sampling Area
Substrate Type Bedrock Boulder Cobble Gravel Sand Silt Clay	Should Dia	Manage	% Composition in Sampling Reach 40 60 Surrounding Landu — Commerciaure — Industrial — Residential — Other:	Substrate Type Detritus Muck-Mud Marl	closes not necessarily add use Characteristic sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM) grey, shell fragments Floodplain Width Wide > 30ft Moder	% Composition in Sampling Area
Substrate Type Bedrock Boulder Cobble Gravel Sand Silt Clay WATERSHED FEATURES	Shoul Dia	dadd up to 100	% Composition in Sampling Reach 40 60 Surrounding Landu — Commerciaure — Industrial — Residential — Other: ✓ Partly shade	Substrate Type Detritus Muck-Mud Marl	closes not necessarily add use Characteristic sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM) grey, shell fragments Floodplain Width Wide > 30ft Moder Narrow <15ft	yp to 100%) % Composition in Sampling Area 100 rate 15-30ft
Substrate Type Bedrock Boulder Cobble Gravel Sand Silt Clay WATERSHED FEATURES	Shoul Dia	dadd up to 100	We Composition in Sampling Reach 40 60 Surrounding Landum————————————————————————————————————	Substrate Type Detritus Muck-Mud Marl	closes not necessarily add use Characteristic sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM) grey, shell fragments Floodplain Width Wide > 30ft Moder	% Composition in Sampling Area 100 rate 15-30ft
Substrate Type Bedrock Boulder Cobble Gravel Sand Silt Clay WATERSHED FEATURES	Shoul Dia	meter 56 mm (10") 56 mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) 04-0.06 mm 04 mm (slick) Predominant Forest Field/Pastt Agricultura ROW Canopy Cove Open Shaded	We Composition in Sampling Reach 40 60 Surrounding Landum————————————————————————————————————	Substrate Type Detritus Muck-Mud Marl	closes not necessarily add use Characteristic sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM) grey, shell fragments Floodplain Width Wide > 30ft Moder Narrow <15ft	yp to 100%) % Composition in Sampling Area 100

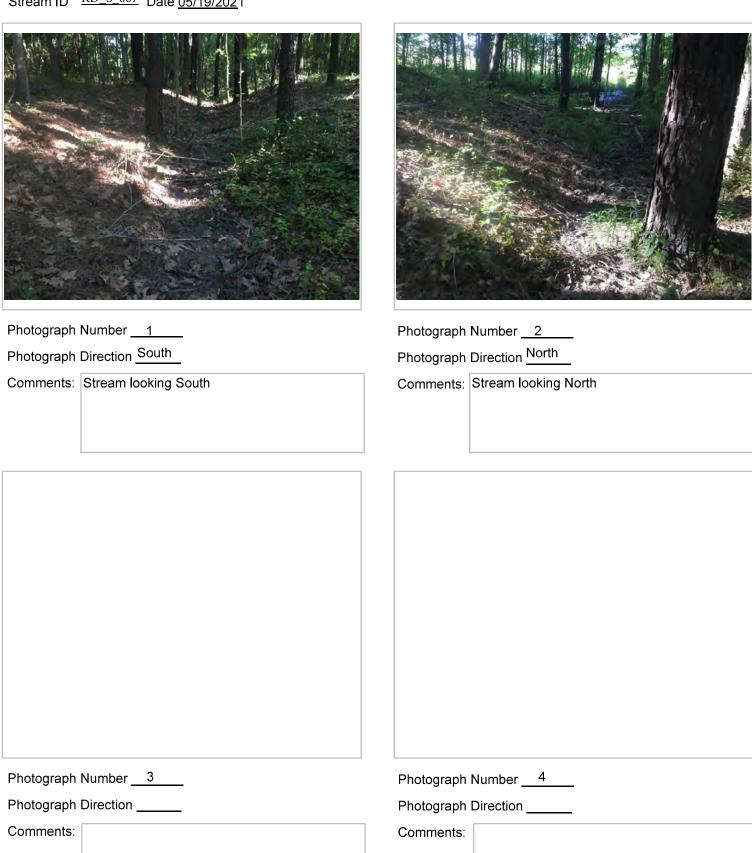
STREAM ID	RD S 006		STREAM NA	ME N/A		
CLIENT Dom		<u>'</u>	PROJECT NA		nion CVOW	3
		ong -76.06318			COUNTY Virginia Bea	ch
INVESTIGATO			7 1 51711-		DATE 05/19/2021	
WATER TYPE			FLOW REGI	IME	1	
TNW	RPW	NRPW 🗸	Perennial	Intermi	ittent Ephemeral 🗸	
			Vidth: <u>3.0</u> ft		Sinuosity ✓ Low Mo	_ •
l		Top of Bank H	•		(0.5/100 ft) (2 ft/	
			RB 1.0 f	^{řt}	Stream Erosion Moderate	Церм
		Water Depth:			✓ None Moderate	-
CHANNEL FE	ATURES	Water Width:_			Artificial, Modified or Chann Yes No	
			Water Mark (Width):		_	
			Water Mark (Height):	: <u>6.0</u> in	Within Roadside Ditch Yes No	
l		Flow Direction	Northeast	2	Culvert Present Yes	
					Culvert Material:	
1		1			~	-
		Water Presen	.4	-	Culvert Size:in Proportion of Reach Repres	antad by Stream
1		water Presen ✓ No water, st			Morphology Types (Only ente	
l		Stream bed	l moist		Riffle % Run	%
FLOW		Standing w	ater		Pool %	
CHARACTER	CHARACTERISTICS — Flowing water		ier		Turbidity	
		Velocity			Clear Slightly to	ırbid Turbid
1		Fast	Moderate		Other	
		Slow				
L		UBSTRATE COM Id add up to 100)%) 100		ORGANIC SUBSTRATE COM (does not necessarily add u	p to 100%)
Substrate Type	Dia	meter	% Composition in Sampling Reach	Substrat Type	Characteristic	% Composition in Sampling Area
Bedrock				Detritus	sticks, wood, coarse	
Boulder	> 25	56 mm (10")		Demius	plant materials (CPOM)	100
Cobble		6 mm (2.5"-10")		Muck-Muc	black, very fine organic	
Gravel		mm (0.1"-2.5")			(FPOM)	
Sand		-2mm (gritty)	40		I II for our out o	
Silt		04-0.06 mm	40 60	Marl	grey, shell fragments	
Clay	< 0.00	04 mm (slick)	Surrounding Landu		Floodplain Width	
1		Forest	Commercia		Wide > 30ft Modera	ate 15-30ft
		Field/Past	ure Industrial		Narrow <15ft	
 Watershed		Agricultura				
FEATURES		ROW	Other:			
		Canopy Cove	r			
		Open	Partly shade	ed		
		<u>√</u> Shaded				
MAC	ROINVER	TEBRATES/OTI	HER WILDLIFE OBS	ERVED OR	OTHER NOTES AND OBSER	RVATIONS
Significant leaf	and pine	needle litter obse	erved within channel.			
i						
i						
i						

Stream ID <u>RD_S_006</u> Date <u>05/19/202</u>1



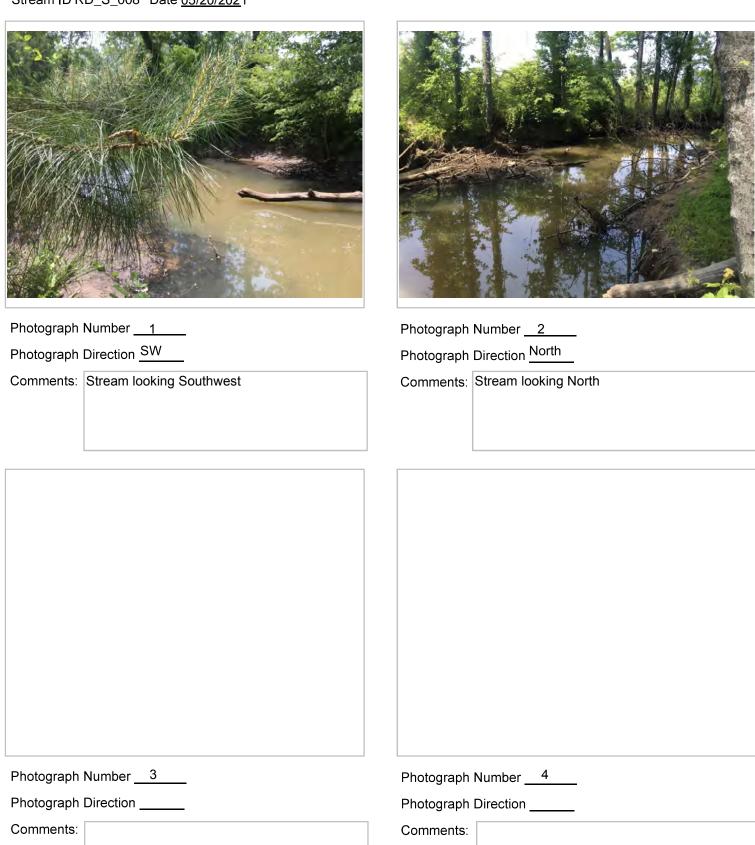
STREAM ID	PD S 007		STREAM NA	ME N/A			
CLIENT Don			STREAM NA PROJECT NA		nion C	\/\(\M\)	
			1 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		111011 0	COUNTY Virginia Bead	ch
INVESTIGATO		ONG -76.06292 elahuntv	O ISIAIE			DATE 05/19/2021	511
WATER TYPE		, and a second	FLOW REGI	IME		IDATE OF TOTAL	
TNW	RPW	NRPW .			ittent	Ephemeral 🗸	
		Estimate Mea	asurements	1	Sinu	osity <u></u> Low N	Medium High
		Top of Bank V	Vidth: <u>9.0</u> ft			-	
		Top of Bank ⊢	leight:		Grau	lient <u>✓</u> Flat Mo (0.5/100 ft) (2 ft/	derate Severe 100 ft) (10 ft/100 ft)
		LB <u>3.0</u> ft	t RB <u>3.0</u> f	ft		am Erosion	
		Water Depth:	in		<u>√</u>	_ None Moderate	Heavy
CHANNEL FE	ATLIDES	Water Width:_	0.0 ft			icial, Modified or Chanr	
CHARRELLE	AIONLO	Ordinary High	Water Mark (Width):	3.0 ft	_✓	Yes No	
		Ordinary High	Water Mark (Height):	: <u>6.0</u> in		in Roadside Ditch	
		Flow Direction	ı: North	.		Yes <u>✓</u> No	
						ert Present Yes 👱	_
						ert Material:	<u>_</u>
						ert Size:in	
		Water Presen				ortion of Reach Represohology Types (Only ente	
		✓ No water, s Stream bed				Run	"r ir water present) %
FLOW		Standing w	vater		Pool	%	
	CHARACTERISTICS — Flowing water				Turb	idity	
		Velocity				Clear Slightly tu	ırbid Turbid
		Fast	Moderate		_ '	Other	
		Slow					
INOR		UBSTRATE COI	0%) 100			ANIC SUBSTRATE COM not necessarily add up	o to 100%)
Substrate Type	Dia	meter	% Composition in Sampling Reach	Substra Type	te	Characteristic	% Composition in Sampling Area
Bedrock		(4.00)		Detritus		sticks, wood, coarse plant materials (CPOM)	
Boulder		56 mm (10")			-	. , ,	75
Cobble Gravel		mm (2.5"-10") nm (0.1"-2.5")		Muck-Mu	d	black, very fine organic (FPOM)	
Sand		-2mm (gritty)				(1.1.5111)	
Silt		94-0.06 mm		Marl		grey, shell fragments	
Clay		04 mm (slick)	100			groy, onen nagmente	
		 	Surrounding Landu	ise		dplain Width	
		✓ Forest	Commercia	ıl		Vide > 30ft Modera	te 15-30ft
		Field/Past Agricultura	ure Industrial		<u> </u>	larrow <15ft	
WATERSHED FEATURES		— Agricultura — ROW	— Cesidential — Other:				
ILATORES							
		Canopy Cove	er Partly shade	ed			
		<u>✓</u> Shaded		-			
		li).					
MAC	ROINVER	TEBRATES/OT	HER WILDLIFE OBS	ERVED OF	ROTHE	ER NOTES AND OBSER	RVATIONS
			erved. Banks were ob				
olgililloant ical	and pine	iccurc inter obse	Jived. Danks were ob	SCIVCU WILII	40 uc	gree stopes.	

Stream ID RD_S_{007} Date 05/19/2021



STREAM ID		3			of West Neck Creek
CLIENT Don			PROJECT N		
LAT 36.7704		ONG -76.04875	9 STATE Virgin	nia	COUNTY Virginia Beach
INVESTIGATO	ors R. D	elahunty			DATE 05/20/2021
TNW	RPW	/ NRPW	FLOW REG Perennial 🗸		nittent Ephemeral
CHANNEL FE	ATURES	Top of Bank H LB <u>2.0</u> ft Water Depth: Water Width: Ordinary High	Vidth:19.0ft leight: RB2.0	18.0ft	Sinuosity ✓ Low Medium High Gradient ✓ Flat Moderate Seve (0.5/100 ft) (2 ft/100 ft) (10 ft/100 ft) Stream Erosion None _✓ Moderate Heavy Artificial, Modified or Channelized Yes ✓ No Within Roadside Ditch Yes ✓ No Culvert Present Yes ✓ No Culvert Material:
FLOW CHARACTER	ISTICS	Water Presen No water, st Stream bed ✓ Standing w Flowing wat Velocity Fast Slow	tream bed dry moist rater ter		Culvert Size:in Proportion of Reach Represented by Stream Morphology Types (Only enter if water present) Riffle % Run % Pool 100 % Turbidity Clear Slightly turbid ✓ Turbid Other
INOR	_	UBSTRATE COM Id add up to 100			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)
Substrate Type	Dia	meter	% Composition in Sampling Reach	Substra Type	Characteristic '
Bedrock				Detritus	sticks, wood, coarse
Boulder		56 mm (10")			plant materials (CPOM) 20
Cobble		6 mm (2.5"-10")		Muck-Mu	black, very fine organic
Gravel		nm (0.1"-2.5")	200		(FPOM)
Sand		-2mm (gritty)	100		
Silt)4-0.06 mm		Marl	grey, shell fragments
Clay WATERSHED FEATURES		✓ Forest	Other:	ıl	Floodplain Width Wide > 30ft Moderate 15-30ft Narrow <15ft
		<u> </u>			
MAG		TERDATES/OTI	HED WILDLIEE OPS	EDVED OF	DOTHED NOTES AND ODSERVATIONS
			ed turtle were observe		e channel.

Stream ID RD_S_008 Date <u>05/20/202</u>1



	RD_S_009	1	STREAM NA	ME West I	Neck C	reek	
CLIENT Don	ninion		PROJECT NA	AME Domi	nion C∖	/OW	
LAT 36.7702		ONG -76.05578		nia		COUNTY Virginia Bea	ch
INVESTIGATO	ors R. De	elahunty				DATE 05/20/2021	
WATER TYPE TNW	RPW v	NRPW	FLOW REGI Perennial		ittent	Ephemeral	
		Estimate Mea	euramante	i	Sinuc	osity <u>√</u> Low l	Medium High
		Top of Bank W Top of Bank H	Vidth: <u>30.0</u> ft	ft	Grad	i ent <u>√</u> Flat M o	
		Water Depth:				None Moderate	Heavy
l		Water Width:_			Artifi	cial, Modified or Chan	nelized
CHANNEL FE	ATURES		Water Mark (Width):	30.0 ft		Yes <u>√</u> No	
					Withi	n Roadside Ditch	
		, ,	Water Mark (Height):	: <u>48.0</u> III		Yes <u>✓</u> No	•
		Flow Direction	: Southeast	- [Culve	ert Present Yes _	/ No
						rt Material:	
						rt Size: in	
EL QUAL		Water Presen No water, st Stream bed Standing water	tream bed dry I moist rater		Propo Morp Riffle	ortion of Reach Representation	er if water present)
FLOW CHARACTER	CHARACTERISTICS Flowing water		ter		Turbi	۵:4,	
		Valacity			Turbi	dity Clear Slightly to	urbid <u>√</u> Turbid
		Velocity — Fast —	Moderate			Other	<u>—</u>
		✓ Slow					
INOR		UBSTRATE CON	-			NIC SUBSTRATE COM	
Substrate	Dia	meter	% Composition in Sampling Reach	Substrat Type	te	Characteristic	% Composition in Sampling Area
Туре		•		i	1		
Bedrock				Detritus		sticks, wood, coarse	
Bedrock Boulder	1	56 mm (10")		Detritus	ŗ	sticks, wood, coarse plant materials (CPOM)	
Bedrock Boulder Cobble	64-256	6 mm (2.5"-10")		Detritus Muck-Muck		plant materials (CPOM)	20
Bedrock Boulder Cobble Gravel	64-256 2-64 n	mm (2.5"-10") mm (0.1"-2.5")				plant materials (CPOM)	20
Bedrock Boulder Cobble Gravel Sand	64-256 2-64 n 0.06-	mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty)	100	Muck-Mud		plant materials (CPOM) plack, very fine organic (FPOM)	20
Bedrock Boulder Cobble Gravel Sand Silt	64-256 2-64 n 0.06- 0.00	mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) 14-0.06 mm	100			plant materials (CPOM)	20
Bedrock Boulder Cobble Gravel Sand	64-256 2-64 n 0.06- 0.00	mm (2.5"-10") nm (0.1"-2.5") -2mm (gritty) 4-0.06 mm 04 mm (slick)		Muck-Mud	d I	plant materials (CPOM) plack, very fine organic (FPOM) grey, shell fragments	20
Bedrock Boulder Cobble Gravel Sand Silt	64-256 2-64 r 0.06- 0.00 < 0.00	mm (2.5"-10") nm (0.1"-2.5") -2mm (gritty) 4-0.06 mm 04 mm (slick) Predominant Forest	Surrounding Landu — Commercia ure — Industrial al — Residential — Other:	Muck-Mud Marl	Flood	plant materials (CPOM) plack, very fine organic (FPOM)	
Bedrock Boulder Cobble Gravel Sand Silt Clay	64-256 2-64 r 0.06- 0.00 < 0.00	mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) 4-0.06 mm 4 mm (slick) Predominant Forest Field/Pastu Agricultura ROW Canopy Cove Open	Surrounding Landu — Commercia ure — Industrial al — Residential — Other:	Muck-Mud Marl	Flood	plant materials (CPOM) plack, very fine organic (FPOM) grey, shell fragments plain Width ide > 30ft Modera	
Bedrock Boulder Cobble Gravel Sand Silt Clay WATERSHED FEATURES	64-256 2-64 n 0.06- 0.00 < 0.00	mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) -4-0.06 mm -4 mm (slick) Predominant Forest Field/Pastt Agricultura ROW Canopy Cove Open Shaded	Surrounding Landu — Commercia ure — Industrial al — Residential — Other: r — Partly shade	Muck-Muck-Muck-Murk	Flood — W — N	plant materials (CPOM) plack, very fine organic (FPOM) grey, shell fragments plain Width ide > 30ft Modera	ate 15-30ft
Bedrock Boulder Cobble Gravel Sand Silt Clay WATERSHED FEATURES	64-256 2-64 n 0.06- 0.00 < 0.00	mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) -4-0.06 mm -4 mm (slick) Predominant Forest Field/Pastt Agricultura ROW Canopy Cove Open Shaded	Surrounding Landu — Commercia ure — Industrial al — Residential — Other: r — Partly shade	Muck-Muck-Muck-Murk	Flood — W — N	plant materials (CPOM) plack, very fine organic (FPOM) grey, shell fragments plain Width ide > 30ft Modera	ate 15-30ft
Bedrock Boulder Cobble Gravel Sand Silt Clay WATERSHED FEATURES	64-256 2-64 n 0.06- 0.00 < 0.00	mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) -4-0.06 mm -4 mm (slick) Predominant Forest Field/Pastt Agricultura ROW Canopy Cove Open Shaded	Surrounding Landu — Commercia ure — Industrial al — Residential — Other: r — Partly shade	Muck-Muck-Muck-Murk	Flood — W — N	plant materials (CPOM) plack, very fine organic (FPOM) grey, shell fragments plain Width ide > 30ft Modera	ate 15-30ft
Bedrock Boulder Cobble Gravel Sand Silt Clay WATERSHED FEATURES	64-256 2-64 n 0.06- 0.00 < 0.00	mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) -4-0.06 mm -4 mm (slick) Predominant Forest Field/Pastt Agricultura ROW Canopy Cove Open Shaded	Surrounding Landu — Commercia ure — Industrial al — Residential — Other: r — Partly shade	Muck-Muck-Muck-Murk	Flood — W — N	plant materials (CPOM) plack, very fine organic (FPOM) grey, shell fragments plain Width ide > 30ft Modera	ate 15-30ft
Bedrock Boulder Cobble Gravel Sand Silt Clay WATERSHED FEATURES	64-256 2-64 n 0.06- 0.00 < 0.00	mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) -4-0.06 mm -4 mm (slick) Predominant Forest Field/Pastt Agricultura ROW Canopy Cove Open Shaded	Surrounding Landu Commercia ure Industrial Residential Other: Partly shade	Muck-Muck-Muck-Murk	Flood — W — N	plant materials (CPOM) plack, very fine organic (FPOM) grey, shell fragments plain Width ide > 30ft Modera	ate 15-30ft

Stream ID RD_S_009 Date <u>05/20/202</u>1



RPW NRPW NRPW NRPW NRPW NRPW NRPW NRPW N	:	IME Interm	Sinuos Gradier Stream N Artificia Y Within Culvert Culvert Culvert Proport Morpho Riffle Pool Turbidi	Ephemeral	derate Severe 100 ft) (10 ft/100 ft) Heavy elized ented by Stream r if water present) %
NRPW NRPW NRPW NRPW NRPW NRPW NRPW NRPW	FLOW REGIPERENTIAL FLOW REGIPERENTS: 10.0 ft tr. RB 3.0 ft ft ft ft ft ft ft ft ft ft ft ft ft	IME Interm	Sinuos Gradier Stream N Artificia Y Within Culvert Culvert Culvert Proport Morpho Riffle Pool Turbidi	Ephemeral	Medium High derate Severe 100 ft) (10 ft/100 ft) Heavy elized No ented by Stream r if water present) %
NRPW	Perennial Perennial Perennial Perennial Perennial Perennial Perennial Perennial Perennial	Interm	Sinuos Gradier Stream N Artificia Y Within Culvert Culvert Proport Morpho Riffle Pool Turbidi	Ephemeral	derate Severe 100 ft) (10 ft/100 ft) Heavy elized No ented by Stream r if water present) %
Estimate Measure Top of Bank Width: Top of Bank Height B 3.0 ft Water Depth: 3.0 Water Width: 5.0 Ordinary High Water Ordinary High Water Ordinary High Water Ordinary High Water Stream bed mois Stream bed mois Standing water Flowing water Velocity Fast Mod	Perennial Perennial Perennial Perennial Perennial Perennial Perennial Perennial Perennial	Interm	Sinuos Gradier Stream N Artificia N Within Culvert Culvert Culvert Proport Morpho Riffle Pool Turbidi	ity Low N nt Flat Moc (2 ft/1) Erosion one Moderate al, Modified or Chann les No Roadside Ditch les No Present Yes Material: Concrete Size: in tion of Reach Represology Types (Only enter % Run 100 %	derate Severe 100 ft) (10 ft/100 ft) Heavy elized No ented by Stream r if water present) %
Fop of Bank Width: Fop of Bank Height B 3.0 ft Water Depth: 3.0 Water Width: 5.0 Ordinary High Water Ordinary High Water Flow Direction: Sou Water Present No water, stream Stream bed mois Standing water Flowing water Velocity Fast Noc Slow	:	ft	Stream Stream N Artificia Y Within Culvert Culvert Culvert Proport Morpho Riffle Pool Turbidi	nt ✓ Flat — Moderate — Moderate — Moderate — Moderate — No Roadside Ditch (es ✓ No Present ✓ Yes — Material: Concrete Size:in tion of Reach Represent — % Run 100 %	derate Severe 100 ft) (10 ft/100 ft) Heavy elized No ented by Stream r if water present) %
_ Fast Mod _ Slow	derate		Cle	ty Slightly tu	
	NENTS		_ Oth	c substrate com	rbid <u>√</u> Turbid
dd up to 100%)	A TOTAL PROPERTY OF			ot necessarily add up	
	Composition in ampling Reach	Substrat Type	te C	haracteristic	% Composition in Sampling Area
		Detritus		ticks, wood, coarse	
mm (10")		Detritus	pla	nt materials (CPOM)	
m (2.5"-10")		Muck Mus	d bla	ick, very fine organic	
(0.1"-2.5")	Muck-Mu	Muck-Muc	u .	(FPOM)	
nm (gritty)	/0			a The second	
).06 mm (30	Mari	g	rey, shell fragments	
mm (slick)	7	No.		4	
_ Forest . ∠ Field/Pasture .	Commercial Industrial Residential Other:		✓ Wid	e > 30ft Moderat	te 15-30ft
(Carrier Carrier o.1"-2.5") in (gritty) in (gritty) in (slick) edominant Surr Forest Field/Pasture Agricultural ROW in (slick) in (slick) edominant Surr Forest Forest Field/Pasture Agricultural ROW in (slick)	in (gritty) in (gritty) in (gritty) in (gritty) in (gritty) in (gritty) in (slick)	Muck-Muck-Muck-Muck-Muck-Muck-Muck-Muck-	Muck-Mud in (gritty) in (gritty) in (gritty) in (slick) in (s	Muck-Mud (FPOM) (gritty) /U (formm 30 Marl grey, shell fragments on (slick) (edominant Surrounding Landuse Forest — Commercial — Moderate Forest — Industrial — Residential ROW — Other: (propy Cover Open — Partly shaded	

Stream ID <u>EF D 002</u> Date <u>05/04/2022</u>



Photograph Number __1___ Photograph Direction East

Comments:



Photograph Number 2 Photograph Direction West

Comments:



Photograph Number 3

Photograph Direction West

Comments: Culvert locate northwest of study area

Photograph Number ___4 Photograph Direction _____

Comments:

T.							
STREAM ID	EF_D_004	_	STREAM NA	STREAM NAME UNK			
CLIENT Dominion				PROJECT NAME Dominion CVOW			
LAT 36.7123	41 <u>L</u> (ONG -76.16816	STATE Penn	STATE Pennsylvania COUNTY Chesapeake			
INVESTIGATORS E. Foster DATE 05/04/2022							
WATER TYPE TNW RPW NRPW Perennial Intermittent Fhank Ephemeral							
		Estimate Measurements			Sinuosity 🗸 Low Medium High		
		Top of Bank Width: <u>4.0</u> ft Top of Bank Height:			Gradient <u>✓</u> Flat Moderate Severe (0.5/100 ft) (2 ft/100 ft) (10 ft/100 ft)		
		LB <u>1.5</u> ft RB <u>1.5</u> ft			Stream Erosion		
		Water Depth: 4.00 in			None Moderate Heavy		
CHANNEL FEATURES		Water Width: 2.0 ft			Artificial, Modified or Channelized		
		Ordinary High Water Mark (Width): 2.5 ft					
		Ordinary High Water Mark (Height): 7.0 in			Within Roadside Ditch		
		Flow Direction: North			Yes✓ No		
					Culvert Present Yes ✓ No		
					Culvert Material:		
					Culvert Size:in		
FLOW		Water Present No water, stream bed dry			Proportion of Reach Represented by Stream Morphology Types (Only enter if water present) Riffle % Run 100 %		
		Stream bed moist					
		Standing water			Pool %		
CHARACTER	ISTICS	✓ Flowing water			Turbidity Clear Slightly turbid Turbid		
		Velocity					
		Fast Moderate			Other		
Slow							
INORGANIC SUBSTRATE COMPOR (should add up to 100%))%) 100	ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)			
Substrate Type	Diameter		% Composition in Sampling Reach	Substrat Type	Characteristic	% Composition in Sampling Area	
Bedrock				Detritus	sticks, wood, coa		
Boulder		56 mm (10")			plant materials (CF		
Cobble		mm (0.1" 2.5")		Muck-Mu	black, very fine org (FPOM)	ganic	
Gravel Sand		nm (0.1"-2.5") -2mm (gritty)	/ U		(1.1.5.1.7)		
Silt		04-0.06 mm	30	Marl	grey, shell fragments	ents	
Clay	†	04 mm (slick)	50				
Predominant Forest			Surrounding Landu Commercia Industrial		Floodplain Width Wide > 30ft Moderate 15-30ft Narrow <15ft		
WATERSHED		∡ Agricultural — Residential					
FEATURES		ROW Other:					
		Canopy Cover ✓ Open Shaded Partly shaded					
<u> </u>							
MACROINVERTERRATES/OTHER WILDLIFE ORSERVER OR OTHER MOTES AND ORSERVATIONS							
MACROINVERTEBRATES/OTHER WILDLIFE OBSERVED OR OTHER NOTES AND OBSERVATIONS							
Flows into EF_D_002							

Photograph Page

Stream ID <u>EF D 00</u>4 Date <u>05/04/202</u>2



STREAM ID EF_D_013			STREAM NA	STREAM NAME UNT to Pocaty River					
CLIENT DO	minion		PROJECT NA	AME Domini	ion CVO	W			
LAT 36.7009	68 L	ONG -76.16987				OUNTY Chesapeake			
INVESTIGATO	ORS E. Fo	ster			D	ATE 05/04/2022			
WATER TYPE	RPW	/ NRPW	FLOW REGI Perennial	IME Intermitt	tent 🗸	Ephemeral			
CHANNEL FE		Top of Bank F LB3.0ff Water Depth: Water Width: Ordinary High Ordinary High Flow Direction Water Preser No water, s Stream bec Standing water Flowing water Velocity Fast	Width:15.0ft Height: t		Stream No Artificia Y Within F Y Culvert Culvert Culvert Froporti Morphol Riffle Pool Turbidit Clea	Anne Moderate No Roadside Ditch es No Present Yes Material: Size: in on of Reach Represogy Types (Only enter % Run 100 %	derate Severe (100 ft) (10 ft/100 ft) Heavy elized No ented by Stream if water present) %		
INOR		✓ Slow UBSTRATE CO	A STATE OF THE STA			SUBSTRATE COM			
Substrate Type	Dia	meter	% Composition in Sampling Reach	Substrate Type	Ch	naracteristic	% Composition in Sampling Area		
Bedrock): E			Dotritus	sti	cks, wood, coarse			
Boulder	> 25	56 mm (10")		Detritus	plar	nt materials (CPOM)			
Cobble	64-256	6 mm (2.5"-10")		Music Musi	blad	ck, very fine organic			
Gravel	2-64 r	mm (0.1"-2.5")		Muck-Mud	1 50	(FPOM)			
Sand	0.06	-2mm (gritty)	/0	1					
Silt		4-0.06 mm	30	Mari	gre	grey, shell fragments			
Clay	< 0.00	04 mm (slick)							
WATERSHED FEATURES		Predominant — Forest ✓ Field/Past ✓ Agricultura — ROW Canopy Cove — Open — Shaded	Residential Other:	-	✓ Wide	nin Width > 30ft Moderate > 415ft	te 15-30ft		
		192042							
MAG	DOINVED	TERRATES/OT	HER WILDLIFE OBS	EDVED OR	OTHER	NOTES AND OBSER	VATIONS		
mac	KOMVEK	TEBRATES/61	HER WEDEN E GBO	ERVED ON	OTTLER	TOTES AND OBSERV	VANORO		

Photograph Page

Stream ID <u>EF-D-0I3</u> Date <u>05/04/2022</u>



ATTACHMENT U-5: WETLAND DETERMINATION DATA FORMS AND PHOTO LOG

May 2022 Page U-5-1

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Dominion CVOV	V			City/County: Virg	inia Beach/	Chesapeake	Sampling Date:	4/28/2021
Applicant/Owner: Dominion						State: VA	Sampling Point: _	EF W 001 PEM
Investigator(s): Emily Foster,	Debbie F	Painter		Section, Townshi	p, Range:			
Landform (hillslope, terrace, et								
Subregion (LRR or MLRA): M								
Soil Map Unit Name: Dorovan-B								<u>*******</u>
Are climatic / hydrologic condit	ions on th	he site typi	ical for this time of y	ear? Yesx	No	(If no, explain in F	Remarks.)	
Are Vegetationx, Soil								No
Are Vegetation, Soil		-				explain any answe		
SUMMARY OF FINDING								atures. etc.
			_x No			,	, p = 1 a	
Hydrophytic Vegetation Present?	SIIL?		x No	is the san	npled Area			
Wetland Hydrology Present?			× No	Within a V	Vetland?	Yesx	No	
Remarks:				·			Observed Classifi	ications:
HYDROLOGY								
Wetland Hydrology Indicate	ors:					Secondary Indica	ators (minimum of tw	vo required)
Primary Indicators (minimum	of one is	required;	check all that apply))		Surface Soil		
x Surface Water (A1)		_	_ Aquatic Fauna (B				getated Concave Si	urface (B8)
High Water Table (A2)		_	_ Marl Deposits (B1			Drainage Pa		
X Saturation (A3)		_	Hydrogen Sulfide		Danta (C2)	Moss Trim L		
Water Marks (B1)Sediment Deposits (B2)		_	Presence of Redu	heres along Living	Roots (C3)	Dry-Season Crayfish Bur	Water Table (C2)	
Sediment Deposits (B2) Drift Deposits (B3)		_		ction in Tilled Soils	(C6)		isible on Aerial Imag	nery (C9)
Algal Mat or Crust (B4)			Thin Muck Surface		(00)		Position (D2)	gery (CS)
Iron Deposits (B5)		_	Other (Explain in I			Shallow Aqu	, ,	
Inundation Visible on Ae	rial Image	ery (B7)		,		x FAC-Neutral	, ,	
Water-Stained Leaves (E	39)					Sphagnum r	noss (D8) (LRR T, I	J)
Field Observations:								
Surface Water Present?	Yes _	x No _	Depth (inches	s): <u>0-4</u>				
Water Table Present?	Yes _	No _	Depth (inches	s): <u>0</u>				
Saturation Present? (includes capillary fringe)			Depth (inches		Wetland	Hydrology Preser	nt? Yesx	No
Describe Recorded Data (str	eam gau	ge, monito	ring well, aerial phot	tos, previous inspe	ctions), if av	ailable:		
Remarks:								
Inundated portion of existi	ng nowe	rline ease	ement.					
Interred por tion or existi	8 powe	Time case	ciic.					
								[
								H

_	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft)	% Cover	Species?	<u>Status</u>	Number of Dominant Species
1				That Are OBL, FACW, or FAC:2 (A)
2				Total Number of Dominant
3				Species Across All Strata: 2 (B)
4.				
				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:(A/B)
6				Prevalence Index worksheet:
		= Total Co		Total % Cover of: Multiply by:
50% of total cover: 0	20% o	f total cove	r:0	OBL species95 x 1 =95
Sapling Stratum (Plot size: 30 ft)				FACW species 5 x 2 = 10
1				
2				FAC species x 3 = 30
3				FACU species 0 x 4 = 0
4				UPL species0 x 5 =0
5.				Column Totals:110 (A)135 (B)
				4.22
6				Prevalence Index = B/A =1.23
500/ 51/1 O		= Total Co		Hydrophytic Vegetation Indicators:
50% of total cover: 0	20% o	total cove	r:0	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft)				X 2 - Dominance Test is >50%
1				X 3 - Prevalence Index is ≤3.01
2				Problematic Hydrophytic Vegetation¹ (Explain)
3				
4				¹ Indicators of hydric soil and wetland hydrology must
5.				be present, unless disturbed or problematic.
				Definitions of Five Vegetation Strata:
6				Bonnations of the vogetation offata.
500/ 5///		= Total Co		Tree - Woody plants, excluding woody vines,
50% of total cover: 0	20% o	f total cove	r:0	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: 30 ft)				(7.6 cm) of larger in diameter at breast neight (DBH).
1. Typha latifolia, Broad-Leaf Cat-Tail	75	Yes	OBL	Sapling – Woody plants, excluding woody vines,
2. Saururus cernuus, Lizard's-Tail	10	<u>No</u>	OBL	approximately 20 ft (6 m) or more in height and less
3. Carex vulpinoidea, Common Fox Sedge	5	No	_FACW_	than 3 in. (7.6 cm) DBH.
4. Juncus effusus, Lamp Rush	5	No	OBL	Shrub - Woody plants, excluding woody vines,
5. Sagittaria latifolia, Duck-Potato	_			approximately 3 to 20 ft (1 to 6 m) in height.
6. Solidago sp.			ND	Herb – All herbaceous (non-woody) plants, including
-				herbaceous vines, regardless of size, and woody
7				plants, except woody vines, less than approximately
8				3 ft (1 m) in height.
9				Woody vine - All woody vines, regardless of height.
10				Trooting the control of the contro
11				
	105	= Total Co	ver	
50% of total cover:52.5	20% o	f total cove	r: <u>21</u>	
Woody Vine Stratum (Plot size: 30 ft)				
Rubus pensilvanicus, Pennsylvania Blackberry	10	Yes	FΔC	
2.				
3				
4				
5				Hydrophytic
	10	= Total Co	ver	Vegetation
50% of total cover:5	20% o	f total cove	r: <u>2</u>	Present?
Remarks: (If observed, list morphological adaptations belo	w).			1
, , , , , , , , , , , , , , , , , , , ,	,			

Sampling Point: EF W 001 PEM

SOIL Sampling Point: EF W 001 PEM

Profile Desc	ription: (Describe	to the depth	needed to docum	nent the i	ndicator	or confirm	the absence	of indicators.)
Depth (inches)	Matrix Color (moist)	 _		K Feature	SType ¹	Loc ²	Texture	Pamarke
(inches) 0-6		100%	Color (moist)	%	Type	LUC		No H2S oder ten lavor of muck
	10yr 3/1						Silty clay loam	No H2S odor, top layer of muck
6-12	7.5yr 4/4	100%					Loamy sand	Metallic odor
12-18	7.5yr 4/4						Loamy sand	
¹ Type: C=Co	oncentration, D=Dep	letion, RM=F	Reduced Matrix, MS	=Masked	Sand Gra	ains.		PL=Pore Lining, M=Matrix.
Hydric Soil	ndicators: (Applic	able to all L	RRs, unless other	wise not	ed.)		Indicators	for Problematic Hydric Soils ³ :
Histosol	' '		Polyvalue Be					luck (A9) (LRR O)
	oipedon (A2) stic (A3)		Thin Dark Su Loamy Mucky	, ,				luck (A10) (LRR S) ed Vertic (F18) (outside MLRA 150A,B)
	n Sulfide (A4)		Loamy Gleye			0,		ont Floodplain Soils (F19) (LRR P, S, T)
Stratified	Layers (A5)		Depleted Mat				Anoma	lous Bright Loamy Soils (F20)
	Bodies (A6) (LRR P		Redox Dark S	,	,		•	RA 153B)
	icky Mineral (A7) (LF		Depleted Dar		, ,			arent Material (TF2)
	esence (A8) (LRR U ck (A9) (LRR P, T))	Redox Depre Marl (F10) (L	•	0)			hallow Dark Surface (TF12) Explain in Remarks)
	Below Dark Surfac	e (A11)	Depleted Och	,	(MLRA 15	51)		
	ark Surface (A12)		Iron-Mangane					ators of hydrophytic vegetation and
	rairie Redox (A16) (N lucky Mineral (S1) (I		Umbric Surfa _ Delta Ochric			(U)		and hydrology must be present, ess disturbed or problematic.
	iucky Millerai (ST) (1 Gleyed Matrix (S4)	-KK (), (3)	Reduced Ver			0A. 150B)		ess disturbed of problematic.
	ledox (S5)		Piedmont Flo					
	Matrix (S6)		Anomalous B	right Loar	my Soils (F	20) (MLR	A 149A, 153C,	153D)
	rface (S7) (LRR P, S							
	Layer (if observed):							
	ches):		_				Hydric Soil	Present? Yes ^x No
Remarks:	<u> </u>						nyunc son	Present? resNO
	oils from heavy equ	uinment acc	ess to nowerline	easemen	t			
Distarbea 5	ons from fieuvy equ	aipinicini acc	ess to powernite t	casemen				

Date: 4/28/21

Feature Name: EF_W_001_PEM



Photograph Number ___

Photograph Direction South

Comments: View of PEM wetland to the South.



Photograph Number ____

Photograph Direction North

Comments: View of PEM wetland to the North.



Photograph Number _____

Photograph Direction East

Comments:

View of PEM wetland to the East.



Photograph Number _____

Photograph Direction West

Comments: View of PEM wetland to the West.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Dominion CVOW	City/County: Virginia Beach/Chesar	peake Sampling Date: 4/28/2021
Applicant/Owner: Dominion	State:	VA Sampling Point: EF_W_001_PFO
Investigator(s): Emily Foster, Debbie Painter	Section, Township, Range:	
Landform (hillslope, terrace, etc.): Flatwoods		
Subregion (LRR or MLRA): MLRA 153B of LRR T Lat:		
	N	
Are climatic / hydrologic conditions on the site typical for this time of		
Are Vegetation, Soil, or Hydrology significant		
Are Vegetation, Soil, or Hydrology naturally partially summary OF FINDINGS – Attach site map showing		any answers in Remarks.) ransects, important features, etc.
Hydrophytic Vegetation Present? Yesx No	is the Sambled Area	
Hydric Soil Present? Yesx No	within a Wetland?	Yesx No
Wetland Hydrology Present? Yesx No	-	
Remarks: Forested wetland located on E side of powerline easement, ar	d continuing outside of the survey a	Observed Classifications: area. Cowardin: PFO
	,	cowardin. 110
HYDROLOGY		
Wetland Hydrology Indicators:	Seco	ndary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply		surface Soil Cracks (B6)
x Surface Water (A1) Aquatic Fauna (B		parsely Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B) Marl Deposits (B)		Prainage Patterns (B10)
x Saturation (A3) x Hydrogen Sulfide		floss Trim Lines (B16)
		Ory-Season Water Table (C2)
Sediment Deposits (B2) Presence of Red		Crayfish Burrows (C8)
		saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface		Seomorphic Position (D2)
Iron Deposits (B5) Other (Explain in	Remarks)S	hallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)		AC-Neutral Test (D5)
Water-Stained Leaves (B9)		phagnum moss (D8) (LRR T, U)
Field Observations:		
Surface Water Present? Yesx No Depth (inche	es): <u>0-4</u>	
Water Table Present? Yesx No Depth (inche	es): <u>0</u>	
Saturation Present? Yesx No Depth (inche	es): 0 Wetland Hydrol	ogy Present? Yesx No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial pho	Assessment in the second secon	
Describe Recorded Data (stream gauge, monitoring well, aeriai pric	nos, previous irispections), ii available.	
Remarks:		
Nemarks.		
İ		1

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
<u>Tree Stratum</u> (Plot size: <u>30 ft</u>)		Species?		Number of Dominant Species	
1. Acer rubrum, Red Maple	20	<u>Yes</u>	<u>FAC</u>	That Are OBL, FACW, or FAC:6 (A	()
2. Fraxinus pennsylvanica, Green Ash	15	<u>Yes</u>	<u>FACW</u>	Total Number of Dominant	
3. <u>Ulmus americana, American Elm</u>	10	<u>No</u>	FAC	Species Across All Strata:6 (B	3)
4. <u>Liquidambar styraciflua, Sweet-Gum</u>	10	No	FAC		
5. <u>Taxodium distichum, Southern Bald-Cypress</u>	5	No	OBL	Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A	/B)
6					
	60	= Total Cov	er	Prevalence Index worksheet:	
50% of total cover: 30	20% of	total cover:	12	Total % Cover of: Multiply by:	
Sapling Stratum (Plot size: 30 ft)	_			OBL species30 x 1 =30	
1. Ulmus americana, American Elm	5	Yes	FAC	FACW species25 x 2 =50	
Liquidambar styraciflua, Sweet-Gum		Yes		FAC species55 x 3 =165	
3. Acer rubrum, Red Maple				FACU species0 x 4 =0	
			FAC	UPL species0 x 5 =0	
4				Column Totals:110 (A)245 (B)
5					
6				Prevalence Index = B/A =2.23	
		= Total Cov		Hydrophytic Vegetation Indicators:	
50% of total cover:7.5	20% of	total cover:	3	1 - Rapid Test for Hydrophytic Vegetation	
Shrub Stratum (Plot size: 30 ft)				X 2 - Dominance Test is >50%	
1				x 3 - Prevalence Index is ≤3.01	
2				Problematic Hydrophytic Vegetation¹ (Explain)	
3					
4				¹ Indicators of hydric soil and wetland hydrology mus	it
5				be present, unless disturbed or problematic.	•
6.				Definitions of Five Vegetation Strata:	
		= Total Cov	er		
50% of total cover:0				Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.	
Herb Stratum (Plot size: 30 ft)	20 70 01	10101 00101		(7.6 cm) or larger in diameter at breast height (DBH)	
Glyceria septentrionalis, Floating Manna Grass	25	Vas	OBL	3 -1	
				Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less	
Osmundastrum cinnamomeum, Cinnamon Fern Arundinaria gigantae, Ciant Cana				than 3 in. (7.6 cm) DBH.	
3. Arundinaria gigantea, Giant Cane			FACW	Charle 18/and a planta avaluation avanda a fina	
4				Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.	
5					
6				Herb – All herbaceous (non-woody) plants, including	g
7				herbaceous vines, regardless of size, <u>and</u> woody plants, except woody vines, less than approximately	,
8				3 ft (1 m) in height.	
9				Woody vine – All woody vines, regardless of height	
10				woody wife - All woody villes, regardless of freight	
11					
	35	= Total Cov	er		
50% of total cover:17.5	20% of	total cover:	7		
Woody Vine Stratum (Plot size: 30 ft)	_				
1					
2					
3					
4					
5				Hydrophytic	
		= Total Cov		Vegetation Present? Yes _ × No	
50% of total cover: 0		total cover:	0		
Remarks: (If observed, list morphological adaptations below	w).				

Sampling Point: EF W 001 PFO

SOIL Sampling Point: <u>EF_W_001_P</u>FO

Profile Des	cription: (Describe	to the depth				or confirm	the absence of in	ndicators.)
Depth (inches)	Matrix Color (moist)	——— —	Redo Color (moist)	x Feature: %	S Type ¹	_Loc ²	Texture	Remarks
0-6	10yr 2/1	100%			.,,,,		Muck	
6-18	10yr 2/1	100%					Loamy sand	
	101. 2/1							
	Concentration, D=Dep					ains.		Pore Lining, M=Matrix.
-	Indicators: (Applic	able to all Li				DD C T 11		Problematic Hydric Soils ³ :
Histoso	pipedon (A2)		Polyvalue Be					(A10) (LRR S)
_	listic (A3)		Loamy Muck	, ,				ertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)		Loamy Gleye	ed Matrix (F2)		Piedmont F	loodplain Soils (F19) (LRR P, S, T)
ı —	d Layers (A5)	-	Depleted Ma		-0)			Bright Loamy Soils (F20)
	: Bodies (A6) (LRR P ucky Mineral (A7) (Ll		Redox Dark Depleted Da	,	,		(MLRA 1	S3B) Material (TF2)
	resence (A8) (LRR U		Redox Depre		, ,			w Dark Surface (TF12)
ı —	uck (A9) (LRR P, T)	,	Marl (F10) (I		-,			ain in Remarks)
ı — ·	d Below Dark Surfac	e (A11)	Depleted Oc	` '	•	,	2	
_	ark Surface (A12)	#LDA 450A\	Iron-Mangan					of hydrophytic vegetation and
	Prairie Redox (A16) (I Mucky Mineral (S1) (I		Umbric Surfa Delta Ochric			, 0)		hydrology must be present, listurbed or problematic.
ı —	Gleyed Matrix (S4)	0, 0,	Reduced Ve	. , .		0A, 150B)	4,,,,,,,	instance of proceedings.
Sandy I	Redox (S5)		Piedmont Flo					
ı —	d Matrix (S6)		Anomalous I	Bright Loar	my Soils (I	F20) (MLR	A 149A, 153C, 153	D)
	urface (S7) (LRR P, S Layer (if observed):							
	Layer (II observeu).							
	nches):						Hydric Soil Pres	sent? Yes ^x No
Remarks:			_					

Date: 4/28/21

Feature Name: EF_W_001_PFO



Photograph Number ___

Photograph Direction East

Comments: View of PFO wetland to the East.



Photograph Number ___

Photograph Direction North

Comments: View of PFO wetland to the North.



Photograph Number _____

Photograph Direction West

Comments:

View of PFO wetland to the West.



Photograph Number _____

Photograph Direction South

Comments: View of PFO wetland to the South.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Dominion CVOW	City/County: Chesapeake	Sampling Date: 4/28/2021
Applicant/Owner: Dominion	State: VA	Sampling Point: EF W 001 UP
Investigator(s): Emily Foster, Debbie Painter	Section, Township, Range:	
Landform (hillslope, terrace, etc.): Flat		
Subregion (LRR or MLRA): MLRA 153B of LRR T Lat:		
	NWI classifi	
Are climatic / hydrologic conditions on the site typical for this time of y		
Are Vegetation, Soil, or Hydrology significantl		
Are Vegetation, Soil, or Hydrology naturally p		
		•
SUMMARY OF FINDINGS – Attach site map showin	g sampling point locations, transects	s, important features, etc.
Hydrophytic Vegetation Present? Yes Nox	le the Sempled Area	
Hydric Soil Present? Yes No×	is the Sampled Area	N. Y
Wetland Hydrology Present? Yes Nox	within a Wetland? Yes	Nox
Remarks:		Observed Classifications:
		Cowardin: <u>Upland</u>
HYDROLOGY		
Wetland Hydrology Indicators:	Secondary Indic	eators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply) Surface Soi	l Cracks (B6)
Surface Water (A1) Aquatic Fauna (B	13) Sparsely Ve	egetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B1		atterns (B10)
Saturation (A3) Hydrogen Sulfide	Odor (C1) Moss Trim L	_ines (B16)
Water Marks (B1) Oxidized Rhizosp	heres along Living Roots (C3) Dry-Season	Water Table (C2)
Sediment Deposits (B2) Presence of Redu	uced Iron (C4) Crayfish Bu	rrows (C8)
Drift Deposits (B3) Recent Iron Redu	ction in Tilled Soils (C6) Saturation \	/isible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surfac	e (C7) Geomorphic	Position (D2)
Iron Deposits (B5) Other (Explain in	· — ·	, ,
Inundation Visible on Aerial Imagery (B7)	FAC-Neutra	
Water-Stained Leaves (B9)	Sphagnum	moss (D8) (LRR T, U)
Field Observations:		
Surface Water Present? Yes No _x Depth (inche	l l	
Water Table Present? Yes No _x Depth (inche		
Saturation Present? Yes No _x Depth (inche (includes capillary fringe)	s): Wetland Hydrology Prese	nt? Yes Nox
Describe Recorded Data (stream gauge, monitoring well, aerial pho	tos, previous inspections), if available:	
Remarks:		
II.		

		Dominant		Dominance Test worksheet:
		Species?		Number of Dominant Species
Liriodendron tulipifera, Tuliptree	30	<u>Yes</u>	<u>FACU</u>	That Are OBL, FACW, or FAC: 2 (A)
2. Acer rubrum, Red Maple	25	Yes	FAC	Total Number of Dominant
3. Liquidambar styraciflua, Sweet-Gum	10	<u>No</u>	FAC	Species Across All Strata:8 (B)
4				Barret of Barrier of Country
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 25.0% (A/B)
6				That Ale OBL, FACW, OF FAC (A/B)
·	65	= Total Cov	/er	Prevalence Index worksheet:
500/ oftetal anguary 22.5				Total % Cover of: Multiply by:
50% of total cover: 32.5	20% 01	total cover	13	OBL species0 x 1 =0
Sapling Stratum (Plot size: 30 ft)				FACW species0 x 2 =0
1. Acer rubrum, Red Maple				FAC species <u>45</u> x 3 = <u>135</u>
2. <u>Liriodendron tulipifera, Tuliptree</u>		<u>Yes</u>	<u>FACU</u>	FACU species85 x 4 =340
3. Oxydendrum arboreum, Sourwood	5	Yes	FACU	
4				UPL species x 5 = 0
5				Column Totals:130 (A)475 (B)
6				Prevalence Index = B/A =3.65
		= Total Cov	/er	Hydrophytic Vegetation Indicators:
50% of total cover:12.5	20% of	total cover	. 5	
Shrub Stratum (Plot size: 30 ft)	207001	total sover.		1 - Rapid Test for Hydrophytic Vegetation
				2 - Dominance Test is >50%
1				3 - Prevalence Index is ≤3.0¹
2				Problematic Hydrophytic Vegetation ¹ (Explain)
3				
4				¹ Indicators of hydric soil and wetland hydrology must
5				be present, unless disturbed or problematic.
6				Definitions of Five Vegetation Strata:
	0	= Total Cov	er er	Tree Mediuments evaluding weeds vines
50% of total cover:0	20% of	total cover:	: 0	Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: 30 ft)	_			(7.6 cm) or larger in diameter at breast height (DBH).
1. Lonicera japonica, Japanese Honeysuckle	15	Yes	FΔCII	Carling 18/and and and and and and and and and
0 0 11 1 1 0 0 1 1		Yes		Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
				than 3 in. (7.6 cm) DBH.
3. <u>Parthenocissus quinquefolia, Virginia-Creeper</u>				
4. Podophyllum peltatum, May-Apple		<u>No</u>	FACU	Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
5				approximately 5 to 20 ft (1 to 6 fff) in fleight.
6				Herb – All herbaceous (non-woody) plants, including
7				herbaceous vines, regardless of size, <u>and</u> woody plants, except woody vines, less than approximately
8				3 ft (1 m) in height.
9				
10				Woody vine - All woody vines, regardless of height.
11				
· · ·	40	= Total Cov		
500/ -5t-t-1 20				
50% of total cover: 20	20% of	total cover	88	
Woody Vine Stratum (Plot size: 30 ft)				
1				
2				
3				
4				
5				Hydrophytic
	0	= Total Cov	er	Vegetation
50% of total cover: 0				Present? Yes Nox_
		total cover.		
Remarks: (If observed, list morphological adaptations below	w).			

SOIL Sampling Point: EF W 001 UP

Profile Des	cription: (Describe	to the dept				or confirm	n the absence o	findicato	rs.)	
Depth (inches)	Matrix Color (moist)	%	Color (moist)	<u>x Features</u> %	Type ¹	Loc ²	Texture		Remarks	
0-6	2.5y 2.5/1	100%					Silty loam			
6-12	10yr 4/3		10yr 8/3	20%		PL	Sandy clay loam			
12-18	7.5yr 6/2	100%					Sand			
	•									
1Type: C=C	Concentration, D=Dep	letion DM-	- Peduced Matrix M	- ——— S-Masked	Sand Gra	ine	2l ocation: D	I -Pore Li	ning, M=Matri:	
	Indicators: (Applic								natic Hydric \$	
Black F Hydrog Stratifie Organic 5 cm M Muck P 1 cm M Deplete Thick D Coast F Sandy Sandy Strippe	Epipedon (A2) Ilistic (A3) Ilistic (A3) Ilistic (A3) Ilistic (A4) Ilistic (A5) Ilistic (A5) Ilistic (A5) Ilistic (A6) (LRR P Ilistic (A7) (LFR P Ilistic (A9) (LRR P, T) Ilistic (A9) (LRR P, T) Ilistic (A12) Ilistic (A12) Ilistic (A16) (II Ilistic (A16) (II Ilistic (A16) (II Ilistic (A16) (II Ilistic (A16) (II Ilistic (A16) (II Ilistic (A16) (II Ilistic (A16) (II Ilistic (A16) (II Ilistic (A16) (II Ilistic (A16) (II Ilistic (A16) (II Ilistic (A16) (II Ilistic (A16) (II Ilistic (A16) (II Ilistic (A3) (II Ilistic	RR P, T, U)) e (A11) //LRA 150/A LRR O, S)	Redox Depre Marl (F10) (L Depleted Och Iron-Mangand Umbric Surfa Delta Ochric Reduced Ver Piedmont Flo	urface (S9) y Mineral (ed Matrix (trix (F3) Surface (F rk Surface (F rk Surface essions (F8 RR U) hric (F11) ese Masse ace (F13) ((F17) (ML tric (F18) (podplain S	(LRR S, (F1) (LRR F2) 6) (F7) 8) (MLRA 15 es (F12) (I LRR P, T, RA 151) MLRA 15 oils (F19)	T, U) O) LRR O, P, U) DA, 150B) (MLRA 14	2 cm Mu Reduced Piedmon Anomald (MLRA Red Pare Very Sha Other (E	ck (A10) (I Vertic (F It Floodpla bus Bright (A153B) ent Materi allow Dark xplain in F ors of hyd nd hydrold s disturbe	LRR S) 18) (outside N in Soils (F19) Loamy Soils (I al (TF2) Surface (TF1	2) tation and resent,
	urface (S7) (LRR P, S Layer (if observed):						T			
Туре:	,									
Depth (ir	nches):						Hydric Soil P	resent?	Yes	Nox
Remarks:										

Date: 4/28/21

Feature Name: EF_W_001_UP



Photograph Number ______Photograph Direction South

Comments:



Photograph Number ______Photograph Direction East

Comments:



Photograph Number _____

Photograph Direction North

Comments:



Photograph Number _____

Photograph Direction West

Comments:

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Dominion CVOW	_ City/County: Chesapeak	e	Sampling Date:	4/28/2021
Applicant/Owner: Dominion		State: <u>VA</u>	Sampling Point: EF	W 002 PEM
Investigator(s): Emily Foster, Debbie Painter				
Landform (hillslope, terrace, etc.): Flat				%): 0-5
Subregion (LRR or MLRA): MLRA 153B of LRR T Lat:				
Soil Map Unit Name: Tomotley-Bertie complex, 0 to 2 percent slopes				
Are climatic / hydrologic conditions on the site typical for this time of				
				No
Are Vegetation, Soil, or Hydrology significan	-	ormal Circumstances" p		_ NO
Are Vegetation, Soil, or Hydrology naturally	problematic? (If need	ded, explain any answe	rs in Remarks.)	
SUMMARY OF FINDINGS – Attach site map showing	ng sampling point lo	cations, transects	, important feat	ures, etc.
Hydrophytic Vegetation Present? Yesx No	Is the Sampled A	F0.2		
Hydric Soil Present? Yesx No	within a Wetland		No	
Wetland Hydrology Present? Yesx No	_ within a wetland	r res	NO	
Remarks:			Observed Classifica	tions:
Recently disturbed by heavy equipment in power line easeme	ent. Torn up soil and recen	itly mowed	Cowardin: PEM	
vegetation.			<u> </u>	
HYDROLOGY				
Wetland Hydrology Indicators:		Secondary Indica	tors (minimum of two	required)
Primary Indicators (minimum of one is required; check all that apply	v)	Surface Soil	•	requirear
Surface Water (A1) Aquatic Fauna (I	,,		getated Concave Surf	iaco (B8)
Surface Water (AT) Aquatic Patria (iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii		Sparsery veg		ace (Bo)
I .		Moss Trim Li		
I .	pheres along Living Roots (
Sediment Deposits (B2) — Value Marks (B1) — Oxidized Kritzos — Presence of Red		x Crayfish Buri		
	uction in Tilled Soils (C6)		sible on Aerial Image	n; (C0)
Algal Mat or Crust (B4) Thin Muck Surfa	, ,	Geomorphic	_	19 (09)
Iron Deposits (B5) Other (Explain in	. ,	Shallow Aqui		
Inundation Visible on Aerial Imagery (B7)	r Kemarks)	× FAC-Neutral	, ,	
Water-Stained Leaves (B9)			noss (D8) (LRR T, U)	
Field Observations:		Opinagriamin	1000 (00) (21111 1, 0)	
Surface Water Present? Yes No _x Depth (inche	es).			
Water Table Present? Yes No _x Depth (inche				
Saturation Present? Yes No _x Depth (inches		and Hydrology Presen	it? Yes X N	o
(includes capillary fringe)	CS)	and riyarology r resen	1031	
Describe Recorded Data (stream gauge, monitoring well, aerial ph	otos, previous inspections),	if available:		
Remarks:				
1				Į.

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

EGETATION (Five Strata) – Use scientific na		Dominant	Indicator	Sampling Point: <u>EF_W_00.</u> Dominance Test worksheet:
ree Stratum (Plot size: 30 ft)	% Cover	Species?	Status	Number of Dominant Species
				That Are OBL, FACW, or FAC:2 (A)
				Total Number of Dominant Species Across All Strata: 3 (B)
				Percent of Dominant Species
				That Are OBL, FACW, or FAC: 66.7% (A/B
		= Total Cov		Prevalence Index worksheet:
50% of total cover: 0				Total % Cover of: Multiply by:
pling Stratum (Plot size: 30 ft)	20 70 01	total dover.		OBL species30 x 1 =30
				FACW species0 x 2 =0
				FAC species 0 x 3 = 0
				FACU species 0 x 4 = 0
				UPL species 0 x 5 = 0
				Column Totals:30(A)30(B)
				Prevalence Index = B/A =1.00
		= Total Cov		Hydrophytic Vegetation Indicators:
50% of total cover: 0	20% of	total cover:	0	1 - Rapid Test for Hydrophytic Vegetation
rub Stratum (Plot size: 30 ft)				x 2 - Dominance Test is >50%
				x 3 - Prevalence Index is ≤3.01
				Problematic Hydrophytic Vegetation¹ (Explain)
				¹Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
				Definitions of Five Vegetation Strata:
500/ official course. 0		= Total Cov		Tree – Woody plants, excluding woody vines,
50% of total cover: 0 erb Stratum (Plot size: 30 ft)	ZU% OI	iolai cover:		approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
Solidago sp.	15	Yes	ND	
Juncus effusus, Lamp Rush				Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
Carex Iurida, Shallow Sedge	4.5	Yes		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.
l				Woody vine – All woody vines, regardless of height.
	45	= Total Cov	er	
50% of total cover: <u>22.</u>	5 20% of	total cover:	9	
oody Vine Stratum (Plot size: 30 ft)				
				
				Hydrophytic
		= Total Cov		Vegetation Present? Yes × No
50% of total cover:0			_	

SOIL Sampling Point: EF W 002 PEM

Profile Des	cription: (Describe	to the dep				or confirm	n the absence of inc	licators.)
Depth (inches)	Matrix Color (moist)	%	Color (moist)	ox Features %	Type ¹	Loc ²	Texture	Remarks
0-6	7.5yr 4/3	75%	7.5yr 5/6	25%	C	PL	Clay loam	Nomarks
6-12	10yr 5/2		7.5yr 4/6	25%		PL	Clay loam	
12-18	10yr 4/2	65%	7.5 yr 5/8	35%	C	PL	Clay loam	
¹ Type: C=C	concentration, D=Dep	letion, RM	=Reduced Matrix, M	– ——— IS=Masked	Sand Gra	ains.	² Location: PL=P	Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applic	able to all	LRRs, unless othe	rwise note	ed.)			roblematic Hydric Soils ³ :
Histoso	, ,		Polyvalue B					
	pipedon (A2) listic (A3)		Thin Dark S Loamy Muck	, ,			2 cm Muck (A	A10) (LKK S) rtic (F18) (outside MLRA 150A,B)
_	en Sulfide (A4)		Loamy Gley	-		0,		podplain Soils (F19) (LRR P, S, T)
	d Layers (A5)		× Depleted Ma		,			Bright Loamy Soils (F20)
	Bodies (A6) (LRR P		Redox Dark	,	,		(MLRA 15	•
—	ucky Mineral (A7) (LI				'			Material (TF2)
ı —	resence (A8) (LRR U uck (A9) (LRR P, T)	J)	Redox Depr Marl (F10) (I		3)		Very Shallow _x_ Other (Expla	/ Dark Surface (TF12)
_	d Below Dark Surfac	e (A11)	Depleted Oc		(MLRA 1	51)	Other (Expla	iii iii Keinaiks)
	ark Surface (A12)	()	Iron-Mangar	, ,	•	,	T) ³ Indicators	of hydrophytic vegetation and
ı —	Prairie Redox (A16) (I					, U)		ydrology must be present,
	Mucky Mineral (S1) (I	LRR O, S)	Delta Ochrid			0.8.4508\		sturbed or problematic.
	Gleyed Matrix (S4) Redox (S5)		Reduced Ve Piedmont FI					
_	d Matrix (S6)						RA 149A, 153C, 153E	0)
Dark Su	urface (S7) (LRR P, \$	S, T, U)	_		•			
Restrictive	Layer (if observed):	:						
Туре:								
• •	nches):						Hydric Soil Prese	ent? Yesx No
Remarks:								
Severely di	sturbed soils from I	neavy equ	pment					
1								

Date: 4/28/21

Feature Name: EF_W_002_PEM



Photograph Number _____

Photograph Direction North

Comments: View of PEM wetland to the North.



Photograph Number _____

Photograph Direction South

Comments: $|_{\mbox{View of PEM wetland to the South.}}$



Photograph Number _____

Photograph Direction West

Comments:

View of PEM wetland to the West.



Photograph Number _____

Photograph Direction East

Comments: View of PEM wetland to the East.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Dominion CVOW	City/County: Virginia Beach/Chesapeake	Sampling Date: 4/28/2021				
Applicant/Owner: Dominion	State: VA	Sampling Point: EF W 002 UP				
Investigator(s): Emily Foster, Debbie Painter	Section, Township, Range:					
Landform (hillslope, terrace, etc.): Flat						
Subregion (LRR or MLRA): MLRA 153B of LRR T Lat:						
	NWI classific					
Are climatic / hydrologic conditions on the site typical for this time of ye						
Are Vegetation, Soil, or Hydrology significantly						
Are Vegetation, Soil, or Hydrology naturally pr	roblematic? (If needed, explain any answer	rs in Remarks.)				
SUMMARY OF FINDINGS – Attach site map showing	g sampling point locations, transects	, important features, etc.				
Hydrophytic Vegetation Present? Yes Nox						
Hydric Soil Present? Yes No x	is the Sampled Area					
Wetland Hydrology Present? Yes No x	within a Wetland? Yes	Nox				
Remarks:		Observed Classifications:				
Fallow agriculture field		Cowardin: Upland				
		Cowardin. Opiana				
HYDROLOGY						
Wetland Hydrology Indicators:	Secondary Indica	ators (minimum of two required)				
Primary Indicators (minimum of one is required; check all that apply)		• • •				
		, ,				
Surface Water (A1) Aquatic Fauna (B1 High Water Table (A2) Marl Deposits (B1stance)		getated Concave Surface (B8)				
Saturation (A3) Hydrogen Sulfide (, ,				
Sediment Deposits (B2) — Presence of Reduced Kinzospi						
		Crayfish Burrows (C8) s (C6) Saturation Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4) Thin Muck Surface		Position (D2)				
Iron Deposits (B5) Other (Explain in F						
Inundation Visible on Aerial Imagery (B7)	Sitaliow Aqui	, ,				
Water-Stained Leaves (B9)		noss (D8) (LRR T, U)				
Field Observations:		1033 (20) (ERR 1, 0)				
Surface Water Present? Yes No _x _ Depth (inches	s):					
Water Table Present? Yes No _x Depth (inches	I					
Saturation Present? Yes No _x Depth (inches		nt? Yes Nox_				
(includes capillary fringe)						
Describe Recorded Data (stream gauge, monitoring well, aerial phot	os, previous inspections), if available:					
Boundary						
Remarks:						

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

	Absolute Dominant Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30 ft</u>) 1	% Cover Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC:1 (A)
2		Total Number of Dominant Species Across All Strata:2 (B)
4 5		Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)
6.		
	0 = Total Cover	Prevalence Index worksheet:
50% of total cover: 0	20% of total cover: 0	Total % Cover of: Multiply by:
Sapling Stratum (Plot size: 30 ft)		OBL species0 x 1 =0
1		FACW species0 x 2 =0
2		FAC species15 x 3 =45
		FACU species15 x 4 =60
3		UPL species0 x 5 =0
4		Column Totals:30 (A)105 (B)
5		
6	0 = Total Cover	Prevalence Index = B/A =3.50
500/ -51-1-1		Hydrophytic Vegetation Indicators:
	20% of total cover:0	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft)		2 - Dominance Test is >50%
1		3 - Prevalence Index is ≤3.01
2		Problematic Hydrophytic Vegetation ¹ (Explain)
3		
4		¹ Indicators of hydric soil and wetland hydrology must
5		be present, unless disturbed or problematic.
6		Definitions of Five Vegetation Strata:
	0 = Total Cover	Tree – Woody plants, excluding woody vines,
50% of total cover:0	20% of total cover:0	approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: 30 ft)		(7.6 cm) or larger in diameter at breast height (DBH).
1. Trifolium pratense, Red Clover	15 Yes FACU	Sapling – Woody plants, excluding woody vines,
2. Ranunculus sardous, Hairy Buttercup	<u>15</u> <u>Yes</u> <u>FAC</u>	approximately 20 ft (6 m) or more in height and less
3		than 3 in. (7.6 cm) DBH.
4		Shrub – Woody plants, excluding woody vines,
5		approximately 3 to 20 ft (1 to 6 m) in height.
6		Herb - All herbaceous (non-woody) plants, including
7		herbaceous vines, regardless of size, and woody
8.		plants, except woody vines, less than approximately 3 ft (1 m) in height.
9.		
10		Woody vine – All woody vines, regardless of height.
11.		
	30 = Total Cover	
50% of total cover: 15	20% of total cover:6	
Woody Vine Stratum (Plot size: 30 ft)		
1		
2		
3		
4		
5	0 = Total Cover	Hydrophytic Vegetation
500% of total agreer 0		Present? Yes No X
	20% of total cover: 0	
Remarks: (If observed, list morphological adaptations belo Agriculture field, currently fallow	w).	
Agriculture nera, currently ranow		

Sampling Point: EF W 002 UP

SOIL Sampling Point: EF W 002 UP

Profile Des	cription: (Describe	to the depth	needed to docur	nent the i	ndicator	or confirm	the absence o	f indicato	ors.)	
Depth (inches)	Matrix Color (moist)	 -	Redo Color (moist)	x Features %	4	Loc ²	Texture		Remarks	
0-12	2.5y 4/4	100%	Color (moist)		<u> Type</u>	LOC			Remarks	
							Silty loam			
12-18	2.5y 5/4						Clay loam			
				· ——						
¹ Type: C=C	oncentration, D=Dep	letion, RM=F	Reduced Matrix, M	S=Masked	Sand Gra	ains.			ining, M=Matr	
Hydric Soil	Indicators: (Application	able to all L	RRs, unless other	wise note	ed.)		Indicators fo	or Proble	matic Hydric	Soils³:
Histoso	, ,		Polyvalue Be							
	pipedon (A2) istic (A3)		Thin Dark Su Loamy Muck	, ,				ck (A10)	, ,	MLRA 150A,B)
	en Sulfide (A4)		Loamy Gleye	-		. 0,			, ,	(LRR P, S, T)
Stratifie	d Layers (A5)		Depleted Ma	trix (F3)			Anomalo	ous Bright	Loamy Soils (F20)
	Bodies (A6) (LRR P,		Redox Dark	,	,		•	(153B)	(==0)	
	ucky Mineral (A7) (LF resence (A8) (LRR U		Depleted Date Redox Depre		` '			ent Mater	ial (TF2) k Surface (TF1	2)
	uck (A9) (LRR P, T)	,	Marl (F10) (L	,	0)				Remarks)	2)
	d Below Dark Surface	e (A11)	Depleted Oc	,	(MLRA 1	51)	`		,	
	ark Surface (A12)		Iron-Mangan		, , ,	, ,			drophytic vege	
	rairie Redox (A16) (N Mucky Mineral (S1) (L		Umbric Surfa Delta Ochric			, U)		-	ogy must be p ed or problema	
	Gleyed Matrix (S4)	.KK 0, 3)	Reduced Ver			0A. 150B)	unes	s distuibe	d of problems	uc.
	Redox (S5)		Piedmont Flo				9A)			
	d Matrix (S6)		Anomalous E	Bright Loar	my Soils (I	F20) (MLR /	A 149A, 153C, 1	153 D)		
	urface (S7) (LRR P, S						Г			
	Layer (if observed):									
	ches):		_				Hydric Soil P	resent?	Yas	Nox
Remarks:							Tiyano con t	1030111.		
	field,currently fallo	W								
7.8	y .a									

Photograph Log

Date: 4/28/21

Feature Name: EF_W_002_UP



Photograph Number ______Photograph Direction South

Comments:



Photograph Number ______
Photograph Direction North

Comments:



Photograph Number _____

Photograph Direction West

Comments:



Photograph Number _____

Photograph Direction East

Comments:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Dominion CVOW	City/County: Virginia Beach	/Chesapeake	Sampling Date:	5/29/2021			
Applicant/Owner: Dominion		State: VA	Sampling Point: EF	_W_003			
Investigator(s): Emily Foster, Debbie Painter	Section, Township, Range:						
Landform (hillslope, terrace, etc.): Flat				(%): 0-5			
Subregion (LRR or MLRA): MLRA 153B of LRR T Lat:							
Soil Map Unit Name: Acredale silt loam, 0 to 1 percent slopes				II. <u>WG384</u>			
Are climatic / hydrologic conditions on the site typical for this time of							
			-				
Are Vegetationx, Soilx, or Hydrologyx significant				No			
Are Vegetation, Soil, or Hydrology naturally p	problematic? (If needed	, explain any answe	rs in Remarks.)				
SUMMARY OF FINDINGS - Attach site map showing	ng sampling point locat	ions, transects	, important feat	tures, etc.			
Hydrophytic Vagatation Propert2							
Hydrophytic Vegetation Present? Yesx No Hydric Soil Present? Yesx No	is the Sampled Area	l					
Wetland Hydrology Present? Yes x No	within a Wetland?	Yesx	No				
Remarks:	-		Observed Classific	ations:			
Disturbed fallow agricultural field. Drained by ditches, some si	mall emergent areas.		Cowardin: PEM	ations.			
			COWAIUIII. 1 EIVI				
HYDROLOGY							
Wetland Hydrology Indicators:		Secondary Indica	ators (minimum of tw	o required)			
Primary Indicators (minimum of one is required; check all that apply	()	x Surface Soil					
Surface Water (A1) Aquatic Fauna (B		Sparsely Vegetated Concave Surface (B8)					
High Water Table (A2) Marl Deposits (B		Drainage Pat					
Saturation (A3) Hydrogen Sulfide		Moss Trim Li	, ,				
	oheres along Living Roots (C3)		Water Table (C2)				
Sediment Deposits (B2) Presence of Red		x Crayfish Burn	, ,				
	uction in Tilled Soils (C6)	Saturation Vi	isible on Aerial Imag	ery (C9)			
Algal Mat or Crust (B4) Thin Muck Surface	ce (C7)	Geomorphic	Position (D2)				
Iron Deposits (B5) Other (Explain in	Remarks)	Shallow Aqui	itard (D3)				
Inundation Visible on Aerial Imagery (B7)		x FAC-Neutral	Test (D5)				
Water-Stained Leaves (B9)		Sphagnum m	noss (D8) (LRR T, U)			
Field Observations:							
Surface Water Present? Yes No _x Depth (inche	es):						
Water Table Present? Yes Nox Depth (inche	es):						
Saturation Present? Yes No _x Depth (inche		Wetland Hydrology Present? Yesx No					
(includes capillary fringe)							
Describe Recorded Data (stream gauge, monitoring well, aerial pho	otos, previous inspections), if a	vallable:					
Remarks:							

_	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft)	% Cover Species? Status	Number of Dominant Species
1		That Are OBL, FACW, or FAC:3 (A)
2		Total Number of Densinent
3		Total Number of Dominant Species Across All Strata: 3 (B)
4.		Specifical violette v
		Percent of Dominant Species
5		That Are OBL, FACW, or FAC:100.0% (A/B)
6		Prevalence Index worksheet:
	0 = Total Cover	
50% of total cover: 0	20% of total cover:0	Total % Cover of: Multiply by:
Sapling Stratum (Plot size: 30 ft)		OBL species30 x 1 =30
1		FACW species0 x 2 =0
		FAC species10 x 3 =30
2		FACU species 0 x 4 = 0
3		UPL species0 x 5 =0
4		
5		Column Totals:40 (A)60 (B)
6		Prevalence Index = B/A =1.50
	0 = Total Cover	Hydrophytic Vegetation Indicators:
50% of total cover:	20% of total cover:0	
Shrub Stratum (Plot size: 30 ft)		1 - Rapid Test for Hydrophytic Vegetation
		x 2 - Dominance Test is >50%
1		X 3 - Prevalence Index is ≤3.0¹
2		Problematic Hydrophytic Vegetation ¹ (Explain)
3		
4		¹ Indicators of hydric soil and wetland hydrology must
5		be present, unless disturbed or problematic.
6		Definitions of Five Vegetation Strata:
	0 = Total Cover	
50% of total agrees:	20% of total cover: 0	Tree – Woody plants, excluding woody vines,
	20% of total cover0	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: 30 ft)		(1.5 Sin) of larger in diameter at broadt neight (BBit).
1. <u>Juncus articulatus, Joint-Leaf Rush</u>		Sapling – Woody plants, excluding woody vines,
2. Juncus effusus, Lamp Rush		approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
3. Ranunculus sardous, Hairy Buttercup	10YesFAC	than 5 iii. (7.5 cm) DBH.
4		Shrub – Woody plants, excluding woody vines,
5		approximately 3 to 20 ft (1 to 6 m) in height.
6		Herb – All herbaceous (non-woody) plants, including
7.		herbaceous vines, regardless of size, and woody
		plants, except woody vines, less than approximately
		3 ft (1 m) in height.
9		Woody vine – All woody vines, regardless of height.
10		
11		
	= Total Cover	
50% of total cover: 20	20% of total cover:8	
Woody Vine Stratum (Plot size: 30 ft)		
1		
2.		
3		
4		
5		Hydrophytic
	0 = Total Cover	Vegetation Veg
50% of total cover: 0	20% of total cover:0	Present? Yes <u>*</u> No
Remarks: (If observed, list morphological adaptations belo	w).	1

Sampling Point: EF W 003

SOIL Sampling Point: EF W 003

Profile Des	cription: (Describe	to the dept				or confirm	the absence	of indicators.)
Depth (inches)	Matrix Color (moist)	 -	Redo: Color (moist)	x Features %	Type ¹	Loc ²	Texture	Remarks
0-6	7.5YR 4/1		10yr 5/8	15%	С	PL	Clay loam	no odor
6-12	7.5yr 4/1		2.5yr 4/6	15%		PL	Clay loam	
12-18	10yr 3/2		2.5yr 4/6	20%			Clay	
			., ., .					
l 								
17			De des e d'Adetric Ad			<u> </u>	21 4:	DI Dans Links M. Makris
	oncentration, D=Dep Indicators: (Application)					ins.		PL=Pore Lining, M=Matrix.
Histoso			Polyvalue Be			RR S. T. U		Muck (A9) (LRR O)
ı —	pipedon (A2)		Thin Dark Su					Muck (A10) (LRR S)
	istic (A3)		Loamy Muck	-		O)		ed Vertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4) d Layers (A5)		Loamy Gleye		F2)			nont Floodplain Soils (F19) (LRR P, S, T)
ı —	: Bodies (A6) (LRR P ,	T. U)	Depleted Mat Redox Dark S		6)		_	alous Bright Loamy Soils (F20) RA 153B)
	ucky Mineral (A7) (LF		x Depleted Dar	,	,		,	arent Material (TF2)
Muck P	resence (A8) (LRR U)	Redox Depre	•	3)			Shallow Dark Surface (TF12)
1 —	uck (A9) (LRR P, T)	(844)	Marl (F10) (L	•	(84) 5 4 4		Other	(Explain in Remarks)
I — ·	d Below Dark Surface ark Surface (A12)	e (A11)	Depleted Och Iron-Mangan				T) ³ India	cators of hydrophytic vegetation and
_	rairie Redox (A16) (N	ILRA 150A						tland hydrology must be present,
Sandy N	Mucky Mineral (S1) (L		Delta Ochric	(F17) (ML	RA 151)			ess disturbed or problematic.
	Gleyed Matrix (S4)		Reduced Ver					
ı —	Redox (S5) d Matrix (S6)		Piedmont Flo Anomalous B					: 153D)
ı 	ırface (S7) (LRR P, S	i, T, U)	/ #1011141043 2	origine Louis	11, 00110 (1	20) (MIZIC	, (140), (1000	, 1002)
	Layer (if observed):							
Туре:								
Depth (in	ches):						Hydric Soil	Present? Yesx No
Remarks:								

Date: <u>5/29/21</u>

Feature Name: EF_W_003



Photograph Number ____

Photograph Direction East

Comments: View of PEM wetland to the East.



Photograph Number ___

Photograph Direction North

Comments: View of PEM wetland to the North.



Photograph Number ____

Photograph Direction South

Comments:

View of PEM wetland to the South.



Photograph Number _____

Photograph Direction West

Comments: View of PEM wetland to the West.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Dominion CVOW	City/County: Chesapeake		Sampling Date: 4/29/2021			
Applicant/Owner: Dominion		State: VA	Sampling Point: EF W 003 UP			
Investigator(s): Emily Foster, Debbie Painter						
Landform (hillslope, terrace, etc.):	Local relief (concave, conve-	x, none): None	Slope (%): 0-3			
Subregion (LRR or MLRA): MLRA 153B of LRR T Lat:						
Soil Map Unit Name: Tomotley-Bertie complex, 0 to 2 percent slopes						
Are climatic / hydrologic conditions on the site typical for this time of y						
Are Vegetationx, Soilx, or Hydrologyx significantl						
Are Vegetation, Soil, or Hydrology naturally p	oblematic? (If needed	l, explain any answe	rs in Remarks.)			
SUMMARY OF FINDINGS - Attach site map showin	g sampling point locat	ions, transects	, important features, etc.			
Hudsonhidis Vanatatian Present?						
Hydrophytic Vegetation Present?	is the Sampled Area					
Wetland Hydrology Present? Yes No x	within a Wetland?	Yes	No×			
Remarks:	<u>· </u>		Observed Classifications:			
No hydrologic indicators. Fallow field, effectively drained by dif	ches		Cowardin: <u>Upland</u>			
			cowardin. Opiana			
HYDROLOGY						
Wetland Hydrology Indicators:		Secondary Indica	ators (minimum of two required)			
Primary Indicators (minimum of one is required; check all that apply)	1	Surface Soil	• • • • • • • • • • • • • • • • • • • •			
Surface Water (A1) Aquatic Fauna (B		_	getated Concave Surface (B8)			
High Water Table (A2) Marl Deposits (B1		Drainage Pa				
Saturation (A3) Hydrogen Sulfide		Moss Trim L	, ,			
	heres along Living Roots (C3)		Water Table (C2)			
Sediment Deposits (B2) Presence of Redu		Crayfish Burrows (C8)				
	ction in Tilled Soils (C6)					
Algal Mat or Crust (B4) Thin Muck Surfac	, ,	Geomorphic Position (D2)				
Iron Deposits (B5) Other (Explain in	Remarks)	Shallow Aqu	itard (D3)			
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral	Test (D5)			
Water-Stained Leaves (B9)		Sphagnum n	moss (D8) (LRR T, U)			
Field Observations:						
Surface Water Present? Yes Nox Depth (inche	s):					
Water Table Present? Yes No _x Depth (inche	s):					
Saturation Present? Yes No _x Depth (inche	s): Wetland	l Hydrology Preser	nt? Yes No×			
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial pho	tos, previous inspections), if a	vailable:				
and the state of t	, р. отгодо птороопото), п а					
Remarks:						
1						

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC:1 (A)
2				Total Number of Dominant
3				Species Across All Strata: 2 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 50.0% (A/B)
6				Prevalence Index worksheet:
	0	= Total Cov	er	Total % Cover of: Multiply by:
50% of total cover:0	20% of	total cover:	0	OBL species 0 x 1 = 0
Sapling Stratum (Plot size: 30 ft)				
1				FACW species0 x 2 =0
2				FAC species 40 x 3 = 120
3				FACU species
4				UPL species 0 x 5 = 0
5				Column Totals:100 (A)360 (B)
6				Prevalence Index = B/A =3.60
		= Total Cov	er	Hydrophytic Vegetation Indicators:
50% of total cover:0	20% of	total cover:	0	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft)				2 - Dominance Test is >50%
1				3 - Prevalence Index is ≤3.0¹
2.				Problematic Hydrophytic Vegetation¹ (Explain)
3.				Problematic Hydrophytic Vegetation (Explain)
4.				11-4:
5				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
6				Definitions of Five Vegetation Strata:
·		= Total Cov		Dominions of the vogetation strata.
50% of total agrees:				Tree – Woody plants, excluding woody vines,
50% of total cover:0 <u>Herb Stratum</u> (Plot size: <u>30 ft</u>)	20% 01	total cover.		approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
1. Ranunculus sardous, Hairy Buttercup	40	Yes	EAC	
Lolium perenne, Perennial Rye Grass		Yes		Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
				than 3 in. (7.6 cm) DBH.
3. Trifolium repens, White Clover				Shrub Weedy plants, evaluding weedy vines
4. <u>Trifolium dubium, Suckling Clover</u>			FACU	Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
5				Hart All hart and a second a second a second as
6				Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
7				plants, except woody vines, less than approximately
8				3 ft (1 m) in height.
9				Woody vine – All woody vines, regardless of height.
10				
11				
	100	= Total Cov	er	
50% of total cover: 50	20% of	total cover:	20	
Woody Vine Stratum (Plot size: 30 ft)				
1				
2				
3				
4.				
5.				Hydrophytic
	0	= Total Cov	er	Vegetation
50% of total cover: 0				Present? Yes No×
Remarks: (If observed, list morphological adaptations belo				
nomana. (ii observed, iist morphological adaptations belo	w).			

Sampling Point: EF W 003 UP

SOIL Sampling Point: EF W 003 UP

Profile Desc	cription: (Describe t	o the dep	th needed to docu	ment the i	ndicator	or confirm	n the absence	of indicators.)
Depth (inches)	Matrix Color (moist)	%	Color (moist)	x Features %	Type ¹	Loc ²	Texture	Remarks
0-6	10YR 3/2	97%	7.5YR 4/6	3%	C	PL	Sandy clay loam	
6-12	10yr 5/1	70%	7.5yr 5/8	30%			Loamy clay	
12-18	10yr 4/1		7.5yr 5/8	40%			Clay	
¹ Type: C=C	oncentration, D=Depl	etion, RM	=Reduced Matrix, M	- ——— S=Masked	Sand Gra	ins.	² Location:	PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applica	able to all	LRRs, unless othe	rwise note	ed.)		Indicators	for Problematic Hydric Soils ³ :
Histosol	' '		Polyvalue Be					luck (A9) (LRR O)
. —	pipedon (A2) istic (A3)		Thin Dark Su Loamy Muck	, ,				luck (A10) (LRR S) ed Vertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)		Loamy Gley	-		٥,		ont Floodplain Soils (F19) (LRR P, S, T)
ı —	d Layers (A5)		Depleted Ma	` '			_	lous Bright Loamy Soils (F20)
	Bodies (A6) (LRR P, ucky Mineral (A7) (LR		Redox Dark x Depleted Da	,	,		,	RA 153B) arent Material (TF2)
I —	resence (A8) (LRR U)		Redox Depre		` '			hallow Dark Surface (TF12)
I —	ıck (A9) (LRR P, T)		Marl (F10) (I	LRR U)				Explain in Remarks)
	d Below Dark Surface	(A11)	Depleted Oc	, ,	•		 > 3₁	
_	ark Surface (A12) rairie Redox (A16) (M	ILRA 150	Iron-Mangan A) Umbric Surfa		, , ,	, ,	•	ators of hydrophytic vegetation and and and and and and hydrology must be present.
	Mucky Mineral (S1) (L					-,		ess disturbed or problematic.
	Gleyed Matrix (S4)		Reduced Ve					
ı —	Redox (S5) I Matrix (S6)		Piedmont Flo			-	19A) RA 149A, 153C,	153D)
	rface (S7) (LRR P, S	, T, U)		origin Loan	113 00113 (1	20) (11121	th 140h, 1000,	1000,
Restrictive	Layer (if observed):							
Туре:								
1 1	ches):						Hydric Soil	Present? Yes No
Remarks:	anil anlaviva likak A			: 16 -1:4	ala a a a			d o atantially days lan
conditions.	soli coloring likely i	rom prio	r to drained conditi	ions. If alt	cnes were	e abando	ned this area v	would potentially develop wetland

Photograph Log

Date: 4/29/21

Feature Name: EF_W_003_UP



Photograph Number _____

Photograph Direction West

Comments:



Photograph Number _____

Photograph Direction East

Comments:



Photograph Number _____

Photograph Direction South

Comments:



Photograph Number _____

Photograph Direction North

Comments:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Dominion CVOW	City/County: Chesapea	ake	Sampling Date:	5/4/2021		
Applicant/Owner: Dominion		State: <u>VA</u>	Sampling Point: EF	W_004		
Investigator(s): Emily Foster, Kristen Walls, Chelsea Bajek	Section, Township, Ra	ange:				
Landform (hillslope, terrace, etc.): Flat				%)· 0-3		
Subregion (LRR or MLRA): MLRA 153B of LRR T Lat						
				. <u>vvd364</u>		
Soil Map Unit Name: Tomotley-Nimmo complex, 0 to 1 percent slope						
Are climatic / hydrologic conditions on the site typical for this ti						
Are Vegetationx, Soilx, or Hydrologyx sign	ificantly disturbed? Are	"Normal Circumstances" p	resent? Yes x	_ No		
Are Vegetation, Soil, or Hydrology nat	urally problematic? (If ne	eeded, explain any answe	rs in Remarks.)			
SUMMARY OF FINDINGS - Attach site map sh	owing sampling point I	ocations, transects	. important feat	ures. etc.		
		, , , , , , , , , , , , , , , , , , , ,	,	,		
Hydrophytic Vegetation Present? Yesx No	is the Sampled	d Area				
Hydric Soil Present? Yesx No	within a wetiai	nd? Yes <u>x</u>	No			
Wetland Hydrology Present? Yesx No_	<u> </u>					
Remarks:	and amorgant watland areas	annarant adiacent	Observed Classifica	itions:		
Fallow agricultural field drained by a series of ditches. So to or in vicinity of ditches with surface connection.	ime emergent wetiand areas	apparent, adjacent	Cowardin: PEM			
to or in vicinity of ditches with surface connection.						
HYDROLOGY						
Wetland Hydrology Indicators:			tors (minimum of two	required)		
Primary Indicators (minimum of one is required; check all that		x_ Surface Soil	Cracks (B6)			
Surface Water (A1) Aquatic Fa		Sparsely Vegetated Concave Surface (B8)				
	sits (B15) (LRR U)	x Drainage Pa	tterns (B10)			
	Sulfide Odor (C1)	Moss Trim Li				
	Rhizospheres along Living Roots		Water Table (C2)			
	of Reduced Iron (C4)	Crayfish Bur				
	n Reduction in Tilled Soils (C6)		isible on Aerial Image	ry (C9)		
Algal Mat or Crust (B4) Thin Muck	. ,		Position (D2)			
	lain in Remarks)	Shallow Aqu	, ,			
Inundation Visible on Aerial Imagery (B7)		x FAC-Neutral				
Water-Stained Leaves (B9)		Sphagnum n	noss (D8) (LRR T, U)			
Field Observations:						
Surface Water Present? Yes No _x Depth						
Water Table Present? Yes Nox _ Depth						
Saturation Present? Yes Nox _ Depth (includes capillary fringe)	(inches): We	etland Hydrology Preser	it? Yesx N	lo		
Describe Recorded Data (stream gauge, monitoring well, ae	ial photos, previous inspections	s), if available:				
Remarks:						
H				H		

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

_	Absolute Dominant Indicato	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft)	% Cover Species? Status	Number of Dominant Species
1		_ That Are OBL, FACW, or FAC:1 (A)
2		Total Number of Dominant
3		Species Across All Strata: 1 (B)
4.		
		Percent of Dominant Species
5		That Are OBL, FACW, or FAC: 100.0% (A/B)
6		Prevalence Index worksheet:
	0 = Total Cover	Total % Cover of:Multiply by:
50% of total cover: 0	20% of total cover:0_	OBL species90 x 1 =90
Sapling Stratum (Plot size: 30 ft)		
1		FACW species0 x 2 =0
2		FAC species10 x 3 =30
3.		FACU species 0 x 4 = 0
4.		UPL species0 x 5 =0
		Column Totals:100 (A)120 (B)
5		-
6		Prevalence Index = B/A =1.20
	0 = Total Cover	Hydrophytic Vegetation Indicators:
50% of total cover:0	20% of total cover:0	x_ 1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft)		x 2 - Dominance Test is >50%
1		_ X 3 - Prevalence Index is ≤3.0¹
2.		
		Problematic Hydrophytic Vegetation ¹ (Explain)
3		- _
4		
5		be present, unless disturbed or problematic.
6		_ Definitions of Five Vegetation Strata:
	0 = Total Cover	Tree – Woody plants, excluding woody vines,
50% of total cover:0	20% of total cover: 0	
Herb Stratum (Plot size: 30 ft)		(7.6 cm) or larger in diameter at breast height (DBH).
1. Juncus effusus, Lamp Rush	75 Yes OBL	_ Sapling - Woody plants, excluding woody vines,
Ranunculus sardous, Hairy Buttercup		approximately 20 ft (6 m) or more in height and less
		than 3 in. (7.6 cm) DBH.
3. Juncus articulatus, Joint-Leaf Rush		-
	5 <u>No</u> OBL	Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
5		-
6		Herb – All herbaceous (non-woody) plants, including
7		herbaceous vines, regardless of size, and woody
8		 plants, except woody vines, less than approximately 3 ft (1 m) in height.
9.		_ 5 14 (1 11.1) 11.11.11.11.11.11
		Woody vine - All woody vines, regardless of height.
10		-
11		-
	100 = Total Cover	
50% of total cover: 50	20% of total cover: 20	_
Woody Vine Stratum (Plot size: 30 ft)		
1		_
2.		
		-
3		-
4		-
5		- Hydrophytic
	0 = Total Cover	Vegetation Present? Yesx_ No
50% of total cover: 0	20% of total cover:0_	- Liazairi Laz MO
Remarks: (If observed, list morphological adaptations belo	w).	•

Sampling Point: EF W 004

SolL Sampling Point: EF W 004

Depth	cription: (Describe t Matrix	o trie dep		x Feature		or commi	i tile abseilce	or mulcan	oi s.,		
(inches)	Color (moist)	%	Color (moist)		Type ¹	Loc ²	Texture		Remarks		
0-6	10yr 4/2	100%					Loamy sand				
6-18	10yr 4/1	95%_	10yr 5/6	5%	C	PL	Loamy sand				
1Typo: C=C	concentration, D=Depl	otion DM-	- Poduood Motrix, M	S-Maskas			² L coation:	DI =Doro I	ining, M=Matr	·iv	
	Indicators: (Applica					XIII5.			matic Hydric		
Histoso			Polyvalue Be			RR S, T, U			_		
Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U)							2 cm Muck (A10) (LRR S)				
Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O)								Reduced Vertic (F18) (outside MLRA 150A,B)			
Hydrogen Sulfide (A4)											
Stratified Layers (A6) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6)								(MLRA 153B)			
5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7)							Red Parent Material (TF2)				
Muck Presence (A8) (LRR U) Redox Depressions (F8)							Very Shallow Dark Surface (TF12)				
1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (Explain in Remarks)											
Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T) Indicators of hydrophytic vegetation and											
	Prairie Redox (A16) (N	ILRA 150 <i>A</i>	N) Umbric Surfa	ace (F13) (LRR P, T	, U)			logy must be p		
_	Mucky Mineral (S1) (L	RR O, S)	Delta Ochric					ess disturb	ed or problema	atic.	
	Gleyed Matrix (S4) Redox (S5)		Reduced Ve Piedmont Flo								
	d Matrix (S6)		_	•		•	эд, A 149A, 153C,	153D)			
	ırface (S7) (LRR P, S	, T, U)	_		•			,			
Restrictive	Layer (if observed):										
											
	iches):						Hydric Soil	Present?	Yesx	No	
Remarks:		-l - 6-11									
Soli is distu	rbed and compacte	a, fallow a	igricultural fleid. So	ome snaii	ow surrac	e connect	tion to adjace	nt aitch.			

Date: <u>5/4/2</u>1

Feature Name: EF_W_004



Photograph Number ___

Photograph Direction East

Comments: View of a PEM wetland to the East.



Photograph Number _____

Photograph Direction South

Comments: View of a PEM wetland to the South.



Photograph Number _____

Photograph Direction West

Comments:

View of a PEM wetland to the West.



Photograph Number _____

Photograph Direction North

Comments: View of a PEM wetland to the North.

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Dominion CVOW		City/County: Chesape	eake	Sampling Date:	5/4/2021		
Applicant/Owner: <u>Dominion</u>			State: <u>VA</u>	Sampling Point: <u>EF</u>	W 004-005-006 U		
Investigator(s): Emily Foster, Kristen V	Walls, Chelsea Bajek	Section, Township, R	ange:				
Landform (hillslope, terrace, etc.): Flat		Local relief (concave,	convex, none): None	Slope (%	%): <u>0-3</u>		
Subregion (LRR or MLRA): MLRA 153B							
Soil Map Unit Name: Tomotley-Nimmo cor							
Are climatic / hydrologic conditions on the							
Are Vegetationx, Soilx, or			"Normal Circumstances		No		
			needed, explain any ansv		_ 140		
Are Vegetation, Soil, or SUMMARY OF FINDINGS - A					ires etc		
Sommary of Theblivos – A			locations, transec		7103, 610.		
Hydrophytic Vegetation Present?	Yes Nox	· Is the Samble	d Area				
Hydric Soil Present?	Yes Nox	within a Wetla	and? Yes	Nox			
Wetland Hydrology Present?	Yes Nox	.					
Remarks:	a cariac of ditabas			Observed Classifica			
Fallow agricultural field drained by	a series of ditches.			Cowardin: <u>Upland</u>			
HYDROLOGY							
Wetland Hydrology Indicators:			Secondary Indi	icators (minimum of two	required)		
Primary Indicators (minimum of one is	required: check all that apply))		oil Cracks (B6)			
Surface Water (A1)	Aquatic Fauna (B			Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10)			
High Water Table (A2)	Marl Deposits (B1						
Saturation (A3)	Hydrogen Sulfide			Moss Trim Lines (B16)			
Water Marks (B1)	—	heres along Living Roo					
Sediment Deposits (B2)	Presence of Redu	· · · · · · · · · · · · · · · · · · ·					
Drift Deposits (B3)	Recent Iron Redu	ction in Tilled Soils (C6) Saturation	Visible on Aerial Image	ry (C9)		
Algal Mat or Crust (B4)	Thin Muck Surface	e (C7)	Geomorph	ic Position (D2)			
Iron Deposits (B5)	Other (Explain in I	Remarks)	Shallow Ad	quitard (D3)			
Inundation Visible on Aerial Image	ery (B7)		FAC-Neutr	al Test (D5)			
Water-Stained Leaves (B9)			Sphagnum	n moss (D8) (LRR T, U)			
Field Observations:							
	Nox Depth (inches						
	Nox Depth (inches						
Saturation Present? Yes _ (includes capillary fringe)	Nox Depth (inches	s): W	etland Hydrology Pres	ent? Yes N	o_x		
Describe Recorded Data (stream gaus	ge, monitoring well, aerial pho	tos, previous inspection	s), if available:				
Remarks:							
H					4		

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft)	% 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: 2 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 0.0% (A/B)
6				Prevalence Index worksheet:
	0	= Total Cov	er	Total % Cover of: Multiply by:
50% of total cover: 0	20% of	f total cover:	0	OBL species15 x 1 =15
Sapling Stratum (Plot size: 30 ft)				
1				FACW species0 x 2 =0
2				FAC species 10 x 3 = 30
3				FACU species <u>45</u> x 4 = <u>180</u>
4				UPL species 0 x 5 = 0
5				Column Totals:
6				Prevalence Index = B/A =3.21
	0	= Total Cov	er	Hydrophytic Vegetation Indicators:
50% of total cover:0	20% of	ftotal cover:	0	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft)				2 - Dominance Test is >50%
1				3 - Prevalence Index is ≤3.0¹
2				Problematic Hydrophytic Vegetation¹ (Explain)
3				
4				¹ Indicators of hydric soil and wetland hydrology must
5				be present, unless disturbed or problematic.
6.				Definitions of Five Vegetation Strata:
		= Total Cov	er	To a 10/a advantanta avaludia avvandu in a
50% of total cover:0	20% of	f total cover:	0	Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: 30 ft)				(7.6 cm) or larger in diameter at breast height (DBH).
1. Poa pratensis, Kentucky Blue Grass	30	Yes	FACU	Sapling – Woody plants, excluding woody vines,
2. Lolium perenne, Perennial Rye Grass		Yes	FACU	approximately 20 ft (6 m) or more in height and less
3. Juncus articulatus, Joint-Leaf Rush				than 3 in. (7.6 cm) DBH.
4. Ranunculus sardous, Hairy Buttercup				Shrub – Woody plants, excluding woody vines,
5. Juncus effusus, Lamp Rush				approximately 3 to 20 ft (1 to 6 m) in height.
6				Herb – All herbaceous (non-woody) plants, including
7				herbaceous vines, regardless of size, and woody
8				plants, except woody vines, less than approximately
9				3 ft (1 m) in height.
				Woody vine - All woody vines, regardless of height.
10				
11		= Total Cov		
500/ -51-1-1 25				
50% of total cover: 35	20% of	r total cover:	14	
Woody Vine Stratum (Plot size: 30 ft)				
1				
2				
3				
4				
5				Hydrophytic
		= Total Cov		Vegetation
50% of total cover: 0		ftotal cover:	0	103
Remarks: (If observed, list morphological adaptations belo	w).			

Sampling Point: EF W 004-005-006UP

SOIL Sampling Point: <u>EF_W_004-0</u>05-006 UP

	cription: (Describe	to the depth				or confirm	the absence of i	indicators.)
Depth (inches)	Matrix Color (moist)	 _	Redo Color (moist)	x Feature: %	S Type ¹	_Loc ²	Texture	Remarks
0-18	10yr 3/3	100%			.,,,,		Loamy sand	
								_
¹ Type: C=C	oncentration, D=Dep	letion RM=R	educed Matrix M	S=Masker	Sand Gr	ains	2l ocation: Pl	.=Pore Lining, M=Matrix.
	Indicators: (Applic					u		Problematic Hydric Soils ³ :
Histoso	I (A1)		Polyvalue Be	elow Surfa	ce (S8) (L	.RR S, T, U) 1 cm Mucl	k (A9) (LRR O)
Histic E	pipedon (A2)		Thin Dark St					k (A10) (LRR S)
	istic (A3)		Loamy Muck	-		? O)		Vertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)		Loamy Gley		F2)			Floodplain Soils (F19) (LRR P, S, T)
ı —	d Layers (A5)	T 11\	Depleted Ma		·c)		_	is Bright Loamy Soils (F20)
	: Bodies (A6) (LRR P ucky Mineral (A7) (Lf		Redox Dark Depleted Da	,	,		(MLRA '	nt Material (TF2)
	resence (A8) (LRR U		Redox Depre					low Dark Surface (TF12)
ı —	uck (A9) (LRR P, T)	,	Marl (F10) (I		-,			plain in Remarks)
Deplete	d Below Dark Surfac	e (A11)	Depleted Oc					
_	ark Surface (A12)		Iron-Mangar					rs of hydrophytic vegetation and
	Prairie Redox (A16) (N					', U)		d hydrology must be present,
ı —	Mucky Mineral (S1) (I Gleyed Matrix (S4)	.RR O, S)	Delta Ochric Reduced Ve			OA 150B)	uniess	disturbed or problematic.
	Redox (S5)		Piedmont Flo				9A)	
ı —	d Matrix (S6)		_				A 149A, 153C, 15	53D)
	ırface (S7) (LRR P, S		_		•			•
Restrictive	Layer (if observed):							
Туре:			_					
Depth (ir	iches):		<u> </u>				Hydric Soil Pre	esent? Yes No×
Remarks:							•	

Photograph Log

Date: _______ Feature Name: _____ EF_W_004-005-006 UP



Photograph Number ______Photograph Direction West

Comments:



Photograph Number ______Photograph Direction East

Comments:



Photograph Number ______Photograph Direction South_

Comments:



Photograph Number ______Photograph Direction North_

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Dominion CVOW	City/County: Chesapeak	ke	Sampling Date:	5/4/2021
Applicant/Owner: Dominion		State: <u>VA</u>	Sampling Point: EF	_W_005
Investigator(s): Emily Foster, Kristen Walls, Chelsea Bajek				
Landform (hillslope, terrace, etc.): Flat				%): 0-3
Subregion (LRR or MLRA): MLRA 153B of LRR T Lat:				
Soil Map Unit Name: Tomotley-Nimmo complex, 0 to 1 percent slopes		•		
Are climatic / hydrologic conditions on the site typical for this time of you				
Are Vegetation <u>x</u> , Soil <u>x</u> , or Hydrology <u>x</u> significantly				No
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If nee	eded, explain any answe	rs in Remarks.)	
SUMMARY OF FINDINGS – Attach site map showing	g sampling point lo	cations, transects	, important feat	tures, etc.
Hydrophytic Vegetation Present? Yesx No				
Hydric Soil Present? Yes _x_ No	is the Sampled A			
Wetland Hydrology Present? Yesx No	within a Wetland	d? Yes <u> </u>	No	
Remarks:			Observed Classific	ations:
Fallow agriculturak field with some emergent wetland areas ad	jacent to ditches.		Cowardin: PEM	
HYDROLOGY				
Wetland Hydrology Indicators:		Secondary Indica	tors (minimum of two	o required)
Primary Indicators (minimum of one is required; check all that apply)		x Surface Soil	Cracks (B6)	
Surface Water (A1) Aquatic Fauna (B1	13)		getated Concave Sur	rface (B8)
High Water Table (A2) Marl Deposits (B1		× Drainage Pat		
Saturation (A3) Hydrogen Sulfide		Moss Trim Li	, ,	
	neres along Living Roots ((C3) Dry-Season \	Water Table (C2)	
Sediment Deposits (B2) Presence of Redu		Crayfish Burr	, ,	
	ction in Tilled Soils (C6)		isible on Aerial Image	ery (C9)
Algal Mat or Crust (B4) Thin Muck Surface	, ,		Position (D2)	, (,
Iron Deposits (B5) Other (Explain in F		Shallow Aqui		
Inundation Visible on Aerial Imagery (B7)	,	x FAC-Neutral	, ,	
Water-Stained Leaves (B9)			noss (D8) (LRR T, U))
Field Observations:			. , , , , , ,	,
Surface Water Present? Yes Nox Depth (inches	s):			
Water Table Present? Yes Nox Depth (inches				
Saturation Present? Yes No _x Depth (inches		land Hydrology Presen	t? Yes_xI	No
(includes capillary fringe)				
Describe Recorded Data (stream gauge, monitoring well, aerial phot	os, previous inspections),	, if available:		
Remarks:				
Nomarks.				

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

_	Absolute Dominant Indicato	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft)	% Cover Species? Status	Number of Dominant Species
1		_ That Are OBL, FACW, or FAC:1 (A)
2		Total Number of Dominant
3		Species Across All Strata: 1 (B)
4.		
		Percent of Dominant Species
5		That Are OBL, FACW, or FAC: 100.0% (A/B)
6		Prevalence Index worksheet:
	0 = Total Cover	Total % Cover of:Multiply by:
50% of total cover: 0	20% of total cover:0_	OBL species90 x 1 =90
Sapling Stratum (Plot size: 30 ft)		
1		FACW species0 x 2 =0
2		FAC species10 x 3 =30
3.		FACU species 0 x 4 = 0
4.		UPL species0 x 5 =0
		Column Totals:100 (A)120 (B)
5		-
6		Prevalence Index = B/A =1.20
	0 = Total Cover	Hydrophytic Vegetation Indicators:
50% of total cover:0	20% of total cover:0	x_ 1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft)		x 2 - Dominance Test is >50%
1		_ X 3 - Prevalence Index is ≤3.0¹
2.		
		Problematic Hydrophytic Vegetation ¹ (Explain)
3		- _
4		
5		be present, unless disturbed or problematic.
6		_ Definitions of Five Vegetation Strata:
	0 = Total Cover	Tree – Woody plants, excluding woody vines,
50% of total cover:0	20% of total cover: 0	
Herb Stratum (Plot size: 30 ft)		(7.6 cm) or larger in diameter at breast height (DBH).
1. Juncus effusus, Lamp Rush	75 Yes OBL	_ Sapling - Woody plants, excluding woody vines,
Ranunculus sardous, Hairy Buttercup		approximately 20 ft (6 m) or more in height and less
		than 3 in. (7.6 cm) DBH.
3. Juncus articulatus, Joint-Leaf Rush		-
	5 <u>No</u> OBL	Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
5		-
6		Herb – All herbaceous (non-woody) plants, including
7		herbaceous vines, regardless of size, and woody
8		 plants, except woody vines, less than approximately 3 ft (1 m) in height.
9.		_ 5 14 (1 11.1) 11.11.11.11.11.11
		Woody vine - All woody vines, regardless of height.
10		-
11		-
	100 = Total Cover	
50% of total cover: 50	20% of total cover: 20	_
Woody Vine Stratum (Plot size: 30 ft)		
1		_
2.		
		-
3		-
4		-
5		- Hydrophytic
	0 = Total Cover	Vegetation Present? Yesx_ No
50% of total cover: 0	20% of total cover:0_	- Liazairi Laz MO
Remarks: (If observed, list morphological adaptations belo	w).	•

Sampling Point: EF W 005

SOIL Sampling Point: EF W 005

	cription: (Describe t	to the depi	in needed to docur	nent the i	iuicator	or contirm	the absence of	indicators.)
Depth (inches)	Matrix Color (moist)	%	Redo Color (moist)	x Features %	Type ¹	Loc ²	Texture	Remarks
0-6	10yr 4/2	100%	COICI (IIIOISI)		1,400		Loamy sand	Kemarks
6-18	10yr 4/1		10yr 5/6	5%		PL		
0-10	1091 4/1	95%	10yl 3/6				Loamy sand	
	·							
	Concentration, D=Depl					ains.		L=Pore Lining, M=Matrix.
1	Indicators: (Applica	able to all						r Problematic Hydric Soils ³ :
Histoso	• ,		Polyvalue Be					ck (A9) (LRR O)
_	pipedon (A2) listic (A3)		Thin Dark Su Loamy Muck	, ,				ck (A10) (LRR S) Vertic (F18) (outside MLRA 150A,B)
_	en Sulfide (A4)		Loamy Gleye	-		٥,		t Floodplain Soils (F19) (LRR P, S, T)
Stratifie	d Layers (A5)		x Depleted Ma					us Bright Loamy Soils (F20)
	Bodies (A6) (LRR P,		Redox Dark	,	-		(MLRA	·
	ucky Mineral (A7) (LR resence (A8) (LRR U		Depleted Date Redox Depre		. ,			nt Material (TF2) llow Dark Surface (TF12)
ı —	uck (A9) (LRR P, T)	,	Marl (F10) (L	,	"			(plain in Remarks)
1 —	d Below Dark Surface	e (A11)	Depleted Oc		MLRA 15	51)		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
_	ark Surface (A12)		Iron-Mangan					ors of hydrophytic vegetation and
	Prairie Redox (A16) (N				, ,	U)		nd hydrology must be present,
	Mucky Mineral (S1) (L Gleyed Matrix (S4)	.KK U, S)	Delta Ochric Reduced Ver			NA 150B)		disturbed or problematic.
I —	Redox (S5)		Piedmont Flo					
Strippe	d Matrix (S6)		Anomalous E	Bright Loar	ny Soils (F	20) (MLR	A 149A, 153C, 1	53D)
	urface (S7) (LRR P, S							
	Layer (if observed):							
Type:	abao):						Hydria Sail Dr	recent? Vec X No
Depth (in	icnes):						Hydric Soil Pr	resent? Yesx No
Remarks:	irbed and compacte	d fallow a	gricultural field Sk	nallow sur	face con	nection to	adjacent ditch	
3011 13 01300	irbed and compacte	u, ranow a	griculturar neia. 3i	ianow sui	race com	iection to	aujacent uncii.	

Date: <u>5/4/2</u>1

Feature Name: EF_W_005



Photograph Number ___

Photograph Direction East

Comments: View of a PEM wetland to the East.



Photograph Number _____

Photograph Direction South

Comments: View of a PEM wetland to the South.



Photograph Number _____

Photograph Direction North

Comments:

View of a PEM wetland to the North.



Photograph Number _____

Photograph Direction West

Comments: View of a PEM wetland to the West.

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Dominion CVOW	City/County: Chesapeake		Sampling Date:	5/4/2021
Applicant/Owner: Dominion		State: VA	Sampling Point: EF	W_006
Investigator(s): Emily Foster, Kristen Walls, Chelsea Bajek	Section, Township, Range:			
Landform (hillslope, terrace, etc.): Flat				%)· 0-3
Subregion (LRR or MLRA): MLRA 153B of LRR T Lat:				
				, <u>wasa4</u>
Soil Map Unit Name: Tomotley-Nimmo complex, 0 to 1 percent slopes				
Are climatic / hydrologic conditions on the site typical for this time				
Are Vegetationx, Soilx, or Hydrologyx signific	antly disturbed? Are "Norma	al Circumstances" p	resent? Yesx_	_ No
Are Vegetation, Soil, or Hydrology natural	y problematic? (If needed,	explain any answe	rs in Remarks.)	
SUMMARY OF FINDINGS - Attach site map show	ving sampling point locati	ons, transects	, important feat	ures, etc.
-			•	
Hydrophytic Vegetation Present? Yesx No	is the Sampled Area			
Hydric Soil Present? Yesx No	within a Wetland?	Yesx	No	
Wetland Hydrology Present? Yesx No	<u> </u>			
Remarks:	ront watlands adjacent to ditch	oc with	Observed Classifica	itions:
Agricultural field being drained by a series of ditches. Emerg shallow surface connection.	gent wetlands adjacent to ditch	es with	Cowardin: PEM	
Sitation Surface conflection.				
HYDROLOGY				
Wetland Hydrology Indicators:		Secondary Indica	tors (minimum of two	required)
Primary Indicators (minimum of one is required; check all that ap		X Surface Soil	Cracks (B6)	
Surface Water (A1) Aquatic Fauna			getated Concave Surf	ace (B8)
High Water Table (A2) Marl Deposits		Drainage Pat	tterns (B10)	
Saturation (A3) Hydrogen Sulf		Moss Trim Li		
	ospheres along Living Roots (C3)		Water Table (C2)	
Sediment Deposits (B2) Presence of R		x Crayfish Burr		
	eduction in Tilled Soils (C6)		isible on Aerial Image	ry (C9)
Algal Mat or Crust (B4) Thin Muck Sui			Position (D2)	
Iron Deposits (B5) Other (Explain	in Remarks)	Shallow Aqui	. ,	
Inundation Visible on Aerial Imagery (B7)		x FAC-Neutral	, ,	
Water-Stained Leaves (B9)		Sphagnum m	noss (D8) (LRR T, U)	
Field Observations:				
Surface Water Present? Yes No _x Depth (in				
Water Table Present? Yes No _x Depth (in	ches):			
Saturation Present? Yes No _x Depth (includes capillary fringe)	ches): Wetland	Hydrology Presen	it? Yesx N	lo
Describe Recorded Data (stream gauge, monitoring well, aerial)	l photos, previous inspections), if av	railable:		
	, , ,			
Remarks:				

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

_	Absolute	Dominant	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft)		r Species?		Number of Dominant Species
1				That Are OBL, FACW, or FAC:1 (A)
2				Total Number of Deminent
3				Total Number of Dominant Species Across All Strata: 1 (B)
4.				(5)
				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100.0% (A/B)
6				Prevalence Index worksheet:
		_ = Total Cove		Total % Cover of:Multiply by:
50% of total cover: 0	20% c	of total cover:	0	OBL species x 1 =
Sapling Stratum (Plot size: 30 ft)				
1				FACW species0 x 2 =0
2				FAC species 10 x 3 = 30
3.				FACU species0 x 4 =0
				UPL species0 x 5 =0
4				Column Totals: <u>85</u> (A) <u>105</u> (B)
5				(-)
6				Prevalence Index = B/A =1.24
	0	_ = Total Cove	r	Hydrophytic Vegetation Indicators:
50% of total cover: 0	20% c	of total cover:	0	x 1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft)				x 2 - Dominance Test is >50%
1				x 3 - Prevalence Index is ≤3.0¹
				<u> </u>
2				Problematic Hydrophytic Vegetation¹ (Explain)
3				
4				¹ Indicators of hydric soil and wetland hydrology must
5				be present, unless disturbed or problematic.
6				Definitions of Five Vegetation Strata:
		= Total Cove		Tree – Woody plants, excluding woody vines,
50% of total cover: 0	20% c	of total cover:	0	approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: 30 ft)				(7.6 cm) or larger in diameter at breast height (DBH).
1. Juncus effusus, Lamp Rush	55	Ves	OBL	San Hara National and a surficient and a surficient
Typha latifolia, Broad-Leaf Cat-Tail				Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
				than 3 in. (7.6 cm) DBH.
3. Ranunculus sardous, Hairy Buttercup				
4. <u>Juncus articulatus, Joint-Leaf Rush</u>		<u>No</u>		Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
5				approximately 3 to 20 ft (1 to 6 fff) in height.
6				Herb – All herbaceous (non-woody) plants, including
7				herbaceous vines, regardless of size, and woody
8.				plants, except woody vines, less than approximately 3 ft (1 m) in height.
9.				o k (1 m) in noight.
				Woody vine - All woody vines, regardless of height.
10				
11				
	85	_ = Total Cove	r	
50% of total cover: <u>42.5</u>	20% c	of total cover:	17	
Woody Vine Stratum (Plot size: 30 ft)				
1				
2.				
3				
4				
5				Hydrophytic
	0	_ = Total Cove	r	Vegetation
50% of total cover: 0	20% c	of total cover:	0	Lieseuri ies NO
Remarks: (If observed, list morphological adaptations belo	w).			1

Sampling Point: EF W 006

SOIL Sampling Point: EF W 006

Depth (inches)
0-6 10yr 4/2 100% Loamy sand
0-16 10y1 4/1 95% 10y1 5/6 5% C PL Loaniy sand
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils ³ :
Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O)
Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (outside MLRA 150A,B)
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, T)
Stratified Layers (A5) x Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20)
Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B)
5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2)
Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (Explain in Remarks)
Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151)
Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T) Indicators of hydrophytic vegetation and
Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) wetland hydrology must be present,
Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) unless disturbed or problematic. Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B)
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A)
Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)
Dark Surface (S7) (LRR P, S, T, U)
Restrictive Layer (if observed):
Type:
Depth (inches): Hydric Soil Present? Yes _ x No
Remarks:
Soil is disturbed and compacted, fallow agricultural field.

Date: <u>5/4/21</u>

Feature Name: EF_W_006



Photograph Number ___

Photograph Direction North

Comments: $\Big|_{\mbox{View of a PEM wetland to the North.}}$



Photograph Number _____

Photograph Direction South

Comments: View of a PEM wetland to the South.



Photograph Number _____

Photograph Direction East

Comments:

View of a PEM wetland to the East.



Photograph Number _____

Photograph Direction West

Comments: View of a PEM wetland to the West.

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Dominion CVOW	1		City/County: Ches	apeake		Sampling Date:	5/5/2021
Applicant/Owner: Dominion					State: VA	Sampling Point: EF	W 008 PEM
Investigator(s): Emily Foster, k	risten Walls						
Landform (hillslope, terrace, etc							
Subregion (LRR or MLRA): ML							
							II. <u>WG384</u>
Soil Map Unit Name: 2: Acredale							
Are climatic / hydrologic conditi							
Are Vegetation, Soil	, or Hydrology	significantly	disturbed?	Are "Norma	I Circumstances" p	present? Yes x	No
Are Vegetation, Soil	, or Hydrology	naturally pro	oblematic?	(If needed, o	explain any answe	rs in Remarks.)	
SUMMARY OF FINDING	S – Attach sit	e map showing	sampling poi	nt locatio	ons, transects	, important feat	tures, etc.
						-	
Hydrophytic Vegetation Prese		× No	Is the Sam	pled Area			
Hydric Soil Present?		x No	within a W	etland?	Yesx	No	
Wetland Hydrology Present?	Yes	x No					
Remarks:						Observed Classific	ations:
Disturbed emergent wetlan	d in existing powe	erline easement.				Cowardin: PEM	
HYDROLOGY							
Wetland Hydrology Indicato	ors:				Secondary Indica	ators (minimum of tw	o required)
Primary Indicators (minimum		check all that apply)			x Surface Soil	Cracks (B6)	
Surface Water (A1)		Aquatic Fauna (B1				getated Concave Su	rface (B8)
High Water Table (A2)	_	Marl Deposits (B15			Oparsely ve		nace (Bo)
Saturation (A3)	_	Hydrogen Sulfide C			Moss Trim L		
Water Marks (B1)	_	Oxidized Rhizosph		note (C3)		Water Table (C2)	
Sediment Deposits (B2)	_	Presence of Reduc		(00)	x Crayfish Bur		
Drift Deposits (B3)	_	Recent Iron Reduc		C6)		isible on Aerial Imag	env (CQ)
Algal Mat or Crust (B4)	_	Thin Muck Surface		C0)	Geomorphic	_	ery (Ca)
Iron Deposits (B5)		Other (Explain in R			Shallow Aqu		
Inundation Visible on Aer		Other (Explain III N	emarks)		× FAC-Neutral	, ,	
Water-Stained Leaves (B					_	noss (D8) (LRR T, U	Λ
Field Observations:	3)				Opilagilalii ii	1035 (D0) (ERR 1, C	<u>'</u>
Surface Water Present?	Voc. No.	x Depth (inches	١.				
Water Table Present?		x Depth (inches)		Method	hadaalaan Daasaa	42 Van v	
Saturation Present? (includes capillary fringe)	Yes No _	x Depth (inches)):	wetiand	Hydrology Preser	it? Yesx	No
Describe Recorded Data (stre	am gauge, monitor	ing well, aerial photo	os, previous inspec	tions), if ava	ailable:		
Remarks:							
							٦
I							1

		Dominant		Dominance Test worksheet:		
Tree Stratum (Plot size: 30 ft)	% Cover	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
3.				Total Number of Dominant Species Across All Strata:	2	(B)
4. 5.				Percent of Dominant Species That Are OBL, FACW, or FAC:	100.0%	(A/B)
6				Prevalence Index worksheet:		
	0	= Total Cov	er	Total % Cover of:	Multiply by	
50% of total cover: 0	20% o	f total cover:	0	OBL species 70 x		
Sapling Stratum (Plot size: 30 ft)						
1				FACW species15 x		
2				FAC species 5 x		
3				FACU species 0 x		
4				UPL species 0 x		
5				Column Totals:90 (A	.) 115	(B)
6				Prevalence Index = B/A =		_
500/ official courses 0				Hydrophytic Vegetation Indica		
50% of total cover:0	20% o	total cover:		× 1 - Rapid Test for Hydrophyl		
Shrub Stratum (Plot size: 30 ft)				X 2 - Dominance Test is >50%		
1				X 3 - Prevalence Index is ≤3.0	1	
2				Problematic Hydrophytic Ve	getation¹ (Expla	in)
3						
4	·			¹ Indicators of hydric soil and wet	land hydrology i	must
5				be present, unless disturbed or p		
6				Definitions of Five Vegetation	Strata:	
	0	= Total Cov	er	Tree – Woody plants, excluding	woody vines.	
50% of total cover: 0	20% o	f total cover:	0	approximately 20 ft (6 m) or more	e in height and 3	
Herb Stratum (Plot size: 30 ft)				(7.6 cm) or larger in diameter at l	breast height (D	BH).
1. Typha latifolia, Broad-Leaf Cat-Tail	25	Yes	OBL	Sapling - Woody plants, excludi	ing woody vines	; ,
2. Carex Iurida, Shallow Sedge	25	<u>Yes</u>	OBL	approximately 20 ft (6 m) or more	e in height and l	ess
3. Juncus effusus, Lamp Rush	15	No	OBL	than 3 in. (7.6 cm) DBH.		
4. Arundinaria tecta, Switch Cane	15	<u>No</u>	FACW	Shrub - Woody plants, excluding		
5. Carex lonchocarpa, Southern Long Sedge			OBL	approximately 3 to 20 ft (1 to 6 m	1) in height.	
6. Solidago sp.	_			Herb - All herbaceous (non-woo	ody) plants, inclu	ıding
7. Acer rubrum, Red Maple	_		FAC	herbaceous vines, regardless of		
8.				plants, except woody vines, less 3 ft (1 m) in height.	than approxima	ately
9.				o it (1 m) in noight.		
10.				Woody vine – All woody vines, r	regardless of he	eight.
11.						
···		= Total Cov	er			
50% of total cover: <u>47.</u> .						
Woody Vine Stratum (Plot size: 30 ft)		1 10101 00701				
1						
2.						
3						
4						
5				Hydrophytic Vegetation		
500/ 5111		= Total Cov			No	
50% of total cover: 0		total cover:				
Remarks: (If observed, list morphological adaptations below	OW).					

SOIL Sampling Point: <u>EF_W_008_PEM</u>

	cription: (Describe	to the dep				or confirm	n the absence of	indicators.)
Depth (inches)	Matrix Color (moist)	%	Redox Color (moist)	x Features	Type ¹ _	_Loc ²	Texture	Remarks
0-6	10yr 4/2	95%	10yr 4/6	5%	С	PL	Clay loam	
6-18	10yr 5/2	90%	10yr 4/6	10%		PL	Silty clay loam	_
¹ Type: C=0	Concentration, D=Dep	letion, RM:	=Reduced Matrix, MS	=Masked	Sand Gra	ains.		L=Pore Lining, M=Matrix. r Problematic Hydric Soils³:
Black F Hydrog Stratifie Organie 5 cm M Muck F 1 cm M Deplete Thick E	Epipedon (A2) Histic (A3) Histic (A3) Hen Sulfide (A4) Hed Layers (A5) Ho Bodies (A6) (LRR P) Hucky Mineral (A7) (LF Heresence (A8) (LRR U) Huck (A9) (LRR P, T) Hed Below Dark Surface Horizontal (A16) (Necessaria (Necessaria (Necessar	RR P, T, U)) e (A11)	Redox Depre Marl (F10) (L Depleted Och Iron-Mangane A) Umbric Surfa	rface (S9) y Mineral (d Matrix (I trix (F3) Surface (F4 k Surface essions (F8 RR U) nric (F11) ese Masse ce (F13) ((LRR S, (F1) (LRR F2) 6) (F7) 3) (MLRA 15 es (F12) (I LRR P, T,	T, U) O) i1) LRR O, P,	2 cm Muc Reduced Piedmont Anomalou (MLRA Red Pare Very Shal Other (Ex	ent Material (TF2) Illow Dark Surface (TF12) Explain in Remarks) Ors of hydrophytic vegetation and End hydrology must be present,
ı —	Mucky Mineral (S1) (L Gleyed Matrix (S4)	RR O, S)	Delta Ochric Reduced Ver			NA 150R)		disturbed or problematic.
	Redox (S5)		Piedmont Flo					
I · ·	d Matrix (S6)		Anomalous B	right Loan	ny Soils (f	20) (MLR	RA 149A, 153C, 1	53D)
	urface (S7) (LRR P, S Layer (if observed):						T	
_	Layer (ii observed).							
" -	nches):						Hydric Soil Pr	esent? Yes <u> </u>
Remarks:								

Date: 5/3/21

Feature Name: EF_W_008 PEM



Photograph Number _____

Photograph Direction West

Comments: None.



Photograph Number _____

Photograph Direction East

Comments: None.



Photograph Number _____

Photograph Direction South

Comments:



Photograph Number _____

Photograph Direction North

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Dominion CVOV	V			City/County: Ches	apeake		Sampling Date:	5/5/2021
Applicant/Owner: Dominion						State: VA	Sampling Point: El	F W 008 PFO
Investigator(s): Emily Foster,	Kristen \	Walls		Section, Township	, Range:			
Landform (hillslope, terrace, e								
Subregion (LRR or MLRA): M								
Soil Map Unit Name: 2: Acredal								III. <u>WG384</u>
Are climatic / hydrologic condi								
Are Vegetation, Soil _					Are "Norma	l Circumstances"	present? Yesx	No
Are Vegetation, Soil _	, or	Hydrology	naturally pr	roblematic?	(If needed,	explain any answ	ers in Remarks.)	
SUMMARY OF FINDING	GS – A	ttach si	te map showing	g sampling poi	nt locatio	ons, transects	s, important fea	tures, etc.
Hydrophytic Vegetation Pres	ont?	Voc	x No					
Hydric Soil Present?	ent:		× No	is the bank	•			
Wetland Hydrology Present?	j		x No	within a W	etland?	Yes	No	
Remarks:				·			Observed Classifi	cations:
Large PFO complex associa	ted with	Gum Swa	mp. To NE and SW	of existing power	line easem	nent. Upland	Cowardin: PFO	
point is JD_W_004 .				01		·	cowarani.	
point is 3D_vv_coo+ .								
HYDROLOGY								
Wetland Hydrology Indicat	ors:						ators (minimum of tv	vo required)
Primary Indicators (minimum	of one is	required;	check all that apply)			Surface Soi		
x Surface Water (A1) Aquatic Fauna (B13)						getated Concave Su	ırface (B8)	
High Water Table (A2) Marl Deposits (B15) (LRR N							atterns (B10)	
X Saturation (A3)		_	Hydrogen Sulfide			Moss Trim L	. ,	
				heres along Living F	loots (C3)		Water Table (C2)	
Sediment Deposits (B2) Presence of Redu						Crayfish Bu		(00)
Drift Deposits (B3)		_	-	ction in Tilled Soils (C6)		/isible on Aerial Imag	jery (C9)
Algal Mat or Crust (B4)		_	Thin Muck Surface	, ,			Position (D2)	
Iron Deposits (B5) Inundation Visible on Ae	rial Imag		Other (Explain in F	Remarks)		Shallow Aques x FAC-Neutra	, ,	
Water-Stained Leaves (I	-	ery (b/)				_	moss (D8) (LRR T, l	n
Field Observations:	50)					Spriagrium	noss (Do) (ERR 1, C	<u>"</u>
Surface Water Present?	Voc	X No	Depth (inches	a): 0-1				
Water Table Present? Saturation Present?			Depth (inches		Wetland	Hydrology Prese	nt? Voc X	No
(includes capillary fringe)	res_	NO _	Depth (inches	s). <u>U</u>	vvenanu	nyarology Frese	ntr res	No
Describe Recorded Data (str	eam gau	ge, monito	ring well, aerial phot	tos, previous inspec	tions), if ava	ailable:		
Remarks:								
-								\dashv
I								

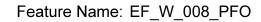
	Absolute Dominant Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30 ft</u>)	% Cover Species? Status	Number of Dominant Species
1. Acer rubrum, Red Maple	<u>35</u> <u>Yes</u> <u>FAC</u>	That Are OBL, FACW, or FAC:6 (A)
2. Salix nigra, Black Willow	35 Yes OBL	Total Newsham of Bassians
3.		Total Number of Dominant Species Across All Strata: 6 (B)
		Opedies Across Air otrata.
4		Percent of Dominant Species
5		That Are OBL, FACW, or FAC:100.0% (A/B)
6		Prevalence Index worksheet:
	= Total Cover	
50% of total cover: 35	20% of total cover:14	Total % Cover of: Multiply by:
Sapling Stratum (Plot size: 30 ft)		OBL species45 x 1 =45
1		FACW species15 x 2 =30
		FAC species
2		FACU species 0 x 4 = 0
3	· —— —— ——	UPL species 0 x 5 = 0
4		1
5		Column Totals:130 (A)285 (B)
6		Prevalence Index = B/A =2.19
	0 = Total Cover	
500/ official powers 0		Hydrophytic Vegetation Indicators:
	20% of total cover:0	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft)		X 2 - Dominance Test is >50%
1. Acer rubrum, Red Maple		X 3 - Prevalence Index is ≤3.01
2		Problematic Hydrophytic Vegetation¹ (Explain)
3		
4.		1-5-1-5-1-5
		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5		, ,
6		Definitions of Five Vegetation Strata:
	= Total Cover	Tree – Woody plants, excluding woody vines,
50% of total cover:12.5	5 20% of total cover:5	approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: 30 ft)		(7.6 cm) or larger in diameter at breast height (DBH).
1. Arundinaria gigantea, Giant Cane	15 Yes FACW	Sapling – Woody plants, excluding woody vines,
Saururus cernuus, Lizard's-Tail		approximately 20 ft (6 m) or more in height and less
		than 3 in. (7.6 cm) DBH.
3		
4		Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
5		approximately 5 to 20 it (1 to 6 iii) iii fleight.
6		Herb – All herbaceous (non-woody) plants, including
7		herbaceous vines, regardless of size, and woody
8.		plants, except woody vines, less than approximately 3 ft (1 m) in height.
		3 it (1 m) in neight.
9		Woody vine - All woody vines, regardless of height.
10		
11		
	= Total Cover	
50% of total cover: <u>12.5</u>	5 20% of total cover:5	
Woody Vine Stratum (Plot size: 30 ft)		
1. Smilax rotundifolia, Horsebrier	10YesFAC	
2.		
3		
4		
5		Hydrophytic
	10 = Total Cover	Vegetation
50% of total cover: 5	20% of total cover: 2	Present? Yesx No
Remarks: (If observed, list morphological adaptations belo	JVV).	

Sampling Point: EF W 008 PFO

SOIL Sampling Point: <u>EF_W_008_P</u>FO

Profile Des	cription: (Describe	to the depth	needed to docur	ment the i	ndicator	or confirm	the absence o	of indicators.)
Depth	Matrix			x Feature		12	Tt	Demode
(inches)	Color (moist)	<u>%</u> _	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-6	10yr 2/1	100%					Muck	
6-18	10yr 4/1						Clay	
¹ Type: C=C	oncentration, D=Dep	letion, RM=R	educed Matrix, M	S=Masked	Sand Gr	ains.	² Location: I	PL=Pore Lining, M=Matrix.
	Indicators: (Applic							or Problematic Hydric Soils ³ :
Histosol	' '		Polyvalue Be					uck (A9) (LRR O)
	pipedon (A2)		Thin Dark Su	, ,				uck (A10) (LRR S)
ı —	istic (A3) en Sulfide (A4)		Loamy Muck	-		(0)		d Vertic (F18) (outside MLRA 150A,B) nt Floodplain Soils (F19) (LRR P, S, T)
	d Layers (A5)		× Depleted Ma		12)			ous Bright Loamy Soils (F20)
	Bodies (A6) (LRR P		Redox Dark	Surface (F	6)			A 153B)
	ucky Mineral (A7) (Ll		Depleted Da					rent Material (TF2)
ı —	resence (A8) (LRR U uck (A9) (LRR P, T))	Redox Depre Marl (F10) (L	•	8)			allow Dark Surface (TF12) Explain in Remarks)
_	d Below Dark Surfac	e (A11)	Depleted Oc	•	(MLRA 1	51)	Other (E	Explain in Remarks)
	ark Surface (A12)	- ()	Iron-Mangan				Γ) ³ Indica	tors of hydrophytic vegetation and
ı —	rairie Redox (A16) (I					, U)		and hydrology must be present,
	Mucky Mineral (S1) (I	RR O, S)	Delta Ochric			0A 460B)	unles	ss disturbed or problematic.
	Gleyed Matrix (S4) Redox (S5)		Reduced Ve				(A)	
_	d Matrix (S6)						149A, 153C,	153D)
	ırface (S7) (LRR P, S							
Restrictive	Layer (if observed):							
"			_					
	ches):		_				Hydric Soil F	Present? Yes <u>x</u> No
Remarks:								

Date: 5/5/21







Photograph Direction West

Comments:

Photograph Direction East

Comments:





Photograph Direction South

Comments:

Photograph Direction North

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: CVOW Dominion	City/County: Chesa	apeake	_ Sampling Date:	5/5/2021
Applicant/Owner: Dominion		State: VA	Sampling Point: EF	:_W_009
Investigator(s): Emily Foster, Kristen Walls				
Landform (hillslope, terrace, etc.): Hillslope				(%): 0-5
Subregion (LRR or MLRA): MLRA 153B of LRR T Lat:				
Soil Map Unit Name: 2: Acredale-Chapanoke complex, 0 to 1 percent slopes				
Are climatic / hydrologic conditions on the site typical for this time of your Are Vegetation, Soil, or Hydrology significantly				No
		(If needed, explain any answe		_ 140
Are Vegetation, Soil, or Hydrology naturally pr			,	
SUMMARY OF FINDINGS – Attach site map showing	g sampling poil	nt locations, transects	s, important fea	tures, etc.
Hydrophytic Vegetation Present? Yesx No	Is the Sam	nlad Araa		
Hydric Soil Present? Yesx No	within a We		<u> </u>	
Wetland Hydrology Present? Yesx No	. Within a vvi	ettanur 165		
Remarks:			Observed Classific	cations:
Disturbed wetland in existing powerline easement. ssoc	o s JD_	006_	Cowardin: PEM	
HYDROLOGY				
Wetland Hydrology Indicators:		Secondary Indic	ators (minimum of tw	o required)
Primary Indicators (minimum of one is required; check all that apply))	x Surface Soil	Cracks (B6)	
Surface Water (A1) Aquatic Fauna (B ²			egetated Concave Su	ırface (B8)
High Water Table (A2) Marl Deposits (B1			atterns (B10)	ridoc (Bo)
Saturation (A3) Hydrogen Sulfide		Moss Trim L	, ,	
Water Marks (B1) X Oxidized Rhizospl			Water Table (C2)	
Sediment Deposits (B2) Presence of Redu		× Crayfish Bu	, ,	
Drift Deposits (B3) Recent Iron Redu			/isible on Aerial Imag	ery (C9)
Algal Mat or Crust (B4) Thin Muck Surface	,		Position (D2)	ici y (CO)
Iron Deposits (B5) Other (Explain in F		Shallow Aqu		
Inundation Visible on Aerial Imagery (B7)	(cmarks)	× FAC-Neutra	, ,	
Water-Stained Leaves (B9)			moss (D8) (LRR T, U	n
Field Observations:			11000 (20) (211111)	,
Surface Water Present? Yes No _x _ Depth (inches	s):			
Water Table Present? Yes No _x Depth (inches	l l			
Saturation Present? Yes No _x Depth (inches		Wetland Hydrology Prese	nt? Yes X	No
(includes capillary fringe)				
Describe Recorded Data (stream gauge, monitoring well, aerial phot	os, previous inspect	tions), if available:		
Remarks:				
Nemarks.				
				1

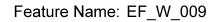
	Absolute Dominar	nt Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30 ft</u>)	% Cover Species	? Status	Number of Dominant Species
1			That Are OBL, FACW, or FAC:3 (A)
2			Tatal Name of Bassians
3.			Total Number of Dominant Species Across All Strata: 3 (B)
			Opecies Across Air Strata.
4			Percent of Dominant Species
5			That Are OBL, FACW, or FAC:100.0% (A/B)
6			Prevalence Index worksheet:
	0 = Total Co	over	
50% of total cover: 0	20% of total cove	er:0	Total % Cover of: Multiply by:
Sapling Stratum (Plot size: 30 ft)			OBL species55 x 1 =55
1			FACW species30 x 2 =60
			FAC species0 x 3 =0
2			FACU species 0 x 4 = 0
3			UPL species0 x 5 =0
4			
5			Column Totals: <u>85</u> (A) <u>115</u> (B)
6			Prevalence Index = B/A =1.35
	0 = Total Co	over	Hydrophytic Vegetation Indicators:
50% of total cover:0	20% of total cove	er:0	x 1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft)			x 2 - Dominance Test is >50%
1			$\frac{x}{3}$ 3 - Prevalence Index is $\le 3.0^{1}$
2.			<u> </u>
			Problematic Hydrophytic Vegetation¹ (Explain)
3			
4			Indicators of hydric soil and wetland hydrology must
5			be present, unless disturbed or problematic.
6			Definitions of Five Vegetation Strata:
	0 = Total Co	over	Tree – Woody plants, excluding woody vines,
50% of total cover: 0	20% of total cove	er:0	approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: 30 ft)			(7.6 cm) or larger in diameter at breast height (DBH).
1. Arundinaria tecta, Switch Cane	30Yes	FACW	Sanling Weeds plants evaluding weeds vines
Eleocharis palustris, Common Spike-Rush			Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
Juncus effusus, Lamp Rush			than 3 in. (7.6 cm) DBH.
			Should Microbiolists and discount of the control of
4. Solidago sp.			Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
5. Osmunda spectabilis, Royal Fern	5No	OBL_	approximatory of to 20 ft (1 to 0 fm) in neight.
6			Herb – All herbaceous (non-woody) plants, including
7			herbaceous vines, regardless of size, and woody
8			plants, except woody vines, less than approximately 3 ft (1 m) in height.
9.			o a (1 m) an noight.
			Woody vine - All woody vines, regardless of height.
10			
11			
	90 = Total Co	over	
50% of total cover: 45	20% of total cove	er: <u>18</u>	
Woody Vine Stratum (Plot size: 30 ft)			
1			
2.			
3			
4		- —	
5		- ——	Hydrophytic
	0 = Total Co	over	Vegetation
50% of total cover: 0	20% of total cove	er: <u> 0 </u>	Liezeurt iez v MO
Remarks: (If observed, list morphological adaptations belo	w).		1

Sampling Point: EF W 009

SOIL Sampling Point: EF W 009

Profile Des	cription: (Describe t	o the dep	th needed to docum	nent the i	ndicator	or confirm	the absence of	findicators.)
Depth (inches)	Matrix Color (moist)	%	Redox	x Features %	Type ¹	Loc ²	Texture	Remarks
0-3	10yr 4/2	95%	10yr 3/6	5%	C	PL	Clay	Nomano
3-6	10yr 5/2		7.5yr 5/6	5%		PL	Loamy Clay	
6-18	10yr 5/2	70%	7.5yr 5/6	30%		PL	Loamy Clay	
	10 1 3/2	7070	7.541 5/0				Loanly Clay	
	oncentration, D=Depl Indicators: (Applica					ins.		L=Pore Lining, M=Matrix. or Problematic Hydric Soils ³ :
Histoso		able to all	Polyvalue Bel			PPSTI		ck (A9) (LRR O)
ı —	pipedon (A2)		Thin Dark Sui					ck (A10) (LRR S)
_	istic (A3)		Loamy Mucky	y Mineral ((F1) (LRR	O)		Vertic (F18) (outside MLRA 150A,B)
_ · ·	en Sulfide (A4)		Loamy Gleye		F2)			t Floodplain Soils (F19) (LRR P, S, T)
ı —	d Layers (A5) : Bodies (A6) (LRR P,	T II)	_x Depleted Mat _ Redox Dark S		(S)		Anomalo (MLRA	us Bright Loamy Soils (F20)
	ucky Mineral (A7) (LR			,	,		,	ent Material (TF2)
	resence (A8) (LRR U)		Redox Depre					allow Dark Surface (TF12)
_	uck (A9) (LRR P, T)		Marl (F10) (L	,			Other (E)	xplain in Remarks)
I — ·	d Below Dark Surface ark Surface (A12)	e (A11)	Depleted Och Iron-Mangane	. ,			T) ³ Indicat	ors of hydrophytic vegetation and
_	rairie Redox (A16) (M	ILRA 150					•	nd hydrology must be present,
	Mucky Mineral (S1) (L		Delta Ochric (, ,	-,		s disturbed or problematic.
	Gleyed Matrix (S4)		Reduced Vert					
ı —	Redox (S5) d Matrix (S6)		Piedmont Flo				9A) A 149A, 153C, 1	530)
ı 	irface (S7) (LRR P, S	. T. U)	Allollialous B	rigiit Loai	rry Solis (F	20) (WILK	A 143A, 133C, 1	330)
	Layer (if observed):	, -, -,						
Туре:								
Depth (in	ches):						Hydric Soil Pi	resent? Yes <u>x</u> No
Remarks:							•	

Date: <u>5/5/21</u>







Photograph Direction SE

Comments:

Photograph Direction SW

Comments:





Photograph Direction NE

Comments:

Photograph Direction NW

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Dominion CVOW	City/County: Virgin	ia Beach/Virginia Beach	Sampling Date:	5/14/2021
Applicant/Owner: Dominion		State: VA	Sampling Point: Ef	F_W_013
Investigator(s): Emily Foster, Debbie Painter				
Landform (hillslope, terrace, etc.): Flat				(%): 3-5
Subregion (LRR or MLRA): MLRA 153B of LRR T Lat:				
Soil Map Unit Name:				
Are climatic / hydrologic conditions on the site typical for this time of ye				
Are Vegetationx, Soilx, or Hydrologyx significantly		Are "Normal Circumstances" p		No
Are Vegetation, Soil, or Hydrology naturally pr	•	If needed, explain any answe		140
			,	
SUMMARY OF FINDINGS – Attach site map showing	g sampling poli	it locations, transects	, important lea	itures, etc.
Hydrophytic Vegetation Present? Yesx No		oled Area		
Hydric Soil Present? Yesx No	within a We		No	
Wetland Hydrology Present? Yesx No				
Remarks:			Observed Classifi	cations:
Wet meadow in powerline easement			Cowardin: PEM	
HYDROLOGY				
Wetland Hydrology Indicators:		Secondary Indica	tors (minimum of tw	vo required)
Primary Indicators (minimum of one is required; check all that apply)		x Surface Soil	Cracks (B6)	
Surface Water (A1) Aquatic Fauna (B1			getated Concave Su	urface (B8)
High Water Table (A2) Marl Deposits (B19)		Drainage Par	-	doc (20)
x Saturation (A3) Hydrogen Sulfide (Moss Trim Li		
Water Marks (B1) Oxidized Rhizosph		_	Water Table (C2)	
× Sediment Deposits (B2) Presence of Redu		x Crayfish Buri		
Drift Deposits (B3) Recent Iron Reduc	. ,		sible on Aerial Imag	nery (C9)
Algal Mat or Crust (B4) Thin Muck Surface			Position (D2)	JCI Y (CO)
Iron Deposits (B5) Other (Explain in F		Shallow Aqui	, ,	
Indit Deposits (Explain III) Out of (Explain III) Inundation Visible on Aerial Imagery (B7)	(ornario)	FAC-Neutral		
Water-Stained Leaves (B9)			noss (D8) (LRR T, L	n l
Field Observations:	Т	Opinagriani ii	1000 (20) (21111 1, 0	-
Surface Water Present? Yes No _x _ Depth (inches	z)·			
Water Table Present? Yes Nox Depth (inches				
		Motland Undualant Duacan	42 Van Y	
Saturation Present? Yesx No Depth (inches (includes capillary fringe)	5): 0	Wetland Hydrology Presen	ir res	No
Describe Recorded Data (stream gauge, monitoring well, aerial phot	os, previous inspect	ions), if available:		
Remarks:				

VEGETATION ((Five Strata)	– Use s	scientific	names of	plants
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		Dominant		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30 ft</u>)	% Cover	Species?	Status	Number of Dominant Species
				That Are OBL, FACW, or FAC:1 (A)
2				Total Number of Dominant
3				Species Across All Strata:2 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:50.0% (A/B)
6				Prevalence Index worksheet:
		= Total Co		Total % Cover of:Multiply by:
50% of total cover: 0	20% of	total cover	:0	OBL species35 x 1 =35
Sapling Stratum (Plot size: 30 ft)				FACW species 40 x 2 = 80
1				FAC species 0 x 3 = 0
2				FACU species 30 x 4 = 120
3				UPL species 0 x 5 = 0
4				Column Totals: 105 (A) 235 (B)
5				Coldinii Totals. <u>193</u> (A) <u>233</u> (B)
6				Prevalence Index = B/A =2.24
50% of total cover: 0		= Total Cov		Hydrophytic Vegetation Indicators:
Shrub Stratum (Plot size: 30 ft)	20% 01	total cover		1 - Rapid Test for Hydrophytic Vegetation
				2 - Dominance Test is >50%
1				x 3 - Prevalence Index is ≤3.0 ¹
2				Problematic Hydrophytic Vegetation ¹ (Explain)
3				
4				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5				Definitions of Five Vegetation Strata:
6		= Total Cov		Definitions of Five Vegetation Strata.
50% of total cover: 0				Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: 30 ft)	20 /0 01	total cover		(7.6 cm) or larger in diameter at breast height (DBH).
1. Solidago gigantea, Late Goldenrod	40	Vec	FACW	
Cirsium vulgare, Bull Thistle			FACU	Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
Juncus effusus, Lamp Rush	20			than 3 in. (7.6 cm) DBH.
4. Eleocharis obtusa, Blunt Spike-Rush				Shrub – Woody plants, excluding woody vines,
Scirpus atrovirens, Dark-Green Bulrush			OBL	approximately 3 to 20 ft (1 to 6 m) in height.
6. Carex lurida, Shallow Sedge		No	OBL	Herb - All herbaceous (non-woody) plants, including
7				herbaceous vines, regardless of size, and woody
8.				plants, except woody vines, less than approximately 3 ft (1 m) in height.
9				3 it (1 iii) iii neight.
10				Woody vine - All woody vines, regardless of height.
11.				
		= Total Cov		
50% of total cover: 52.5				
Woody Vine Stratum (Plot size: 30 ft)				
1				
2.				
3				
4				
5				Hydrophytia
		= Total Cov	/er	Hydrophytic Vegetation
50% of total cover: 0				Present? Yes <u>×</u> No
Remarks: (If observed, list morphological adaptations belo			. <u> </u>	
	·· /·			

Sampling Point: EF W 013

SOIL Sampling Point: EF W 013

Depth	Matrix	to the dep		x Features		or commi	n the absence of ind	iicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-6	10yr 3/2	100%					Silty clay loam		
6-10	10yr 4/2	70%	7.5yr 4/6	30%			Silty clay loam		
10-16	10yr 4/2	60%	7.5yr 5/6	40%			Silty clay loam		
¹ Type: C=C	concentration, D=Dep	letion, RM=	Reduced Matrix, M	S=Masked	Sand Gr	ains.	² Location: PL=P	ore Lining, M=Matrix.	
Hydric Soil	Indicators: (Applic	able to all	LRRs, unless othe	rwise note	ed.)		Indicators for Pr	oblematic Hydric Solls ³ :	
Histoso	` '		Polyvalue Be				· —		
	pipedon (A2) listic (A3)		Thin Dark Su Loamy Muck	, ,				410) (LRR S) tic (F18) (outside MLRA 150<i>l</i>	4 B)
l 	en Sulfide (A4)		Loamy Gleye	-		. 0,		oodplain Soils (F19) (LRR P, S	
	d Layers (A5)		x Depleted Ma		·		Anomalous E	Bright Loamy Soils (F20)	
	Bodies (A6) (LRR P		Redox Dark	,	,		(MLRA 153		
	ucky Mineral (A7) (Lf resence (A8) (LRR U		Depleted Da Redox Depre					Material (TF2) Dark Surface (TF12)	
i	uck (A9) (LRR P, T)	,	Marl (F10) (L	,	3)			in in Remarks)	
ı —	d Below Dark Surfac	e (A11)	Depleted Oc	-	(MLRA 1	51)	_ ` .	,	
	ark Surface (A12)		Iron-Mangan		. , .		•	of hydrophytic vegetation and	
I	Prairie Redox (A16) (F Mucky Mineral (S1) (I		A) Umbric Surfa Delta Ochric			, U)		ydrology must be present, sturbed or problematic.	
	Gleyed Matrix (S4)	-KK O, O,	Reduced Ve			0A, 150B		starbed of problematic.	
	Redox (S5)		Piedmont Flo						
	d Matrix (S6)		Anomalous E	Bright Loar	ny Soils (F20) (MLF	RA 149A, 153C, 153D))	
	urface (S7) (LRR P, S Layer (if observed):								
	Layer (II observeu).								
	nches):						Hydric Soil Prese	ent? Yes ^x No	
Remarks:							1 .,		

Date: <u>5/14/21</u>







Photograph Direction North

Comments:

Photograph Direction South

Comments:





Photograph Direction West

Comments:

Photograph Direction East

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Applicant/Owner: Dominion State: VA Sampling Point: EF W 013 UP nivestigator(s): Emily Foster, Debbie Painter Section, Township, Range: Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): Convex Slope (%): 3-5 Subtregion (LRR or MLRA): MLRA 1538 of LRRT Lat: 36.770597 Long: -76.064658 Datum: WGS84 Subtregion (LRR or MLRA): MLRA 1538 of LRRT Vere Vegetation NVI classification: Vere Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes x No Vere Vegetation SumMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No x Wetland Hydrology Present? Yes No x Wetland Hydrology Present? Yes No x Wetland Hydrology Indicators: Upland forest adjacent to powerline easement. **Observed Classifications:** Cowardin: unland **Upland Fabre (A2) Surface Soil Cracks (B6) Surface Water (A3) Hydrogen Sulfide Odor (C1) Saturation (A3) Hydrogen Sulfide Odor (C1) Saturation (A3) Water Marks (B1) Surface Soil Cracks (B3) Primary Indicators (minimum of one is required: check all that apply) Surface Soil Cracks (B6) Surface Soil Crac
Local relief (concave, convex, none): Convex Slope (%): 3-5 Subregion (LRR or MLRA): MLRA 1538 of LRR T
Local relief (concave, convex, none): Convex Slope (%): 3-5 Subregion (LRR or MLRA): MLRA 1538 of LRR T
Subregion (LRR or MLRA): MLRA 153B of LRRT
Soil Map Unit Name:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No (If no, explain in Remarks.) Are Vegetation, Soil, or Hydrology significantly disturbed?
Are Vegetation, Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yesx No
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present?
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No Wetland Hydrology Present? Yes No Remarks: Upland forest adjacent to powerline easement. HYDROLOGY Wetland Hydrology Indicators:
Hydrophytic Vegetation Present? Yes No Wetland Hydrology Present? Yes No X
Hydrophytic Vegetation Present? Yes No Wetland Hydrology Present? Yes No X
Hydric Soil Present? Wetland Hydrology Present? Wetland Hydrology Present? Wetland Frest adjacent to powerline easement. HYDROLOGY Wetland Hydrology Indicators: Upland forest adjacent to powerline easement. Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) Aquatic Fauna (B13) Sparsely Vegetated Concave Surface (B8) High Water Table (A2) Marl Deposits (B15) (LRR U) Saturation (A3) Hydrogen Sulfide Odor (C1) Water Marks (B1) Oxidized Rhizospheres along Living Roots (C3) Sediment Deposits (B2) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Thin Muck Surface (C7) Geomorphic Position (D2) Iron Deposits (B5) Other (Explain in Remarks) Spansely Vegetated Concave Surface (B8) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Iron Deposits (B5) Other (Explain in Remarks) Spansely Vegetated Concave Surface (B8) FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U) Fleld Observations:
Wetland Hydrology Present? Yes No X Remarks: Upland forest adjacent to powerline easement.
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) High Water Table (A2) High Water Table (A2) Hydrogen Sulfide Odor (C1) Saturation (A3) Hydrogen Sulfide Odor (C1) Saturation (A3) Hydrogen Sulfide Odor (C1) Sediment Deposits (B1) Sediment Deposits (B2) Presence of Reduced Iron (C4) Sprit Deposits (B3) Recent Iron Reduction in Tilled Soils (C6) Algal Mat or Crust (B4) Hind Muck Surface (C7) Geomorphic Position (D2) Iron Deposits (B5) Iron Deposits (B5) Shallow Aquitard (D3) Field Observations:
HYDROLOGY Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) Aquatic Fauna (B13) Sparsely Vegetated Concave Surface (B8) High Water Table (A2) Marl Deposits (B15) (LRR U) Drainage Patterns (B10) Saturation (A3) Hydrogen Sulfide Odor (C1) Moss Trim Lines (B16) Saturation (A3) Hydrogen Sulfide Odor (C1) Moss Trim Lines (B16) Sediment Deposits (B1) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Sediment Deposits (B2) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Drift Deposits (B3) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Thin Muck Surface (C7) Geomorphic Position (D2) Iron Deposits (B5) Other (Explain in Remarks) Shallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Sphagnum moss (D8) (LRR T, U) Field Observations:
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) Aquatic Fauna (B13) High Water Table (A2) Marl Deposits (B15) (LRR U) Saturation (A3) Hydrogen Sulfide Odor (C1) Water Marks (B1) Sediment Deposits (B2) Presence of Reduced Iron (C4) Drift Deposits (B3) Recent Iron Reduction in Tilled Soils (C6) Algal Mat or Crust (B4) Thin Muck Surface (C7) Geomorphic Position (D2) Iron Deposits (B5) Other (Explain in Remarks) Sphagnum moss (D8) (LRR T, U) Field Observations:
Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) Aquatic Fauna (B13) Sparsely Vegetated Concave Surface (B8) High Water Table (A2) Marl Deposits (B15) (LRR U) Drainage Patterns (B10) Saturation (A3) Hydrogen Sulfide Odor (C1) Moss Trim Lines (B16) Water Marks (B1) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Sediment Deposits (B2) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Drift Deposits (B3) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Thin Muck Surface (C7) Geomorphic Position (D2) Iron Deposits (B5) Other (Explain in Remarks) Shallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) FAC-Neutral Test (D5) Water-Stained Leaves (B9) Sphagnum moss (D8) (LRR T, U)
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Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) Aquatic Fauna (B13) Sparsely Vegetated Concave Surface (B8) High Water Table (A2) Marl Deposits (B15) (LRR U) Drainage Patterns (B10) Saturation (A3) Hydrogen Sulfide Odor (C1) Moss Trim Lines (B16) Water Marks (B1) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Sediment Deposits (B2) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Drift Deposits (B3) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Thin Muck Surface (C7) Geomorphic Position (D2) Inon Deposits (B5) Other (Explain in Remarks) Shallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) FAC-Neutral Test (D5) Water-Stained Leaves (B9) Sphagnum moss (D8) (LRR T, U)
Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) Aquatic Fauna (B13) Sparsely Vegetated Concave Surface (B8) High Water Table (A2) Marl Deposits (B15) (LRR U) Drainage Patterns (B10) Saturation (A3) Hydrogen Sulfide Odor (C1) Moss Trim Lines (B16) Water Marks (B1) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Sediment Deposits (B2) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Drift Deposits (B3) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Thin Muck Surface (C7) Geomorphic Position (D2) Inon Deposits (B5) Other (Explain in Remarks) Shallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) FAC-Neutral Test (D5) Water-Stained Leaves (B9) Sphagnum moss (D8) (LRR T, U)
Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) High Water Table (A2) Marl Deposits (B15) (LRR U) 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) Field Observations: Surface Soil Cracks (B6) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U) Field Observations:
Surface Water (A1)
High Water Table (A2)
Saturation (A3) Hydrogen Sulfide Odor (C1) Moss Trim Lines (B16) Water Marks (B1) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Sediment Deposits (B2) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Drift Deposits (B3) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Thin Muck Surface (C7) Geomorphic Position (D2) Iron Deposits (B5) Other (Explain in Remarks) Shallow Aquitard (D3) FAC-Neutral Test (D5) Water-Stained Leaves (B9) Sphagnum moss (D8) (LRR T, U) Sphagnum moss (D8) (LRR T, U)
Water Marks (B1)
Sediment Deposits (B2)
Drift Deposits (B3) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Thin Muck Surface (C7) Geomorphic Position (D2) Iron Deposits (B5) Other (Explain in Remarks) Shallow Aquitard (D3) FAC-Neutral Test (D5) Water-Stained Leaves (B9) Sphagnum moss (D8) (LRR T, U) Field Observations:
Algal Mat or Crust (B4) Thin Muck Surface (C7) Geomorphic Position (D2) Iron Deposits (B5) Other (Explain in Remarks) Shallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Sphagnum moss (D8) (LRR T, U) Field Observations:
Iron Deposits (B5) Other (Explain in Remarks) Shallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) FAC-Neutral Test (D5) Water-Stained Leaves (B9) Sphagnum moss (D8) (LRR T, U) Field Observations:
Inundation Visible on Aerial Imagery (B7)
Water-Stained Leaves (B9) Sphagnum moss (D8) (LRR T, U) Field Observations:
Field Observations:
Surface Water Present? Yes No _x Depth (inches):
Water Table Present? Yes No _x Depth (inches):
Saturation Present? Yes No x Depth (inches): Wetland Hydrology Present? Yes No x
(includes capillary fringe)
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Don't des
Remarks:
I I

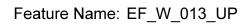
20.5		Dominant		Dominance Test worksheet:	
Tree Stratum (Plot size: 30 ft)		Species?		Number of Dominant Species	
1. Acer rubrum, Red Maple				That Are OBL, FACW, or FAC: 7 (A	7)
Liquidambar styraciflua, Sweet-Gum				Total Number of Dominant	
3. Quercus rubra, Northern Red Oak	20	Yes	FACU	Species Across All Strata: 9 (B	3)
4. Pinus taeda, Loblolly Pine	15	<u>No</u>	FAC	Percent of Dominant Species	
5				That Are OBL, FACW, or FAC:77.8%(A	VB)
6					,
		= Total Co	/er	Prevalence Index worksheet:	
50% of total cover: 47.5	,			Total % Cover of: Multiply by:	
Sapling Stratum (Plot size: 30 ft)		1 (0(0) 0000)		OBL species0 x 1 =0	
	1 5	Voc	EAC	FACW species5 x 2 =10	
				FAC species106 x 3 =318	
2. Morella cerifera, Southern Bayberry				FACU species 20 x 4 = 80	
3				UPL species0 x 5 =0	
4				Column Totals: (A) (A) (A) (A) (A) (A) (A) (A) (A) (A)	/D\
5				Column Totals (A) (A)	(0)
6				Prevalence Index = B/A =3.11	
		= Total Co	/er	Hydrophytic Vegetation Indicators:	
50% of total cover:10.5	20% o	f total cover	: 4.2		
Shrub Stratum (Plot size: 30 ft)			-	1 - Rapid Test for Hydrophytic Vegetation	
				X 2 - Dominance Test is >50%	
1				3 - Prevalence Index is ≤3.0 ¹	
2				Problematic Hydrophytic Vegetation¹ (Explain)	
3					
4				¹ Indicators of hydric soil and wetland hydrology mus	st
5				be present, unless disturbed or problematic.	
6				Definitions of Five Vegetation Strata:	
	0	= Total Cov	/er	Tree – Woody plants, excluding woody vines,	
50% of total cover:0	20% o	f total cover	: 0	approximately 20 ft (6 m) or more in height and 3 in.	
Herb Stratum (Plot size: 30 ft)				(7.6 cm) or larger in diameter at breast height (DBH)	
Echinochloa crus-galli, Large Barnyard Grass	5	Yes	FΔCW	See the sea Market and the second of the sec	
0 6		Yes		Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less	ì
				than 3 in. (7.6 cm) DBH.	
3. Pinus taeda, Loblolly Pine		Yes			
4				Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.	
5				approximately 3 to 20 it (1 to 0 iii) iii neight.	
6				Herb - All herbaceous (non-woody) plants, including	g
7				herbaceous vines, regardless of size, <u>and</u> woody plants, except woody vines, less than approximately	
8				3 ft (1 m) in height.	y
9					
10				Woody vine – All woody vines, regardless of height	t.
11.					
	15	= Total Cov			
500/ official course. 7.5					
50% of total cover:	20% 6	r total cover	:3		
Woody Vine Stratum (Plot size: 30 ft)					
1. Smilax rotundifolia, Horsebrier		Yes			
2					
3					
4					
5				Hydrophytic	
	_	= Total Cov	_ /er	Vegetation	
50% of total cover: <u>2.5</u>				Present? Yesx No	
Remarks: (If observed, list morphological adaptations belo		50001	-	1	
Tremarks. (II observed, list morphological adaptations belo	νν).				
1					

SOIL Sampling Point: EF W 013 UP

	cription: (Describe t	to the dept				or confirm	the absence of i	ndicators.)		
Depth (inches)	Matrix Color (moist)		Redo Color (moist)	<u>x Features</u> %	s Type ¹	Loc ²	Texture	Remarks		
0-6	2.5y 5/8	100%					Sandy Ioam	Nomano	_	
6-12	10yr 4/1		10yr 5/6	20%						
							Sandy loam			
12-16	10yr 4/1	75%	10yr 5/3				Silty clay loam			

¹ Type: C=C	oncentration, D=Depl	etion, RM=	Reduced Matrix, M	S=Masked	Sand Gr	ains.	² Location: PL:	=Pore Lining, M=Mat	rix.	
Hydric Soil	indicators: (Applica	able to all l						Problematic Hydric	: Soils³:	
Histosol	• /		Polyvalue Be				· —	(A9) (LRR O)		
	pipedon (A2) istic (A3)		Thin Dark Su Loamy Muck	, ,	. ,			((A10) (LRR S) /ertic (E18) (cutside	MIRA 150A R)	
l ——	en Sulfide (A4)		Loamy Gleye	-		. 0,	Reduced Vertic (F18) (outside MLRA 150A,B) Piedmont Floodplain Soils (F19) (LRR P, S, T)			
Stratifie	d Layers (A5)		× Depleted Ma		,		Anomalous	s Bright Loamy Soils	(F20)	
	Bodies (A6) (LRR P,		Redox Dark				•	(MLRA 153B)		
	ucky Mineral (A7) (LR		Depleted Da				Red Parent Material (TF2) Very Shallow Dark Surface (TF12)			
I —	resence (A8) (LRR U uck (A9) (LRR P, T)	,	Redox Depre Marl (F10) (L	•	0)			ow Dark Sunace (TF blain in Remarks)	12)	
I —	d Below Dark Surface	e (A11)	Depleted Oc	-	(MLRA 1	51)	011101 (EXP	nam m remane,		
	ark Surface (A12)		Iron-Mangan	ese Mass	es (F12) (LRR O, P,	T) ³ Indicator	s of hydrophytic veg	etation and	
I	rairie Redox (A16) (N					, U)		hydrology must be p		
	Mucky Mineral (S1) (L Gleyed Matrix (S4)	.RR O, S)	Delta Ochric Reduced Ver			NA 450E\		disturbed or problem	atic.	
	Redox (S5)		Piedmont Flo							
	Matrix (S6)		_			•	A 149A, 153C, 15	3D)		
	rface (S7) (LRR P, S	, T, U)								
Restrictive	Layer (if observed):									
Type:			_						v	
Depth (in	ches):						Hydric Soil Pre	sent? Yes	No×	
Remarks:	مانه میا مامس									
Very dry cr	umbly solls.									

Date: 5/14/21







Photograph Direction West

Comments:

Photograph Direction East

Comments:





Photograph Direction South

Comments:

Photograph Direction North

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Dominion CVOW	City/County: Virgin	ia Beach/Virginia Beach	Sampling Date: 5/19/2021			
Applicant/Owner: Dominion		State: <u>VA</u>	Sampling Point: Jcros W 010			
Investigator(s): J. Crosby, M. Buckalew Section, Township, Range:						
Landform (hillslope, terrace, etc.): Depression						
Subregion (LRR or MLRA): MLRA 153B of LRR T Lat:	36.770092	2 Long:	-76.060636 Datum: WGS84			
Soil Map Unit Name: 38 - Tomotley loam						
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yesx N	o (If no, explain in F	Remarks.)			
Are Vegetation, Soil, or Hydrology significantly						
Are Vegetation, Soil, or Hydrology naturally pr		f needed, explain any answe				
SUMMARY OF FINDINGS – Attach site map showing		t locations, transects	, important features, etc.			
Hydrophytic Vegetation Present? Yesx No Hydric Soil Present? Yesx No Wetland Hydrology Present? Yesx No	- Is the Samb		No			
Remarks:	·		Observed Classifications: Cowardin:			
HYDROLOGY						
Wetland Hydrology Indicators:		Secondary Indica	ators (minimum of two required)			
Primary Indicators (minimum of one is required; check all that apply))	Surface Soil Cracks (B6)				
Surface Water (A1) Aquatic Fauna (B1	13)	Sparsely Vegetated Concave Surface (B8)				
High Water Table (A2) Marl Deposits (B1		_x_ Drainage Pa	tterns (B10)			
Saturation (A3) Hydrogen Sulfide	Odor (C1)	Moss Trim Lines (B16)				
Water Marks (B1) Oxidized Rhizosph	heres along Living Ro	· / — /	Water Table (C2)			
Sediment Deposits (B2) Presence of Redu	, ,	_x_ Crayfish Burrows (C8)				
Drift Deposits (B3) Recent Iron Reduc	ction in Tilled Soils (C					
Algal Mat or Crust (B4) Thin Muck Surface	e (C7)	_x Geomorphic	Position (D2)			
Iron Deposits (B5) Other (Explain in F	Remarks)	Shallow Aqu	. ,			
Inundation Visible on Aerial Imagery (B7)		_x_ FAC-Neutral	Test (D5)			
Water-Stained Leaves (B9)		Sphagnum r	noss (D8) (LRR T, U)			
Field Observations:						
Surface Water Present? Yes No _x Depth (inches						
Water Table Present? Yes No _x Depth (inches	es):					
Saturation Present? Yes No _x Depth (inches (includes capillary fringe)	s): Wetland Hydrology Present? Yesx No					
Describe Recorded Data (stream gauge, monitoring well, aerial phot	tos, previous inspecti	ons), if available:				
Remarks:						
H			H			

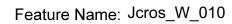
_	Absolute Dominant Indicator	Dominance Test worksheet:			
Tree Stratum (Plot size: 30 ft)	% Cover Species? Status	Number of Dominant Species			
Pinus taeda, Loblolly Pine	40YesFAC	That Are OBL, FACW, or FAC:4 (A)			
2. Acer rubrum, Red Maple	<u>25</u> <u>Yes</u> <u>FAC</u>	Total Number of Dominant			
3. <u>Liquidambar styraciflua, Sweet-Gum</u>	15NoFAC	Species Across All Strata: 4 (B)			
4					
5		Percent of Dominant Species That Are OBL_FACW_or FAC: 100.0% (A/B)			
6		That Are OBL, FACW, or FAC: 100.0% (A/B)			
0.		Prevalence Index worksheet:			
500/ -54-4-1 40		Total % Cover of: Multiply by:			
	20% of total cover:16	OBL species 40 x 1 = 40			
Sapling Stratum (Plot size: 30 ft)		FACW species 0 x 2 = 0			
1. <u>N/A</u>		FAC species x2 =			
2		FACU species 0 x 4 = 0			
3					
4		UPL species 0 x 5 = 0			
5		Column Totals:120 (A)280 (B)			
6.		Prevalence Index = B/A =2.33			
	0 = Total Cover	Hydrophytic Vegetation Indicators:			
50% of total cover: 0	20% of total cover:0				
Shrub Stratum (Plot size: 30 ft)		1 - Rapid Test for Hydrophytic Vegetation x 2 - Dominance Test is >50%			
1. <u>N/A</u>					
		X 3 - Prevalence Index is ≤3.01			
2		Problematic Hydrophytic Vegetation¹ (Explain)			
3					
4		¹ Indicators of hydric soil and wetland hydrology must			
5		be present, unless disturbed or problematic.			
6		Definitions of Five Vegetation Strata:			
	0 = Total Cover	Tree – Woody plants, excluding woody vines,			
50% of total cover:0	20% of total cover: 0	approximately 20 ft (6 m) or more in height and 3 in.			
Herb Stratum (Plot size: 30 ft)		(7.6 cm) or larger in diameter at breast height (DBH).			
1. Woodwardia areolata, Netted Chain Fern	30 Yes OBI	Sanling Woody plants evaluding woody vines			
Osmunda spectabilis, Royal Fern		Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less			
		than 3 in. (7.6 cm) DBH.			
3		Shrub Woody plants, avaluding woody vines			
4		Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.			
5					
6		Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody			
7		plants, except woody vines, less than approximately			
8		3 ft (1 m) in height.			
9		Woody vine – All woody vines, regardless of height.			
10		woody ville - All woody villes, regardless of height.			
11					
	40 = Total Cover				
50% of total cover: 20	20% of total cover: 8				
Woody Vine Stratum (Plot size: 30 ft)					
1. N/A					
2					
3					
4					
5		Hydrophytic			
	0 = Total Cover	Vegetation Present? Yes × No			
50% of total cover: 0	20% of total cover:0_	Present? Yes No			
Remarks: (If observed, list morphological adaptations belo	w).	•			

Sampling Point: Jcros W 010

SOIL Sampling Point: <u>Jcros W 010</u>

Profile Des	cription: (Describe	to the depth r	needed to docu	ment the i	ndicator	or confirm	the absence o	of indicators.)	
Depth	Matrix			ox Features		. 2			
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks	
0-20	10YR 5/1	90% 2.5	SR 5/4	10%	C	PL	Loam		
¹ Type: C=C	oncentration, D=Dep	oletion RM=Re	duced Matrix M	S=Masked	Sand Gr	ains	2l ocation: I	PL=Pore Lining, M=Matrix.	
	Indicators: (Applic					w		for Problematic Hydric Soils ³ :	
Histoso			Polyvalue Be			.RR S. T. U		uck (A9) (LRR O)	
	pipedon (A2)	_	Thin Dark S				· · · · · · · · · · · · · · · · · · ·	uck (A10) (LRR S)	
Black H	istic (A3)		Loamy Muck				Reduced Vertic (F18) (outside MLRA 150A,B)		
Hydrog	en Sulfide (A4)		Loamy Gley	ed Matrix (I	F2)		Piedmont Floodplain Soils (F19) (LRR P, S, T)		
_	d Layers (A5)	-	x Depleted Ma	, ,			Anomalous Bright Loamy Soils (F20)		
_ ~	Bodies (A6) (LRR F		Redox Dark	,	,		•	A 153B)	
ı —	ucky Mineral (A7) (LI		Depleted Da				Red Parent Material (TF2)		
ı —	resence (A8) (LRR L	י) .	Redox Depression Marl (F10) (I		3)		Very Shallow Dark Surface (TF12)		
	uck (A9) (LRR P, T) d Below Dark Surfac	- -e (Δ11)	Depleted Oc	•	MIRA 1	51)	Other (E	Explain in Remarks)	
I — ·	ark Surface (A12)	(ス11)	Iron-Mangar	, ,	•	,	T) ³ Indica	ators of hydrophytic vegetation and	
ı —	Prairie Redox (A16) (I	VILRA 150A)	Umbric Surfa				•	and hydrology must be present,	
ı —	Mucky Mineral (S1) (Delta Ochric	(F17) (ML	RA 151)	,		ss disturbed or problematic.	
Sandy	Gleyed Matrix (S4)		Reduced Ve	rtic (F18) (I	MLRA 15	60A, 150B)			
Sandy i	Redox (S5)		Piedmont Fl						
	d Matrix (S6)	-	Anomalous I	Bright Loan	ny Soils (F20) (MLR	A 149A, 153C,	153D)	
	urface (S7) (LRR P, \$						T		
_	Layer (if observed)								
			-						
Depth (ir	iches):		_				Hydric Soil F	Present? Yes <u>x</u> No	
Remarks:									

Date: 5/19/21







Photograph Direction East

Comments:

Photograph Direction North

Comments:





Photograph Direction South

Comments:

Photograph Direction West

Project/Site: Dominion CVOW	I		City/County: Virgin	nia Beach/Virginia Beach	Sampling Date:5/19/2021
Applicant/Owner: Dominion				State: VA	Sampling Point: Jcros W 010 UF
Investigator(s): J. Crosby, M. E	Buckalew		Section, Township	, Range:	
					Slope (%): 5
					-76.0608378 Datum: WGS84
Soil Map Unit Name: 38 - Tomot					cation: N/A
Are climatic / hydrologic conditi					
	-				
					present? Yesx No
Are Vegetation, Soil	, or Hydrolog	y naturally p	roblematic?	(If needed, explain any answ	ers in Remarks.)
SUMMARY OF FINDING	SS – Attach s	ite map showin	g sampling poi	nt locations, transect	s, important features, etc.
Hydrophytic Vegetation Prese	ant? Vec	x No			
Hydric Soil Present?		Nox	is the Sain	•	
Wetland Hydrology Present?		Nox	within a W	etland? Yes	No×
Remarks:			-		Observed Classifications:
					Cowardin:
					cowardin.
HYDROLOGY					
Wetland Hydrology Indicato	ore:			Secondary Indic	eators (minimum of two required)
Primary Indicators (minimum		: check all that apply)	١		
Surface Water (A1)	or one is required	Aquatic Fauna (B			egetated Concave Surface (B8)
High Water Table (A2)	-	Aquatic Fauria (B Marl Deposits (B1	,	Drainage P	
Saturation (A3)	-	Hydrogen Sulfide		Moss Trim	
Water Marks (B1)	-		heres along Living F		Water Table (C2)
Sediment Deposits (B2)	-	_ Presence of Redu		Crayfish Bu	
Drift Deposits (B3)	_		ction in Tilled Soils (/isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	_	Thin Muck Surface		Geomorphi	
Iron Deposits (B5)		Other (Explain in	Remarks)	Shallow Aq	
Inundation Visible on Aer	rial Imagery (B7)			FAC-Neutra	al Test (D5)
Water-Stained Leaves (B	39)			Sphagnum	moss (D8) (LRR T, U)
Field Observations:					
Surface Water Present?	Yes No	x Depth (inches	s):		
Water Table Present?	Yes No	x Depth (inches	s):		
Saturation Present?		x Depth (inches		Wetland Hydrology Prese	nt? Yes No×
(includes capillary fringe) Describe Recorded Data (stre	eam gauge monit	oring well aerial pho	tos previous inspec	tions) if available:	
Describe Necolded Data (Sile	sam gauge, mon	oning well, actial prior	tos, previous irispec	ions, ii available.	
Remarks:					
No hydrology indicators ob:	served				
ive riyareregy marcaters es.	serveu.				
					1

Times Stratum (Plot size 30 ft 1		Absolute	Dominant	Indicator	Dominance Test worksheet:
1. Pinus taceda, Lobiolly Pine	<u>Tree Stratum</u> (Plot size: <u>30 ft</u>)	% Cover	Species?	Status	Number of Dominant Species
2. Louidambar styracifulus_Sweet-Gum	1. Pinus taeda, Loblolly Pine	40	Yes	FAC	
3. Acer rubrum, Red Maple					
### Stratum (Plot size: 30 ft 100.0% (AB)					
5				1710	Species Across Air Strata.
Sacina Statum (Piot size: 30 ft 1					Percent of Dominant Species
Total Cover	5				That Are OBL, FACW, or FAC: 100.0% (A/B)
Total % Cover of Multiply by Saping Stratum (Plot size: 30 ft N/A	6				Durantamas Index yearlesheets
Sapiling Stratum (Plot size: 30 ft 1 1 1 1 2 2 3 1 1 1 1 2 3 3 3 3 3 3 3 3 3		<u>70</u> =	Total Cov	er	1
FACW species 0 x 2 = 0	50% of total cover: 35	20% of t	otal cover:	14	
1. N/A 2 3.	Sapling Stratum (Plot size: 30 ft)				
2					FACW species0 x 2 =0
## ACU species					FAC species90 x 3 =270
4					
Column Totals: 90 (A) 270 (B) Column Totals: 90 (A) 270 (B) Frevalence Index = BIA = 3.00 Frevalence Index = BIA = 1.00 Frevalence Index = BIA = 1.00 Frevalence Index = BIA = 1.00	3				
Prevalence Index = B/A =3.00	4				
Prevalence Index = B/A = 3.00					Column Totals: 90 (A) 270 (B)
Shrub Stratum (Plot size: 30 ft Shru					Prevalence Index - R/A - 3.00
Shrub Stratum (Plot size: 30 ft 1. Ni/A 2. 2. Dominance Test is >50%			Total Cov	er	
Shrub Stratum (Plot size: 30 ft 1. N/A	50% of total agrees:				1
1. N/A		20% 011	otal cover.		I —
2					X 2 - Dominance Test is >50%
3. 4. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5.	1. <u>N/A</u>				X 3 - Prevalence Index is ≤3.01
3. 4. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5.	2				Problematic Hydrophytic Vegetation ¹ (Explain)
4	3				
be present, unless disturbed or problematic. O = Total Cover					Indicators of hydric call and wattend hydrology must
Definitions of Five Vegetation Strata: Tree — Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).					
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). N/A					
Some of total cover: 0 20% of total co	b				Definitions of Five Vegetation Strata:
Herb Stratum (Plot size: 30 ft 1. N/A 2. 2. 3. 4. 3. 3. 4. 3. 3. 4. 4		=	Total Cov	er	Tree – Woody plants, excluding woody vines,
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 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. 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. Woody Vine - All woody vines, regardless of height. Woody Vine - All woody vines, regardless of height. Toxicodendron radicans, Eastern Poison Ivy	50% of total cover:0	20% of t	otal cover:	0	approximately 20 ft (6 m) or more in height and 3 in.
2	Herb Stratum (Plot size: 30 ft)				(7.6 cm) or larger in diameter at breast height (DBH).
2	1. N/A				Sanling - Woody plants, excluding woody vines
than 3 in. (7.6 cm) DBH. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.					
4					
5					.
6					
7	5				approximately 5 to 20 it (1 to 6 iii) iii fleight.
7	6				Herb - All herbaceous (non-woody) plants, including
8					
9					
10					Sit (1 iii) iii neigiit.
11					Woody vine - All woody vines, regardless of height.
	10				
50% of total cover: 0 20%	11				
Woody Vine Stratum (Plot size: 30 ft		=	Total Cov	er	
1. Toxicodendron radicans, Eastern Poison Ivy 2. Campsis radicans, Trumpet-Creeper 3. 4. 5.	50% of total cover:0_	20% of t	otal cover:	0	
1. Toxicodendron radicans, Eastern Poison Ivy 10 Yes FAC 2. Campsis radicans, Trumpet-Creeper 10 Yes FAC 3. 4.	Woody Vine Stratum (Plot size: 30 ft				
2. Campsis radicans, Trumpet-Creeper 10 Yes FAC 3		10	Vec	FΔC	
3	•				
4				FAC	
5	3				
= Total Cover	4				
= Total Cover	5				Hydrophytic
50% of total cover: 10 20% of total cover: 4 Present? Yes x No			Total Cov	er	
	50% of total cover: 10				
Remarks: (II observed, list morphological adaptations below).			Sai cover.	-	
	memarks: (If observed, list morphological adaptations belo	w).			

Sampling Point: Jcros W 010_UP

(inches)	Matrix Color (moist)		Redox F		Taytura	Domorko
			Color (moist)	% Type ¹ Loc ²	Texture	Remarks
0-20	10YR 4/2				Clay loam	
	-					
		. — —				
		:				
				Masked Sand Grains.		Pore Lining, M=Matrix.
_	ndicators: (Applica	able to all LKN				Problematic Hydric Soils ³ :
Histosol (_		Surface (S8) (LRR S, T, U)	· · · · · · · · · · · · · · · · · · ·	
	ipedon (A2)	_		ce (S9) (LRR S, T, U)		(A10) (LRR S)
Black His	, ,	_		lineral (F1) (LRR O)		ertic (F18) (outside MLRA 150A
	Sulfide (A4)	-	Loamy Gleyed N	, ,		loodplain Soils (F19) (LRR P, S,
	Layers (A5)		Depleted Matrix			Bright Loamy Soils (F20)
	Bodies (A6) (LRR P,		Redox Dark Sur	` '	(MLRA 1:	,
	cky Mineral (A7) (LF esence (A8) (LRR U		_ Depleted Dark S _ Redox Depressi			Material (TF2) w Dark Surface (TF12)
	ck (A9) (LRR P, T)	, –	Redox Depressi Marl (F10) (LRR			ain in Remarks)
	Below Dark Surface	- - (Δ11)		(F11) (MLRA 151)	Other (Expi	all ill Kelliaiks)
	rk Surface (A12)			: Masses (F12) (LRR O, P,	T) ³ Indicators	of hydrophytic vegetation and
	airie Redox (A16) (N	/LRA 150A)		(F13) (LRR P, T, U)	,	hydrology must be present.
	ucky Mineral (S1) (L		Delta Ochric (F1			isturbed or problematic.
	eyed Matrix (S4)			(F18) (MLRA 150A, 150B)		
	edox (S5)	_		plain Soils (F19) (MLRA 149	9A)	
	Matrix (S6)	_		ht Loamy Soils (F20) (MLRA	•	D)
Dark Sur	face (S7) (LRR P, S	i, T, U)				
Restrictive L	ayer (if observed):					
Туре:						
	hes):		•		Hydric Soil Pres	sent? Yes No ^x _
Remarks:			<u>-</u>		, a co	
Kemarks.						

Date: 5/19/21

Feature Name: Jcros_W_010_UP





Photograph Direction West

Comments:

Photograph Direction South

Comments:





Photograph Direction East

Comments:

Photograph Direction North

Project/Site: Dominion CVOW	City/County: Chesape	eake/Chesapeake	Sampling Date:	5/5/2021
Applicant/Owner: Dominion		State: <u>VA</u>	Sampling Point: JD	W_004
Investigator(s): J. Daugustine, B. Harris	Section, Township, R	ange:		
Landform (hillslope, terrace, etc.): Depression				(%): 1
Subregion (LRR or MLRA): MLRA 153B of LRR T Lat:				
Soil Map Unit Name: 2 - Acredale-Chapanoke complex, 0 to 1 percent slopes				
Are climatic / hydrologic conditions on the site typical for this time of y				
Are Vegetation, Soil, or Hydrology significantly				No x
Are Vegetation, Soil, or Hydrology naturally pr				
				4
SUMMARY OF FINDINGS – Attach site map showing	g sampling point	locations, transects	, important fea	tures, etc.
Hydrophytic Vegetation Present? Yesx No	Is the Sample	ud Area		
Hydric Soil Present? Yesx No	within a Wetla		No	
Wetland Hydrology Present? Yesx No	. Within a Wella	and? 165		
Remarks:	'		Observed Classific	cations:
Data point taken within existing overhead utility easement.			Cowardin:	
HYDROLOGY				
Wetland Hydrology Indicators:		Secondary Indica	tors (minimum of tw	vo required)
Primary Indicators (minimum of one is required; check all that apply))	Surface Soil (Cracks (B6)	
Surface Water (A1) Aquatic Fauna (B	13)		etated Concave Su	ırface (B8)
High Water Table (A2) Marl Deposits (B1) Marl Deposits (B1)		Drainage Pat		` ′
× Saturation (A3) Hydrogen Sulfide		Moss Trim Li		
	heres along Living Roof	ts (C3) Dry-Season \	Nater Table (C2)	
Sediment Deposits (B2) Presence of Redu		Crayfish Burr	ows (C8)	
Drift Deposits (B3) Recent Iron Redu	ction in Tilled Soils (C6) Saturation Vi	sible on Aerial Imag	gery (C9)
Algal Mat or Crust (B4) Thin Muck Surface	, ,	X Geomorphic	-	
Iron Deposits (B5) Other (Explain in I		Shallow Aqui		
Inundation Visible on Aerial Imagery (B7)	,	× FAC-Neutral	, ,	
Water-Stained Leaves (B9)			oss (D8) (LRR T, U	ا (ر
Field Observations:				
Surface Water Present? Yes Nox Depth (inches	s):			
Water Table Present? Yesx No Depth (inches	s): <u>8</u>			
Saturation Present? Yesx No Depth (inches	s): <u>0</u> w	etland Hydrology Presen	t? Yesx	No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photons are considered by the control of the contr	too provious inspection	as) if sysilable:		
Describe Recorded Data (stream gauge, monitoring well, aerial prior	tos, previous inspection	is), ii avallable.		
Remarks:				
Surface water (approximately 3 inches) observed adjacent to di	ata noint location. Th	a water tahla was measu	red at annrovimat	taly 8
inches during data collection but it can be assumed that due to				
inches of the soil surface and water infiltration was slow due to		sarrace water, water table	e is more intery w	1
mones of the son surface and water initiation was slow add to	mgir day content.			
				1

	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30 ft</u>)	% Cover	Species?	Status	Number of Dominant Species
1. <u>N/A</u>				That Are OBL, FACW, or FAC:5 (A)
2				Total Number of Dominant
3				Species Across All Strata: 5 (B)
4				
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
6				That Ale OBL, PACVV, of PAC (A/B)
-		= Total Cov	er	Prevalence Index worksheet:
50% of total cover: 0				Total % Cover of: Multiply by:
	20 70 01	total cover.		OBL species30 x 1 =30
Sapling Stratum (Plot size: 30 ft)				FACW species 40 x 2 = 80
1. <u>N/A</u>				FAC species 30 x 3 = 90
2				FACU species 0 x 4 = 0
3				UPL species 0 x 5 = 0
4				
5				Column Totals:100 (A)200 (B)
6				Prevalence Index = B/A =2.00
	0	= Total Cov	er	Hydrophytic Vegetation Indicators:
50% of total cover:0	20% of	total cover:	0	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft				x 2 - Dominance Test is >50%
1. Pinus taeda, Loblolly Pine	5	<u>Yes</u>	<u>FAC</u>	X 3 - Prevalence Index is ≤3.01
2				Problematic Hydrophytic Vegetation¹ (Explain)
3				
4				¹ Indicators of hydric soil and wetland hydrology must
5				be present, unless disturbed or problematic.
6.				Definitions of Five Vegetation Strata:
·		= Total Cov		John Marie Control Control
50% of total cover: 2.5				Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 30 ft)	20% 01	total cover.		approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
1. Eleocharis palustris, Common Spike-Rush	25	Yes	OBL	Carling 18 (and unlants avaluating was the size
Arundinaria tecta, Switch Cane			FACW	Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
Andropogon virginicus, Broom-Sedge				than 3 in. (7.6 cm) DBH.
				Shrub Made plants evaluating weeds vines
4. Andropogon glomeratus, Bushy Bluestem				Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
5. <u>Pinus taeda, Loblolly Pine</u>			<u>FAC</u>	, , ,
6. Juncus effusus, Lamp Rush	5	<u>No</u>	OBL	Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
7				plants, except woody vines, less than approximately
8				3 ft (1 m) in height.
9				Woody vine - All woody vines, regardless of height.
10				Woody Ville - All Woody Villes, regardless of fielght.
11				
	95	= Total Cov	er	
50% of total cover: 47.5	20% of	total cover:	19	
Woody Vine Stratum (Plot size: 30 ft)				
1. <u>N/A</u>				
2				
3				
4				
D				Hydrophytic
		= Total Cov		Vegetation Present? Yes _ x _ No
50% of total cover: 0	20% of	total cover	0	103
Remarks: (If observed, list morphological adaptations belo	w).			

Sampling Point: JD W 004

SolL Sampling Point: JD W 004

Profile Des Depth	cription: (Describe	to the dep		nent the i x Feature:		or confirm	the absence of in-	dicators.)
(inches)	Matrix Color (moist)	%	Color (moist)	<u> %</u>	Type ¹	Loc ²	Texture	Remarks
0-5	10YR 4/1	95%	7.5YR 6/6	5%	C	M	Clay loam	
5-12	10YR 5/1	95%	10YR 5/8	5%	C	PL	Clay loam	
12-20	2.5Y 7/1	100%					Clay loam	
¹ Type: C=C	oncentration, D=Dep	letion.RM=	Reduced Matrix, MS	S=Masked	Sand Gra	ins.	² Location: PL=F	Pore Lining, M=Matrix.
	Indicators: (Applic							roblematic Hydric Soils ³ :
Histoso	l (A1)		Polyvalue Be) 1 cm Muck ((A9) (LRR O)
	pipedon (A2)		Thin Dark Su					(A10) (LRR S)
	listic (A3) en Sulfide (A4)		Loamy Mucky Loamy Gleye			O)		ertic (F18) (outside MLRA 150A,B) oodplain Soils (F19) (LRR P, S, T)
, ,	ed Layers (A5)		Depleted Mat		12)			Bright Loamy Soils (F20)
	Bodies (A6) (LRR F	P, T, U)	Redox Dark		6)		(MLRA 15	
	ucky Mineral (A7) (L l				. ,			Material (TF2)
_	resence (A8) (LRR L	J)	Redox Depre	,	8)		—	w Dark Surface (TF12)
	uck (A9) (LRR P, T) ed Below Dark Surfac	e (A11)	Marl (F10) (L Depleted Och	-	(MIRA 14	i 1)	Other (Expla	ain in Remarks)
	ark Surface (A12)	()	Iron-Mangane	` '	•	,	T) ³ Indicators	of hydrophytic vegetation and
Coast F	Prairie Redox (A16) (I	MLRA 150A				U)	wetland h	nydrology must be present,
	Mucky Mineral (S1) (LRR O, S)	Delta Ochric				unless di	sturbed or problematic.
	Gleyed Matrix (S4) Redox (S5)		Reduced Ver Piedmont Flo				0.6.\	
	d Matrix (S6)						a., A 149A, 153C, 153I	D)
	urface (S7) (LRR P,	S, T, U)				, (, , ,	,
Restrictive	Layer (if observed)	:						
Туре:								
Depth (in	nches):						Hydric Soil Pres	ent? Yesx No
Remarks:								

Date: 5/5/21







Photograph Direction West

Comments:

Photograph Direction East

Comments:





Photograph Direction South

Comments:

Photograph Direction North

Project/Site: Dominion CVOW	City/County: C	nesapeake/Chesapeake	Sampling Date: 5/5/2021
Applicant/Owner: Dominion		State: VA	Sampling Point: JD_W04_UP
Investigator(s): J. Daugustine, B. Harris	Section, Town	ship, Range:	
Landform (hillslope, terrace, etc.): Flat			
Subregion (LRR or MLRA): MLRA 153B of LRR T			
Soil Map Unit Name: 2 - Acredale-Chapanoke complex, 0 to 1 p			
Are climatic / hydrologic conditions on the site typical for			
Are Vegetation, Soil, or Hydrology	_ significantly disturbed?	Are "Normal Circumstar	nces" present? Yes Nox
Are Vegetation, Soil, or Hydrology	_ naturally problematic?	(If needed, explain any	answers in Remarks.)
SUMMARY OF FINDINGS - Attach site ma	ap showing sampling	ooint locations, trans	sects. important features, etc.
		,	
1		ampled Area	
1	No within a	a Wetland? Yes	s No×
Wetland Hydrology Present? Yes	Nox		
Remarks: Data point taken along forested edge of existing ut	ility assamant Sail moats t	ha danlatad matrix hydri	Observed Classifications:
soil indicator, however only one secondary hydrolo			C Cowardin:
therefore does not characterize this area as a wetla	0,	, FAC-Heutral test, and	
therefore does not endracterize this area as a week	and.		
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary	Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check			e Soil Cracks (B6)
	atic Fauna (B13)	Sparse	ely Vegetated Concave Surface (B8)
	Deposits (B15) (LRR U)		age Patterns (B10)
	ogen Sulfide Odor (61)	_	Trim Lines (B16)
	ized Rhizospheres along Livir		eason Water Table (C2)
	ence of Reduced Iron (C4)		sh Burrows (C8)
	ent Iron Reduction in Tilled So		ation Visible on Aerial Imagery (C9)
<u> </u>	Muck Surface (C7)		orphic Position (D2)
	er (Explain in Remarks)		w Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)		_	Neutral Test (D5)
Water-Stained Leaves (B9)		Sphag	num moss (D8) (LRR T, U)
Field Observations:			
	Depth (inches):	_	
Water Table Present? Yes Nox		_	
Saturation Present? Yes Nox (includes capillary fringe)	Depth (inches):	_ Wetland Hydrology F	Present? Yes Nox
Describe Recorded Data (stream gauge, monitoring we	ell, aerial photos, previous ins	pections), if available:	
Remarks:			
			-

		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft)	% Cover	Species?	? Status	Number of Dominant Species
1. <u>N/A</u>				That Are OBL, FACW, or FAC:3 (A)
2				
				Total Number of Dominant Species Across All Strata: 3 (B)
3				Species Across All Strata:3 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:100.0% (A/B)
6				
		= Total Co	ver	Prevalence Index worksheet:
50% of total cover: 0				Total % Cover of: Multiply by:
	20700	i total cove		OBL species0 x 1 =0
Sapling Stratum (Plot size: 30 ft)				FACW species 85 x 2 = 170
1. <u>N/A</u>				FAC species 30 x 3 = 90
2				
3				FACU species 0 x 4 = 0
4				UPL species0 x 5 =0
5.				Column Totals: <u>115</u> (A) <u>260</u> (B)
6				Prevalence Index = B/A =2.26
	0	= Total Co	ver	Hydrophytic Vegetation Indicators:
50% of total cover:0	20% of	f total cove	r: <u> 0 </u>	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft)				x 2 - Dominance Test is >50%
1. <u>N/A</u>				I —
				X 3 - Prevalence Index is ≤3.01
2				Problematic Hydrophytic Vegetation¹ (Explain)
3				
4				¹ Indicators of hydric soil and wetland hydrology must
5				be present, unless disturbed or problematic.
6				Definitions of Five Vegetation Strata:
		= Total Co	ver	
EOOK of total agrees 0				Tree – Woody plants, excluding woody vines,
50% of total cover: 0	20% 0	i total cove	1	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: 30 ft)				(7.0 cm) of larger in diameter at breast neight (DBH).
Arundinaria tecta, Switch Cane	80	Yes	FACW	Sapling – Woody plants, excluding woody vines,
2. Pinus taeda, Loblolly Pine	5	No	<u>FAC</u>	approximately 20 ft (6 m) or more in height and less
3. Andropogon virginicus, Broom-Sedge		No	FAC	than 3 in. (7.6 cm) DBH.
4. Andropogon glomeratus, Bushy Bluestem			FACW	Shrub – Woody plants, excluding woody vines,
			TACVV	approximately 3 to 20 ft (1 to 6 m) in height.
5				
6				Herb – All herbaceous (non-woody) plants, including
7				herbaceous vines, regardless of size, <u>and</u> woody plants, except woody vines, less than approximately
8				3 ft (1 m) in height.
9.				
10				Woody vine - All woody vines, regardless of height.
11			-	
	95	= Total Co	ver	
50% of total cover: <u>47.5</u>	20% of	f total cove	r: <u>19</u>	
Woody Vine Stratum (Plot size: 30 ft)				
1. Vitis rotundifolia, Muscadine	15	Yes	FAC	
2. <u>Smilax rotundifolia, Horsebrier</u>		-	<u>FAC</u>	
3				
4				
5				Hydrophytic
	20	= Total Co	ver	Vegetation
50% of total cover:10				Present? Yes <u>×</u> No
		i total cove	· <u> </u>	
Remarks: (If observed, list morphological adaptations belo	*			
Forested area consisted of Pinus taeda, Acer rubrum, a	nd Fagus ខ្	grandifolia		

Sampling Point: JD W 004 UP

Profile Des	cription: (Describe	to the depth	needed to docur	nent the i	ndicator	or confirm	the absence of ir	ndicators.)
Depth	Matrix		Redo	x Features				
(inches)	Color (moist)	%	Color (moist)		Type ¹	Loc ²	<u>Texture</u>	Remarks
0-3	10YR 3/1	100%					Loam	
3-7	10YR 3/2	100%					Loam	
7-20	10YR 6/1	98% 1	LOYR 6/6	2%	С	М	Clay loam	
	-							
	oncentration, D=Dep					ains.		Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applic	able to all L						Problematic Hydric Soils ³ :
Histosol			Polyvalue Be					
	pipedon (A2)		Thin Dark Su					(A10) (LRR S)
	istic (A3) en Sulfide (A4)		Loamy Muck	-		(0)		/ertic (F18) (outside MLRA 150A,B)
ı —	d Layers (A5)		Loamy Gleye	,	F2)			Floodplain Soils (F19) (LRR P, S, T) s Bright Loamy Soils (F20)
_	: Bodies (A6) (LRR F	P T UI	Redox Dark		6)		(MLRA 1	
	ucky Mineral (A7) (L		Depleted Da	,	,		•	t Material (TF2)
I —	resence (A8) (LRR l		Redox Depre					ow Dark Surface (TF12)
1 cm Mi	uck (A9) (LRR P, T)	,	Marl (F10) (L	,	,			lain in Remarks)
Deplete	d Below Dark Surfac	e (A11)	Depleted Oc	hric (F11)	(MLRA 1	51)		
ı —	ark Surface (A12)		Iron-Mangan				,	s of hydrophytic vegetation and
ı —	rairie Redox (A16) (,	_			, U)		hydrology must be present,
	Mucky Mineral (S1) (LRR O, S)	Delta Ochric		-	0.6. 450.00)	unless	disturbed or problematic.
· —	Gleyed Matrix (S4)		Reduced Ver				241	
ı —	Redox (S5) d Matrix (S6)		Piedmont Flo				A 149A, 153C, 153	3D)
	irface (S7) (LRR P, 3	S. T. U)	Anomalous L	Jilgili Loai	ily oolis (1 20) (WILIX	1 143A, 133C, 13	30)
	Layer (if observed)							
Type:								
Depth (in	ches):						Hydric Soil Pre-	sent? Yesx No
							Tiyane con Tre	30111: 103 100
Remarks:								

Date: 5/5/21







Photograph Direction East

Comments:

Photograph Direction West

Comments:





Photograph Direction South

Comments:

Photograph Direction North

Project/Site: Dominion CVOW	_ City/County: Chesape	eake/Chesapeake	Sampling Date:	5/5/2021
Applicant/Owner: Dominion		State: <u>VA</u>	Sampling Point: JE)_W 005
Investigator(s): J. Daugustine, B. Harris	Section, Township, R	Range:		
Landform (hillslope, terrace, etc.): Depression				(%): 1
Subregion (LRR or MLRA): MLRA 153B of LRR T Lat:	36.744654	Long:	-76.136382 Datu	m: <u>WGS84</u>
		NWI classific		
Are climatic / hydrologic conditions on the site typical for this time of	year? Yesx No	(If no, explain in R	emarks.)	
Are Vegetation, Soil, or Hydrology significant				No x
Are Vegetation, Soil, or Hydrology naturally p				
SUMMARY OF FINDINGS – Attach site map showing				tures, etc.
		,		
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No No No No No No No No No No No No No		ed Area		
Wetland Hydrology Present? Yes x No	within a Wetla	and? Yes <u>x</u>	No	
Remarks:			Observed Classifi	cations:
Data point taken within existing overhead utility easement.			Cowardin:	
			cowardin.	
HYDROLOGY				
Wetland Hydrology Indicators:		Secondary Indica	tors (minimum of tw	vo required)
Primary Indicators (minimum of one is required; check all that apply	<i>(</i>)	X Surface Soil		
Surface Water (A1) Aquatic Fauna (B			getated Concave Su	ırface (B8)
High Water Table (A2) Marl Deposits (B)		Drainage Pat		mace (Bo)
Saturation (A3) Hydrogen Sulfide		Moss Trim Li		
	pheres along Living Roo	_	Water Table (C2)	
Sediment Deposits (B2) Presence of Red		Crayfish Burr	. ,	
	uction in Tilled Soils (C6		sible on Aerial Imag	gery (C9)
X Algal Mat or Crust (B4) Thin Muck Surface	,	x Geomorphic		
Iron Deposits (B5) Other (Explain in		Shallow Aqui		
Inundation Visible on Aerial Imagery (B7)	,	× FAC-Neutral	, ,	
X Water-Stained Leaves (B9)			noss (D8) (LRR T, L	ا (د
Field Observations:				
Surface Water Present? Yes Nox Depth (inche	es):			
Water Table Present? Yes Nox Depth (inche	es):			
Saturation Present? Yes No _x _ Depth (inche	es): V	Vetland Hydrology Presen	t? Yesx	No
(includes capillary fringe)		and if available.		
Describe Recorded Data (stream gauge, monitoring well, aerial pho	otos, previous inspection	ns), if available:		
Powerdies				
Remarks:				
				1
I and the second				

	Absolute Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30 ft</u>)	% Cover Species?	Status	Number of Dominant Species
1. <u>N/A</u>			That Are OBL, FACW, or FAC: 2 (A)
2			Total Number of Dominant
3			Species Across All Strata: 2 (B)
4.			(2)
			Percent of Dominant Species
5			That Are OBL, FACW, or FAC:100.0% (A/B)
6			Prevalence Index worksheet:
	0 = Total Cov		Total % Cover of:Multiply by:
50% of total cover:0	20% of total cover:	0	OBL species65 x 1 =65
Sapling Stratum (Plot size: 30 ft)			
1. <u>N/A</u>			FACW species30 x 2 =60
2			FAC species0 x 3 =0
3.			FACU species 0 x 4 = 0
			UPL species0 x 5 =0
4			Column Totals:95 (A)125 (B)
5			
6			Prevalence Index = B/A =1.32
	0 = Total Cov		Hydrophytic Vegetation Indicators:
50% of total cover:0	20% of total cover:	0	x 1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft)			x 2 - Dominance Test is >50%
1. <u>N/A</u>			x 3 - Prevalence Index is ≤3.0 ¹
2			Problematic Hydrophytic Vegetation¹ (Explain)
3.			Problematic Hydrophytic Vegetation (Explain)
4.			1
			Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5			<u>'</u>
6			Definitions of Five Vegetation Strata:
	0 = Total Cov	er	Tree – Woody plants, excluding woody vines,
50% of total cover:0	20% of total cover:	0	approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: 30 ft)			(7.6 cm) or larger in diameter at breast height (DBH).
Eleocharis palustris, Common Spike-Rush	40 Yes	OBL	Sapling – Woody plants, excluding woody vines,
2. Arundinaria gigantea, Giant Cane	<u>30</u> Yes	FACW	approximately 20 ft (6 m) or more in height and less
	15 No		than 3 in. (7.6 cm) DBH.
4. Decodon verticillatus, Swamp-Loosestrife			Shrub – Woody plants, excluding woody vines,
			approximately 3 to 20 ft (1 to 6 m) in height.
5. <u>Carex Iurida, Shallow Sedge</u>		OBL	
			Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, <u>and</u> woody
7			plants, except woody vines, less than approximately
8			3 ft (1 m) in height.
9			Woody vine – All woody vines, regardless of height.
10			woody virie – All woody viries, regardless of fieight.
11			
	95 = Total Cov	er	
50% of total cover: 47.5			
	20 % of total cover.		
Woody Vine Stratum (Plot size: 30 ft)			
1. <u>N/A</u>			
2			
3			
4			
5			Hydrophytic
	0 = Total Cov	er	Vegetation
50% of total cover:0			Present? Yesx No
Remarks: (If observed, list morphological adaptations below		<u> </u>	
remarks. (II observed, list morphological adaptations belo	vv <i>)</i> .		

Sampling Point: JD W 005

SolL Sampling Point: JD W 005

Depth	cription: (Describe Matrix	to the dep		x Feature		or commi	tile absence of file	dicators.)	
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks	
0-2	7.5YR 4/2	100%					Clay loam		
2-17	2.5Y 4/1	98%	2.5Y 4/4	2%	C	M	Clay loam		
17-20	10YR 5/1	100%					Clay loam		
¹ Type: C=C	oncentration, D=De	oletion. RM:	=Reduced Matrix. M	S=Masked	d Sand Gra	ains.	² Location: PL=F	Pore Lining, M=Matrix.	
	Indicators: (Applie							roblematic Hydric Soils ³ :	
Histoso			Polyvalue Be				· 		
	pipedon (A2)		Thin Dark Su					A10) (LRR S)	50 A B)
ı 	listic (A3) en Sulfide (A4)		Loamy Muck Loamy Gleye	-		O)		rtic (F18) (outside MLRA 1 : oodplain Soils (F19) (LRR P	
	d Layers (A5)		× Depleted Ma		. – /			Bright Loamy Soils (F20)	, -, .,
	Bodies (A6) (LRR F	, , ,	Redox Dark	,	,		(MLRA 15	,	
	ucky Mineral (A7) (L resence (A8) (LRR (Depleted Da Redox Depre					Material (TF2) v Dark Surface (TF12)	
	uck (A9) (LRR P, T)	٠,	Marl (F10) (L	,	0)		—	in in Remarks)	
I	d Below Dark Surfac	ce (A11)	Depleted Oc	hric (F11)	(MLRA 1	51)			
_	ark Surface (A12)	MI DA 450	Iron-Mangan		, , ,		•	of hydrophytic vegetation ar	nd
	rairie Redox (A16) (Mucky Mineral (S1) (A) Umbric Surfa Delta Ochric	, ,		, U)		nydrology must be present, sturbed or problematic.	
	Gleyed Matrix (S4)		Reduced Ver		-	0A, 150B)	4	otal boa of problematic.	
_	Redox (S5)		Piedmont Flo						
	d Matrix (S6) urface (S7) (LRR P, -	C T III	Anomalous E	Bright Loai	my Soils (I	F20) (MLR	A 149A, 153C, 153I	0)	
	Layer (if observed)						1		
"	iches):						Hydric Soil Pres	ent? Yes <u> </u>	
Remarks:							1		

Date: <u>5/5/21</u>







Photograph Direction North

Comments:

Photograph Direction South

Comments:





Photograph Direction East

Comments:

Photograph Direction West

Project/Site: Dominion CVOW	City/County: Chesapea	ke/Chesapeake	Sampling Date:	5/5/2021
Applicant/Owner: Dominion		State: <u>VA</u>	Sampling Point: JD	_W05_UP
Investigator(s): J. Daugustine, B. Harris	Section, Township, Ran	nge:		
Landform (hillslope, terrace, etc.): Flat				(%): <u>0</u>
Subregion (LRR or MLRA): MLRA 153B of LRR T Lat:				
		NWI classific		
Are climatic / hydrologic conditions on the site typical for this time of y				
Are Vegetation, Soil, or Hydrology significantly				No ×
Are Vegetation, Soil, or Hydrology naturally pr		eded, explain any answe		
			,	turos oto
SUMMARY OF FINDINGS – Attach site map showing		ocations, transects	, important lea	tures, etc.
Hydrophytic Vegetation Present? Yes Nox	is the sampled	Area		
Hydric Soil Present? Yes Nox	within a Wetlan		No×	
Wetland Hydrology Present? Yes Nox	,			
Remarks:			Observed Classific	cations:
Data point location taken at forested edge of existing overhead	lutility easement.		Cowardin:	
HYDROLOGY				
Wetland Hydrology Indicators:		Secondary Indica	ators (minimum of tw	vo required)
Primary Indicators (minimum of one is required; check all that apply)		Surface Soil	•	o roquirou _j
Surface Water (A1) Aquatic Fauna (B1			getated Concave Su	ırface (B8)
High Water Table (A2) Marl Deposits (B1		Drainage Pat		mace (Bo)
Saturation (A3) Hydrogen Sulfide		Moss Trim Li		
I and the second	neres along Living Roots	_	Water Table (C2)	
Sediment Deposits (B2) Presence of Redu		Crayfish Burn	, ,	
<u> </u>	ction in Tilled Soils (C6)		isible on Aerial Imag	gery (C9)
Algal Mat or Crust (B4) Thin Muck Surface	, ,		Position (D2)	
Iron Deposits (B5) Other (Explain in f	Remarks)	Shallow Aqui	itard (D3)	
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral		
Water-Stained Leaves (B9)		Sphagnum m	noss (D8) (LRR T, L	J)
Field Observations:				
Surface Water Present? Yes Nox Depth (inches	s):			
Water Table Present? Yes Nox Depth (inches	s):			
Saturation Present? Yes Nox Depth (inches	s): Wet	tland Hydrology Presen	it? Yes	Nox
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photography)	oe previous inspections	\ if available:		
Describe Necorded Data (stream gauge, monitoring well, acrial prior	.os, previous irispections/	j, ii avallable.		
Remarks:				
Remarks.				
				1

25 _ = Total Cover

50% of total cover: <u>12.5</u> 20% of total cover: <u>5</u>

Vegetation

Present?

/EGETATION (Five Strata) – Use scientific na			l1: 4	Sampling Point: JD_\ Dominance Test worksheet:	W 003		
Tree Stratum (Plot size: <u>30 ft</u>) 1. <u>N/A</u>	% Cover		Status	Number of Dominant Species That Are OBL, FACW, or FAC: 2	_ (A)		
2 3				Total Number of Dominant Species Across All Strata: 4	_ (B)		
4 5				Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0%	_ (A/B)		
6		= Total Cov		Prevalence Index worksheet:			
50% of total cover: 0				Total % Cover of: Multiply by:	_		
Sapling Stratum (Plot size: 30 ft)	20% 01	total cover		OBL species0 x 1 =0	_		
1. <u>N/A</u>				FACW species40 x 2 =80	_		
				FAC species x 3 = 60			
2				FACU species 50 x 4 = 200			
3				UPL species0 x 5 =0			
4 5				Column Totals: <u>110</u> (A) <u>340</u>	(B)		
6				Prevalence Index = B/A =3.09			
		= Total Co	/er	Hydrophytic Vegetation Indicators:			
50% of total cover:0	20% of	total cover	:0	1 - Rapid Test for Hydrophytic Vegetation			
Shrub Stratum (Plot size: 30 ft)				2 - Dominance Test is >50%			
1. <u>N/A</u>				3 - Prevalence Index is ≤3.0 ¹			
2				Problematic Hydrophytic Vegetation ¹ (Expl	ain)		
3					,		
4				Indicators of hydric soil and wetland hydrology	must		
5.				be present, unless disturbed or problematic.	must		
6.				Definitions of Five Vegetation Strata:			
	0 :	= Total Co	/er	Tree – Woody plants, excluding woody vines,			
50% of total cover: 0	20% of	total cover	:0	approximately 20 ft (6 m) or more in height and (7.6 cm) or larger in diameter at breast height (1			
Herb Stratum (Plot size: 30 ft)		.,		(7.6 cm) of larger in diameter at breast neight (ивп).		
1. Arundinaria tecta, Switch Cane	40		FACW	Sapling – Woody plants, excluding woody vine approximately 20 ft (6 m) or more in height and			
2. Anthoxanthum odoratum, Large Sweet Vernal Gra				than 3 in. (7.6 cm) DBH.	1033		
3. Solidago altissima, Tall Goldenrod		No	FACU	Chrish Woods plants evaluating woods since			
Microstegium vimineum, Japanese Stilt Grass Eupatorium capillifolium, Dog-Fennel		No No	FACU	Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.	,		
				Harb All harbanasia (nan waashi) planta inala	din a		
6				Herb – All herbaceous (non-woody) plants, incl herbaceous vines, regardless of size, and wood	_		
7				plants, except woody vines, less than approxim			
8				3 ft (1 m) in height.			
9				Woody vine - All woody vines, regardless of h	eight.		
10							
11		= Total Co					
50% of total cover: <u>42</u> .							
	207001	.S.u. COVE					
Woody Vine Stratum (Plot size: 30 ft							
	15	Yes	FACII				
1. Parthenocissus quinquefolia, Virginia-Creeper		Yes Yes	FACU FAC				
Parthenocissus quinquefolia, Virginia-Creeper Smilax rotundifolia, Horsebrier	10	Yes	FAC				
1. Parthenocissus quinquefolia, Virginia-Creeper	10	Yes	FAC				

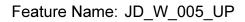
Remarks: (If observed, list morphological adaptations below).

Yes ____ No __x

SOIL Sampling Point: JD W 005 UP

Profile Desc	cription: (Describe	to the dept	h needed to docun	nent the i	ndicator	or confirm	the absence of i	ndicators.)	
Depth	Matrix	 .		x Features	-		Taytura	Damark	-
(inches) 0-14	Color (moist)	100%	Color (moist)	%	Type'	_Loc ²		Remarks	<u> </u>
	10YR 4/2		10VD F /C				Clay loam		
14-20	10YR 4/3	95%	10YR 5/6	5%	<u>C</u>	M	Clay loam		
¹ Type: C=C	oncentration, D=Dep	letion, RM=	Reduced Matrix, MS	= S=Masked	Sand Gra	ains.	² Location: PL=	=Pore Lining, M=Ma	atrix.
	Indicators: (Applica							Problematic Hydri	
Histosol	(A1)		Polyvalue Bel	low Surfa	ce (S8) (L	RR S, T, U) 1 cm Muck	(A9) (LRR O)	
	oipedon (A2)		Thin Dark Su					(A10) (LRR S)	
	istic (A3)		Loamy Mucky			0)		/ertic (F18) (outsid	
ı —	en Sulfide (A4) d Layers (A5)		Loamy Gleye Depleted Mat		F2)			Floodplain Soils (F1 Bright Loamy Soil	
ı —	Bodies (A6) (LRR P,	T, U)	Redox Dark S		6)		(MLRA 1		3 (1 20)
	ıcky Mineral (A7) (LF		Depleted Dar					t Material (TF2)	
ı —	esence (A8) (LRR U)	Redox Depre	ssions (F	8)		Very Shalle	ow Dark Surface (T	F12)
	ick (A9) (LRR P, T)		Marl (F10) (L	,			Other (Exp	lain in Remarks)	
l — ·	d Below Dark Surface ark Surface (A12)	e (A11)	Depleted Och Iron-Mangane	, ,	,		T) ³ Indicator	s of hydrophytic ve	getation and
I —	rairie Redox (A16) (N	ILRA 150A	_		. , ,		•	l hydrology must be	-
ı —	Mucky Mineral (S1) (L		Delta Ochric			, -,		disturbed or probler	
	Gleyed Matrix (S4)		Reduced Ver						
ı —	Redox (S5)		Piedmont Flo						
	l Matrix (S6)	T 11\	Anomalous B	right Loar	ny Soils (I	-20) (MLR	A 149A, 153C, 15	3D)	
	rface (S7) (LRR P, S Layer (if observed):						T		
Type:									
Depth (in	ches):						Hydric Soil Pre	sent? Yes	No x
Remarks:	,								
Soil contain	s redoximorphic fe	atures but	the matrix is not d	epleted e	enough to	meet any	y hydric soil indic	ators.	
	·			·			•		

Date: 5/5/21







Photograph Direction East

Comments:

Photograph Direction West

Comments:





Photograph Direction South

Comments:

Photograph Direction North

Project/Site: Dominion CVOW	City/County: Virgin	ia Beach/Virginia Beach	Sampling Date: 5/5/2022
Applicant/Owner: Dominion		State: VA	Sampling Point: JD_W 006
Investigator(s): J. Daugustine, B. Harris	Section, Township,	Range:	
Landform (hillslope, terrace, etc.): Depression			
Subregion (LRR or MLRA): MLRA 153B of LRR T Lat:	36.7471	5 Long:	-76.132314 Datum: WGS84
Soil Map Unit Name: 21 - Nawney silt loam		NWI clas	sification: PFO
Are climatic / hydrologic conditions on the site typical for this time of y	/ear? Yesx N	o (If no, explain	n Remarks.)
Are Vegetation, Soil, or Hydrology significantI			
Are Vegetation, Soil, or Hydrology naturally p		f needed, explain any an	
SUMMARY OF FINDINGS – Attach site map showin			· ·
Hydrophytic Vegetation Present? Yesx No Hydric Soil Present? Yesx No	- Is the Saint		x No
Wetland Hydrology Present? Yesx No	-		
Remarks:			Observed Classifications: Cowardin: PFO
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary In	dicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply x Surface Water (A1)	13) 15) (LRR U) Odor (24) heres along Living Reduced Iron (C4) action in Tilled Soils (Care (C7)	Sparsely Drainage Moss Tri Dots (C3) Crayfish Saturatio X Geomory Shallow A FAC-Net	Soil Cracks (B6) Vegetated Concave Surface (B8) Patterns (B10) m Lines (B16) son Water Table (C2) Burrows (C8) n Visible on Aerial Imagery (C9) shic Position (D2) Aquitard (D3) stral Test (D5) m moss (D8) (LRR T, U)
Surface Water Present? Yesx No Depth (inche Water Table Present? Yesx No Depth (inche Saturation Present? Yesx No Depth (inche (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial pho Remarks:	s): <u>0</u>	Wetland Hydrology Pre	sent? Yes <u>x</u> No

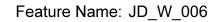
		Dominant		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30 ft</u>)		Species?		Number of Dominant Species
1. <u>Taxodium ascendens, Pond-Cypress</u>	30	<u>Yes</u>	OBL_	That Are OBL, FACW, or FAC:8 (A)
2. <u>Salix nigra, Black Willow</u>		<u>Yes</u>	OBL_	Total Number of Dominant
3. Catalpa speciosa, Northern Catalpa	5	<u>No</u>	<u>FACU</u>	Species Across All Strata: 8 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100.0% (A/E
6				
	55 :	= Total Cov	er	Prevalence Index worksheet:
50% of total cover: 27.5	20% of	total cover:	11	Total % Cover of: Multiply by:
Sapling Stratum (Plot size: 30 ft)				OBL species <u>85</u> x 1 = <u>85</u>
1. Acer rubrum, Red Maple	30	Yes	FAC	FACW species15 x 2 =30
Liquidambar styraciflua, Sweet-Gum				FAC species <u>85</u> x 3 = <u>255</u>
				FACU species10 x 4 =40
3. Taxodium ascendens, Pond-Cypress				UPL species0 x 5 =0
4. Salix nigra, Black Willow				Column Totals: (A) (B)
5. <u>Ulmus americana, American Elm</u>	5	<u>No</u>	<u>FAC</u>	(3)
6				Prevalence Index = B/A =2.10
	<u>85</u> :	= Total Cov	er	Hydrophytic Vegetation Indicators:
50% of total cover: <u>42.5</u>	20% of	total cover:	17	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft)				X 2 - Dominance Test is >50%
1. <u>Taxodium ascendens, Pond-Cypress</u>	15	<u>Yes</u>	OBL_	X 3 - Prevalence Index is ≤3.0¹
2. Acer rubrum, Red Maple				Problematic Hydrophytic Vegetation¹ (Explain)
3. <u>Liquidambar styraciflua, Sweet-Gum</u>				Problematic Hydrophytic Vegetation (Explain)
4. Catalpa speciosa, Northern Catalpa			FACU	1
				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5				Definitions of Five Vegetation Strata:
0				Definitions of Five Vegetation Strata.
500/ -51/ 1-1 45		= Total Cov		Tree – Woody plants, excluding woody vines,
50% of total cover: 15	20% of	total cover:	6	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: 30 ft)				(7.0 cm) of larger in diameter at breast height (DBH).
1. Onoclea sensibilis, Sensitive Fern		<u>Yes</u>	<u>FACW</u>	Sapling – Woody plants, excluding woody vines,
Carex tribuloides, Blunt Broom Sedge	5	<u>Yes</u>	<u>FACW</u>	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
3				than 3 iii. (7.6 dili) DBH.
4				Shrub – Woody plants, excluding woody vines,
5				approximately 3 to 20 ft (1 to 6 m) in height.
6				Herb - All herbaceous (non-woody) plants, including
7.				herbaceous vines, regardless of size, and woody
8				plants, except woody vines, less than approximately 3 ft (1 m) in height.
9				3 it (1 iii) iii neight.
10				Woody vine - All woody vines, regardless of height.
11				
		= Total Cov		
50% of total cover: <u>7.5</u>	20% of	total cover:	3	
Woody Vine Stratum (Plot size: 30 ft)				
Smilax rotundifolia, Horsebrier	10	Yes	FAC_	
2				
3				
4				
5.				Hydrophytic
	10 :	= Total Cov	er	Hydrophytic Vegetation
50% of total cover: 5				Present? Yes x No
·		total cover.		
Remarks: (If observed, list morphological adaptations belo	vv).			

Sampling Point: JD W 006

SolL Sampling Point: JD W 006

Depth	cription: (Describe <u>Matrix</u>	•	Red	ox Feature	s			,	
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks	
0-6	10YR 5/1	100%					Clay loam		
6-20	10YR 5/1	60%	10YR 5/6	_ 10%_	C	M	Clay loam		
	2.5Y 4/2	20%							
¹Type: C=0	Concentration, D=De	nletion RM:	=Reduced Matrix M	– ——— IS=Masker	d Sand Gr	ains	2l ocation: PI =	Pore Lining, M=Matrix	,
	Indicators: (Appli					2		Problematic Hydric S	
Histoso	d (A1)		Polyvalue B	elow Surfa	ce (S8) (L	RR S, T, L	J) 1 cm Muck	(A9) (LRR O)	
	pipedon (A2)		Thin Dark S					(A10) (LRR S)	
	listic (A3)		Loamy Mucl	-		(O)		ertic (F18) (outside M	
	en Sulfide (A4) ed Layers (A5)		Loamy Gley _x Depleted Ma	,	(FZ)			loodplain Soils (F19) (Bright Loamy Soils (F	. , ,
_	Bodies (A6) (LRR I	P, T, U)	Redox Dark		-6)		(MLRA 1		20)
	lucky Mineral (A7) (L				. ,			Material (TF2)	
	resence (A8) (LRR		Redox Depr	,	8)		—	w Dark Surface (TF12	2)
	luck (A9) (LRR P, T) ed Below Dark Surfa		Marl (F10) (Depleted Oc	-	(MIRA 1	54)	Other (Expl	ain in Remarks)	
	Park Surface (A12)	00 (////)	Iron-Mangar	, ,	•	•	T) ³ Indicators	of hydrophytic vegeta	ation and
	Prairie Redox (A16) (MLRA 150				, U)	•	hydrology must be pre	
	Mucky Mineral (S1)	(LRR O, S)	Delta Ochrid					isturbed or problemat	ic.
	Gleyed Matrix (S4) Redox (S5)		Reduced Ve Piedmont FI						
	d Matrix (S6)						A 149A, 153C, 153	D)	
	urface (S7) (LRR P,	S, T, U)	_		(, (, , , , , , , , , , , , , , , , , , , ,	_,	
Restrictive	Layer (if observed)):							
Туре:									
Depth (ii	nches):						Hydric Soil Pres	ent? Yesx	No
Remarks:									

Date: <u>5/5/21</u>







Photograph Direction North

Comments:

Photograph Direction South

Comments:





Photograph Direction West

Comments:

Photograph Direction East

Project/Site: Dominion CVOW	City/County: Virgini	a Beach/Virginia Beach	Sampling Date: 5/5	/2021
Applicant/Owner: Dominion		State: <u>VA</u>	Sampling Point: JD W06	UP
Investigator(s): J. Daugustine, B. Harris	Section, Township,	Range:		
Landform (hillslope, terrace, etc.): Hillslope				
Subregion (LRR or MLRA): MLRA 153B of LRR T Lat:	36.74714	7 Long:	-76.132373 Datum: WGS	84
		NWI classifi		
Are climatic / hydrologic conditions on the site typical for this time of y				
Are Vegetation, Soil, or Hydrology significantl				
Are Vegetation, Soil, or Hydrology naturally pr		f needed, explain any answe		
SUMMARY OF FINDINGS – Attach site map showing			,	etc.
Hydrophytic Vegetation Present? Yesx No				
Hydric Soil Present? Yes No x	is the Samp			
Wetland Hydrology Present? Yes Nox	within a We	tland? Yes	Nox	
Remarks:			Observed Classifications: Cowardin:	_
HYDROLOGY				
Wetland Hydrology Indicators:		Secondary Indic	ators (minimum of two requir	red)
Primary Indicators (minimum of one is required; check all that apply))		Cracks (B6)	
Surface Water (A1) Aquatic Fauna (B			getated Concave Surface (B	38)
High Water Table (A2) Marl Deposits (B1			atterns (B10)	,
Saturation (A3) Hydrogen Sulfide		Moss Trim L		
Water Marks (B1) Oxidized Rhizospi		oots (C3) Dry-Season	Water Table (C2)	
Sediment Deposits (B2) Presence of Redu		Crayfish Bu	rows (C8)	
Drift Deposits (B3) Recent Iron Redu	ction in Tilled Soils (C	C6) Saturation V	isible on Aerial Imagery (C9))
Algal Mat or Crust (B4) Thin Muck Surface	e (C7)	Geomorphic	Position (D2)	
Iron Deposits (B5) Other (Explain in	Remarks)	Shallow Aqu	ıitard (D3)	
Inundation Visible on Aerial Imagery (B7)		FAC-Neutra	l Test (D5)	
Water-Stained Leaves (B9)		Sphagnum r	moss (D8) (LRR T, U)	
Field Observations:				
Surface Water Present? Yes Nox Depth (inches				
Water Table Present? Yes No _x Depth (inches	s):			
Saturation Present? Yes No _x Depth (inche: (includes capillary fringe)	s):	Wetland Hydrology Prese	nt? Yes Nox	-
Describe Recorded Data (stream gauge, monitoring well, aerial pho	tos, previous inspecti	ons), if available:		
Remarks:				
				1
I				

Tree Stratum (Plot size: 30 ft)		Species?		Number of Dominant Species	
Quercus michauxii, Swamp Chestnut Oak			<u>FACW</u>	That Are OBL, FACW, or FAC:5 (A	١)
2. <u>Liquidambar styraciflua, Sweet-Gum</u>			FAC	Total Number of Dominant	
3. Quercus rubra, Northern Red Oak			<u>FACU</u>	Species Across All Strata: 8 (B	3)
Quercus falcata, Southern Red Oak			<u>FACU</u>	Percent of Dominant Species That Are OBL, FACW, or FAC:62.5% (A	(D)
6				That Are OBL, FACW, OF FAC (A	VB)
		= Total Cov	er	Prevalence Index worksheet:	
50% of total cover: 42.5				Total % Cover of: Multiply by:	
Sapling Stratum (Plot size: 30 ft)				OBL species0 x 1 =0	
1. Quercus falcata, Southern Red Oak	10	Yes	FACU	FACW species x 2 =	
Ulmus americana, American Elm				FAC species75 x 3 =225	
3.				FACU species75 x 4 =300	
4.				UPL species0 x 5 =0	
5				Column Totals: (A) ((B)
6				Prevalence Index = B/A =0.00	
		= Total Cov		Hydrophytic Vegetation Indicators:	
50% of total cover:10	20% of	total cover:	4	1 - Rapid Test for Hydrophytic Vegetation	
Shrub Stratum (Plot size: 30 ft)				x 2 - Dominance Test is >50%	
1. Carya glabra, Pignut Hickory	5	Yes	<u>FACU</u>	3 - Prevalence Index is ≤3.0¹	
2. Ulmus americana, American Elm	5	Yes	FAC	Problematic Hydrophytic Vegetation¹ (Explain)	
3					
4				Indicators of hydric soil and wetland hydrology mus	st
5				be present, unless disturbed or problematic.	
6				Definitions of Five Vegetation Strata:	
	10	= Total Cov	er	Tree – Woody plants, excluding woody vines,	
50% of total cover:5_	20% of	total cover:	2	approximately 20 ft (6 m) or more in height and 3 in.	
Herb Stratum (Plot size: 30 ft)				(7.6 cm) or larger in diameter at breast height (DBH)).
1. Andropogon virginicus, Broom-Sedge	5	Yes	FAC	Sapling – Woody plants, excluding woody vines,	
2				approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.	i
3					
4				Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.	
5					
6				Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody	g
7				plants, except woody vines, less than approximately	,
8		-		3 ft (1 m) in height.	
9				Woody vine - All woody vines, regardless of height	t.
10					
11					
2.5		= Total Cov			
50% of total cover: 2.5	20% of	total cover:	1		
Woody Vine Stratum (Plot size: 30 ft)	20	V	FACIL		
1. Parthenocissus quinquefolia, Virginia-Creeper	30	Yes	FACU		
2. Smilax rotundifolia, Horsebrier	10	No	FAC		
3. Vitis rotundifolia, Muscadine	10	No	FAC		
4. Toxicodendron radicans, Eastern Poison Ivy	10	<u>No</u>	<u>FAC</u>		
5				Hydrophytic	
E00/ -51-1-1 20		= Total Cov		Vegetation Present? Yes × No	
50% of total cover: 30		total cover:			
Remarks: (If observed, list morphological adaptations belo	W).				

SOIL Sampling Point: JD W 006 UP

Depth	scription: (Describe Matrix			x Feature				,	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remark	<u>s</u>
0-7	10YR 3/3	100%					Loam		
7-20	10YR 5/4	100%					Clay loam		
				_					
1T. max. C=0	- ————————————————————————————————————		Daduard Matrix M	C-Maaka	d Cond Cr		21 asstica: DI = D	ore Lining, M=Ma	-4mix
	Indicators: (Applic					all15.	Indicators for Pi		
Histoso			Polyvalue Be			RR S. T. U			
	Epipedon (A2)		Thin Dark Su				· 	A10) (LRR S)	
	Histic (A3)		Loamy Muck	-		O)			e MLRA 150A,B)
	en Sulfide (A4)		Loamy Gleye		(F2)				9) (LRR P, S, T)
_	ed Layers (A5) c Bodies (A6) (LRR F	D T III	Depleted Ma Redox Dark		E6)		Anomalous E (MLRA 15	Bright Loamy Soil ৪৪১	s (F20)
_	lucky Mineral (A7) (L		Depleted Da	,	,		•	Material (TF2)	
	Presence (A8) (LRR I		Redox Depre					Dark Surface (T	F12)
1 cm N	luck (A9) (LRR P, T)		Marl (F10) (L	-			Other (Expla	in in Remarks)	
	ed Below Dark Surfac	ce (A11)	Depleted Oc	, ,			3		
)ark Surface (A12) Prairie Redox (A16) (MI PA 150A)	Iron-Mangan Umbric Surfa		, , ,		•	of hydrophytic ve ydrology must be	•
	Mucky Mineral (S1) (Delta Ochric			, 0,		sturbed or problem	•
	Gleyed Matrix (S4)	, ,	Reduced Ve			0A, 150B)		·	
	Redox (S5)		Piedmont Flo						
	d Matrix (S6)	O T II)	Anomalous E	Bright Loai	my Soils (I	F20) (MLR A	A 149A, 153C, 153E	0)	
	urface (S7) (LRR P, Layer (if observed)						Γ		
	Layer (II observed)								
	nches):						Hydric Soil Prese	ent? Yes	No×
Remarks:	1011007.						, and con i i oo		
rtomants.									

Date: 5/5/21

Feature Name: JD_W_006 UP





Photograph Direction North

Comments: None.

Photograph Direction South

Comments: None.





Photograph Direction East

Comments:

None.

Photograph Direction West

Comments: None.

Project/Site: Dominion CVOW	City/County: Virgini	a Beach/Virginia Beach	Sampling Date: 5/1	17/2021	
Applicant/Owner: Dominion		State: VA	Sampling Point: JD_W_0)15	
Investigator(s): J. D'Augustine, K. Walls	Section, Township,	Range:			
Landform (hillslope, terrace, etc.): Floodplain				1	
Subregion (LRR or MLRA): MLRA 153B of LRR T Lat:	36.818569	9 Long:	-75.98849 Datum: WC	3S84	
Soil Map Unit Name: 32 - Rappahannock mucky peat, strongly saline					
Are climatic / hydrologic conditions on the site typical for this time of y					
Are Vegetation, Soil, or Hydrology significantly)	
Are Vegetation, Soil, or Hydrology naturally pr		f needed, explain any an			
SUMMARY OF FINDINGS – Attach site map showing		t locations, transe	cts, important features	s, etc.	
Hydrophytic Vegetation Present?	is the Sailib		× No		
Wetland Hydrology Present? Yesx No Remarks:					
			Observed Classifications Cowardin:	- 1	
HYDROLOGY					
Wetland Hydrology Indicators:		Secondary In	dicators (minimum of two requ	uired)	
Primary Indicators (minimum of one is required; check all that apply))	Surface S	Soil Cracks (B6)		
Surface Water (A1) X Aquatic Fauna (B	13)	Sparsely	Vegetated Concave Surface	(B8)	
x High Water Table (A2) Marl Deposits (B1	5) (LRR U)				
x Saturation (A3) Hydrogen Sulfide	Odor (C1)	Moss Trim Lines (B16)			
Water Marks (B1) Oxidized Rhizospl	heres along Living Ro	Roots (C3) Dry-Season Water Table (C2)			
Sediment Deposits (B2) Presence of Redu	ed Iron (C4) Crayfish Burrows (C8)				
Drift Deposits (B3) Recent Iron Redu	ction in Tilled Soils (C	tion in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4) Thin Muck Surface	e (C7)	_x Geomorp	hic Position (D2)		
Iron Deposits (B5) Other (Explain in F	Remarks)		Aquitard (D3)		
Inundation Visible on Aerial Imagery (B7)		_x_ FAC-Neu	tral Test (D5)		
Water-Stained Leaves (B9)		Sphagnu	m moss (D8) (LRR T, U)		
Field Observations:					
Surface Water Present? Yes Nox Depth (inches					
Water Table Present? Yesx No Depth (inches					
Saturation Present? Yes _ x No Depth (inches (includes capillary fringe)	s):	Wetland Hydrology Pre	sent? Yesx No	—	
Describe Recorded Data (stream gauge, monitoring well, aerial phot	tos, previous inspecti	ons), if available:			
Remarks:	h 20 f				
Small fiddler crabs observed along wetland area. Open water of	bserved within 20 fo	eet of data point.			
İ				1	

	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft)	% Cover Species? Status	Number of Dominant Species
		That Are OBL, FACW, or FAC:2 (A)
2		Total Number of Dominant
3		Species Across All Strata: 2 (B)
4		Percent of Dominant Species
5		That Are OBL, FACW, or FAC:100.0% (A/B)
6		Barrel and the desired to
	0 = Total Cover	Prevalence Index worksheet:
50% of total cover: 0	20% of total cover:0	Total % Cover of: Multiply by:
Sapling Stratum (Plot size: 30 ft)		OBL species x 1 = 0
1. <u>N/A</u>		FACW species80 x 2 =160
2.		FAC species15 x 3 =45
3.		FACU species 0 x 4 = 0
4.		UPL species0 x 5 =0
5.		Column Totals:95 (A)205 (B)
6		Previolence Index - B/A - 2.16
	0 = Total Cover	Prevalence Index = B/A = 2.16 Hydrophytic Vegetation Indicators:
50% of total cover: 0	20% of total cover:0	1
Shrub Stratum (Plot size: 30 ft)		1 - Rapid Test for Hydrophytic Vegetation
1. Morella cerifera, Southern Bayberry	15 Ves FAC	X 2 - Dominance Test is >50%
		X 3 - Prevalence Index is ≤3.0¹
2		Problematic Hydrophytic Vegetation¹ (Explain)
3		
4		Indicators of hydric soil and wetland hydrology must
5		be present, unless disturbed or problematic.
6		Definitions of Five Vegetation Strata:
	15 = Total Cover	Tree – Woody plants, excluding woody vines,
	20% of total cover:3	approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: 30 ft)		(7.6 cm) or larger in diameter at breast height (DBH).
	80 Yes FACW	Sapling – Woody plants, excluding woody vines,
2		approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
3		than 6 m. (7.5 cm) BBH.
4		Shrub – Woody plants, excluding woody vines,
5		approximately 3 to 20 ft (1 to 6 m) in height.
6		Herb – All herbaceous (non-woody) plants, including
7		herbaceous vines, regardless of size, <u>and</u> woody plants, except woody vines, less than approximately
8		3 ft (1 m) in height.
9		Mindred Allerander Services
10		Woody vine – All woody vines, regardless of height.
11		
	80 = Total Cover	
50% of total cover: 40	20% of total cover: 16	
Woody Vine Stratum (Plot size: 30 ft)		
1. <u>N/A</u>		
2		
3		
4		
5		Hydrophytic Vegetation
500/ 51/1		Present? Yes x No No
	20% of total cover:0	
Remarks: (If observed, list morphological adaptations below	N).	

Sampling Point: JD W 015

SolL Sampling Point: JD_W_015

Profile Des	cription: (Describe	to the depth	needed to docu	ment the i	ndicator	or confirm	the absence of	indicators.)
Depth	Matrix			x Feature		. 2		
(inches)	Color (moist)	<u> </u>	Color (moist)	%	_Type'	Loc ²	Texture	Remarks
0-12	10YR 3/1						Clay loam	
12-20	GLY1 4/1	100%					Clay loam	
				- ——				
¹ Type: C=C	oncentration, D=Dep	letion, RM=R	educed Matrix, M	S=Masked	l Sand Gr	ains.	² Location: Pl	L=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applic	able to all Li	RRs, unless othe	rwise note	ed.)		Indicators fo	r Problematic Hydric Soils³:
Histoso	I (A1)		Polyvalue Be	elow Surfa	ce (S8) (L	RR S, T, U) 1 cm Muc	ck (A9) (LRR O)
	pipedon (A2)		Thin Dark Si					ck (A10) (LRR S)
_	listic (A3)		Loamy Muck	-		(O)		Vertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)		Loamy Gley Depleted Ma		F2)			Floodplain Soils (F19) (LRR P, S, T)
ı —	d Layers (A5) : Bodies (A6) (LRR P	T 11)	Redox Dark	. ,	:6)		(MLRA	us Bright Loamy Soils (F20)
_ ~	ucky Mineral (A7) (LI	, , ,	× Depleted Da	,	,		,	ent Material (TF2)
ı —	resence (A8) (LRR L		Redox Depr					llow Dark Surface (TF12)
ı —	uck (A9) (LRR P, T)	,	Marl (F10) (I	,	-,		_ ′	plain in Remarks)
Deplete	d Below Dark Surfac	e (A11)	Depleted Oc	hric (F11)	(MLRA 1	51)		
ı —	ark Surface (A12)		Iron-Mangar				•	ors of hydrophytic vegetation and
ı —	Prairie Redox (A16) (I		Umbric Surfa			, U)		nd hydrology must be present,
	Mucky Mineral (S1) (I Gleyed Matrix (S4)	LKK (), (S)	Delta Ochric Reduced Ve			OA 450B)	uniess	disturbed or problematic.
	Redox (S5)		Piedmont Fl				9A)	
ı —	d Matrix (S6)						A 149A, 153C, 1	53D)
	urface (S7) (LRR P, \$	S, T, U)	_		•	, .	, ,	,
Restrictive	Layer (if observed)							
Туре:								
Depth (in	nches):						Hydric Soil Pr	esent? Yesx No
Remarks:								
1								

Date: 5/17/21







Photograph Direction NE

Comments:

Photograph Direction NW

Comments:





Photograph Direction SE

Comments:

Photograph Direction SW

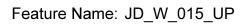
Project/Site: Dominion CVOW		City/County: Virgin	ia Beach/Virginia Beach	_ Sampling Date:5/17/2021
Applicant/Owner: Dominion			State: VA	Sampling Point: JD W 015 UP
Investigator(s): J. D'Augustine, K. Walls		Section, Township,	Range:	
Landform (hillslope, terrace, etc.): Hillslope				
Subregion (LRR or MLRA): MLRA 153B of LR				
			NWI classifi	
Are climatic / hydrologic conditions on the sit				
Are Vegetation, Soil, or Hydr			Are "Normal Circumstances"	present? Yesx No
Are Vegetation, Soil, or Hydr	ology naturally pr	roblematic? (If needed, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS - Attac	h site map showing	g sampling poir	nt locations, transect	s, important features, etc.
	esx No	IS LITE SAITIF	oled Area	
	es Nox	within a We	etland? Yes	No×
Wetland Hydrology Present? Y Remarks:	es Nox			
Remarks.				Observed Classifications:
				Cowardin:
HYDROLOGY				
			Casandan, India	ntara (minimum of two required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one is requ	ired: check all that apply)			ators (minimum of two required)
				Cracks (B6)
Surface Water (A1)	Aquatic Fauna (B'			egetated Concave Surface (B8)
High Water Table (A2) Saturation (A3)	Marl Deposits (B1Hydrogen Sulfide		Moss Trim I	atterns (B10)
Water Marks (B1)	Oxidized Rhizospl		_	Water Table (C2)
Sediment Deposits (B2)	Presence of Redu		Crayfish Bu	, ,
Drift Deposits (B3)	Recent Iron Redu			/isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Thin Muck Surface		_	c Position (D2)
Iron Deposits (B5)	Other (Explain in I	. ,	Shallow Aq	` '
Inundation Visible on Aerial Imagery (E		,	FAC-Neutra	
Water-Stained Leaves (B9)			Sphagnum	moss (D8) (LRR T, U)
Field Observations:				
Surface Water Present? Yes	Nox Depth (inches	s):		
Water Table Present? Yes	Nox Depth (inches	s):		
Saturation Present? Yes	Nox Depth (inches		Wetland Hydrology Prese	nt? Yes Nox
(includes capillary fringe) Describe Recorded Data (stream gauge, m	onitoring well, aerial phot	tos previous inspect	ions) if available:	
Beschibe Nesoraeu Bata (Stream gauge, III	ormorning wen, derial prior	ios, previous inspect	ions), ii avallable.	
Remarks:				
Nonano.				
1				

		Dominant		Dominance Test worksheet:		
Tree Stratum (Plot size: 30 ft)		Species?		Number of Dominant Species	0	
1. Pinus taeda, Loblolly Pine	40	<u>Yes</u>	<u>FAC</u>	That Are OBL, FACW, or FAC:	8	(A)
2. Acer rubrum, Red Maple	20	<u>Yes</u>	<u>FAC</u>	Total Number of Dominant		
3. <u>Liquidambar styraciflua, Sweet-Gum</u>	15	<u>Yes</u>	FAC	Species Across All Strata:	11	(B)
4				Description of Control		
5				Percent of Dominant Species That Are OBL, FACW, or FAC:	72.7%	(Δ/R)
6				That A C OBE, I ACTU, OF I AC.		(700)
		= Total Cov		Prevalence Index worksheet:		
50% of total cover: 37.5				Total % Cover of:	Multiply by:	_
	20 70 01	total cover		OBL species0 x 1	1 =0	_
Sapling Stratum (Plot size: 30 ft)	10	V	FAC	FACW species0 x 2		
1. <u>Liquidambar styraciflua, Sweet-Gum</u>				FAC species115 x 3		_
2. <u>Carya glabra, Pignut Hickory</u>		Yes		FACU species 20 x 4		_
3. Carpinus caroliniana, American Hornbeam	5	<u>Yes</u>	<u>FAC</u>	UPL species 0 x 5		
4						
5				Column Totals:135 (A)	425	_ (B)
6				Prevalence Index = B/A =	3.15	
i e		= Total Cov	/er	Hydrophytic Vegetation Indicat		
50% of total cover: <u>12.5</u>	20% of	total cover	: 5			
Shrub Stratum (Plot size: 30 ft)		10101 00101		1 - Rapid Test for Hydrophyti		
1. Liquidambar styraciflua, Sweet-Gum	15	Voc	EAC	X 2 - Dominance Test is >50%		
				3 - Prevalence Index is ≤3.01		
2. Quercus falcata, Southern Red Oak				Problematic Hydrophytic Veg	getation¹ (Explai	n)
3. <u>Vaccinium angustifolium, Late Lowbush Blueberry</u>						
4				¹ Indicators of hydric soil and wetla		nust
5				be present, unless disturbed or pr	roblematic.	
6				Definitions of Five Vegetation S	Strata:	
	25	= Total Cov	er er	Tree - Woody plants, excluding w	woody vines	
50% of total cover:12.5	20% of	total cover	:5	approximately 20 ft (6 m) or more		in.
Herb Stratum (Plot size: 30 ft)				(7.6 cm) or larger in diameter at b	oreast height (D	BH).
1. <u>N/A</u>				Sapling – Woody plants, excluding	na woody vines	
2.				approximately 20 ft (6 m) or more		
3.				than 3 in. (7.6 cm) DBH.	-	
I .				Shrub – Woody plants, excluding	woody vines	
4				approximately 3 to 20 ft (1 to 6 m)		
5						
6				Herb – All herbaceous (non-wood herbaceous vines, regardless of s		
7				plants, except woody vines, less t		
8				3 ft (1 m) in height.		•
9				Woody vine – All woody vines, re	agardless of hei	iaht
10				VVOody Ville - All Woody Villes, 10	egardiess of fiel	igiit.
11						
	0	= Total Cov	er er			
50% of total cover: 0	20% of	total cover	: 0			
Woody Vine Stratum (Plot size: 30 ft)	_					
1. Vitis rotundifolia, Muscadine	5	Yes	FAC			
I .						
2. Smilax rotundifolia, Horsebrier						
3						
4						
5				Hydrophytic		
		= Total Cov		Vegetation Present? Yesx	No	
50% of total cover:5_	20% of	total cover	2	Liezenti Les	NO	
Remarks: (If observed, list morphological adaptations belo	w).			1		

SOIL Sampling Point: <u>JD_W_015_UP</u>

						or commi	the absence of i	ndicators.)
Depth (inches)	Matrix Color (moist)	~ ~	Color (moist)	x Feature: %	Type ¹	Loc ²	Texture	Remarks
0-4	10YR 3/2	100%	,		.,,,,,		Loam	
		100%						
4-20	10YR 5/4						Loam	
	Concentration, D=Dep					ains.		=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applic	cable to all L						Problematic Hydric Soils ³ :
Histoso			Polyvalue Be				· —	
	Epipedon (A2)		Thin Dark Su					((A10) (LRR S)
	listic (A3) en Sulfide (A4)		Loamy Muck Loamy Gleye	-		(0)		/ertic (F18) (outside MLRA 150A, Floodplain Soils (F19) (LRR P, S, '
	ed Layers (A5)		Depleted Ma	,	r2)			s Bright Loamy Soils (F20)
_	Bodies (A6) (LRR F	P. T. U)	Redox Dark		6)		(MLRA 1	
	ucky Mineral (A7) (L		Depleted Da	,	,		•	nt Material (TF2)
	resence (A8) (LRR L		Redox Depre	essions (F	8)		Very Shalle	ow Dark Surface (TF12)
1 cm M	uck (A9) (LRR P, T)		Marl (F10) (L	.RR U)			Other (Exp	olain in Remarks)
	ed Below Dark Surfac	e (A11)	Depleted Oc	, ,	•	•		
	ark Surface (A12)		Iron-Mangan				•	rs of hydrophytic vegetation and
ı —	Prairie Redox (A16) (· —	. ,		, U)		hydrology must be present,
	Mucky Mineral (S1) (LRR O, S)	Delta Ochric			OA 450E)	unless	disturbed or problematic.
	Gleyed Matrix (S4) Redox (S5)		Reduced Ver	, , ,			9Δ)	
	d Matrix (S6)						A 149A, 153C, 15	3D)
	urface (S7) (LRR P,	S. T. U)	/ aromarodo E	origine 20ai	,	20) (210		
	Layer (if observed)							
Type:								
· · · ·							Unidaia Cail Das	
Depth (ir	nches):						Hydric Soil Pre	sent? Yes No x
	nches):						nyaric Soil Pre	sent? Yes Nox
Depth (ir Remarks:	nches):						Hydric Soil Pre	sent? Yes No*_
	nches):		_				Hydric Soli Pre	sent? Yes No <u>*</u>
	nches):		_				Hydric Soil Pre	sent? Yes No <u>*</u>
	nches):						Hydric Soil Pre	sent? Yes No <u>*</u>
	nches):						Hydric Soli Pre	sent? Yes No <u>*</u>
	nches):						Hydric Soli Pre	sent? Yes No <u>*</u>
	nches):						Hydric Soll Pre	sent? Yes No <u>*</u>
	nches):						Hydric Soll Pre	sent? Yes No _*
	nches):						Hydric Soil Pre	sent? Yes No _*
	nches):						Hydric Soll Pre	sent? Yes No _*
	nches):						Hydric Soil Pre	sent? Yes No _*
	nches):						Hydric Soil Pre	sent? Yes No _*
	nches):						Hydric Soil Pre	sent? Yes No _*
	nches):						Hydric Soil Pre	sent? Yes No _*
	nches):						Hydric Soil Pre	sent? Yes No _*
	nches):						Hydric Soil Pre	sent? Yes No _*
	nches):						Hydric Soil Pre	sent? Yes No _*
• •	nches):						Hydric Soil Pre	sent? Yes No*
	nches):						Hydric Soil Pre	sent? Yes No*
• •	nches):						Hydric Soil Pre	sent? Yes No*_
• •	nches):						Hydric Soil Pre	sent? Yes No*
	nches):						Hydric Soil Pre	sent? Yes No*

Date: 5/17/21







Photograph Direction NE

Comments:

Photograph Direction SW

Comments:





Photograph Direction West

Comments:

Photograph Direction SE

Project/Site: Dominion CVOW	City/County: Virgini	a Beach/Virginia Bea	ach Sampling Date:	5/17/2021
Applicant/Owner: Dominion		State: <u>VA</u>	Sampling Point: J[O_W_016
Investigator(s): J. D'Augustine, K. Walls	Section, Township,	Range:		
Landform (hillslope, terrace, etc.): Flatwoods				(%): 2
Subregion (LRR or MLRA): MLRA 153B of LRR T Lat:				
Soil Map Unit Name: 1 - Acredale silt loam				
Are climatic / hydrologic conditions on the site typical for this time of ye				
Are Vegetation, Soil, or Hydrology significantly				No
Are Vegetation, Soil, or Hydrology naturally pr			answers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map showing			,	itures, etc.
Hydrophytic Vegetation Present? Yesx No Hydric Soil Present? Yesx No Wetland Hydrology Present? Yesx No	is the Samb		sx No	
Remarks:			Observed Classifi Cowardin:	
HYDROLOGY				
Wetland Hydrology Indicators:		Secondary	Indicators (minimum of tv	vo required)
Primary Indicators (minimum of one is required; check all that apply))	Surfac	e Soil Cracks (B6)	
Surface Water (A1) Aquatic Fauna (B1	13)	Sparse	ely Vegetated Concave Su	urface (B8)
High Water Table (A2) Marl Deposits (B1	5) (LRR U)	Draina	ge Patterns (B10)	
Saturation (A3) Hydrogen Sulfide	Odor (C1)	Moss	Trim Lines (B16)	
Water Marks (B1) Oxidized Rhizosph	heres along Living Ro		eason Water Table (C2)	
Sediment Deposits (B2) Presence of Redu	ced Iron (C4)	_x_ Crayfis	sh Burrows (C8)	
Drift Deposits (B3) Recent Iron Reduc	ction in Tilled Soils (C	,	tion Visible on Aerial Imaç	gery (C9)
Algal Mat or Crust (B4) Thin Muck Surface	e (C7)	_x Geom	orphic Position (D2)	
Iron Deposits (B5) Other (Explain in F	Remarks)		w Aquitard (D3)	
Inundation Visible on Aerial Imagery (B7)		_x_ FAC-N	leutral Test (D5)	
Water-Stained Leaves (B9)		Sphag	num moss (D8) (LRR T, l	J)
Field Observations:				
Surface Water Present? Yes Nox Depth (inches	s):			
Water Table Present? Yes Nox Depth (inches	s):			
Saturation Present? Yes Nox Depth (inches (includes capillary fringe)	s):	Wetland Hydrology F	Present? Yesx	No
Describe Recorded Data (stream gauge, monitoring well, aerial phot	tos, previous inspecti	ons), if available:		
Remarks:				

		Dominant		Dominance Test worksheet:	
<u>Tree Stratum</u> (Plot size: <u>30 ft</u>)		Species?		Number of Dominant Species	
1. Quercus alba, Northern White Oak	30	<u>Yes</u>	<u>FACU</u>	That Are OBL, FACW, or FAC:8 (A)	
2. Acer rubrum, Red Maple		<u>Yes</u>	<u>FAC</u>	Total Number of Dominant	
3. Nyssa sylvatica, Black Tupelo	10	No	FAC	Species Across All Strata: 9 (B)	
4				Donard of Donain and Consider	
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 88.9% (A/E	3)
6				That 740 052, 171000, 01 1710.	
	55	= Total Cov	er	Prevalence Index worksheet:	
50% of total cover: <u>27.5</u>				Total % Cover of: Multiply by:	
Sapling Stratum (Plot size: 30 ft)	207001	10101 00701		OBL species0 x 1 =0	
1. Acer rubrum, Red Maple	20	Voc	EAC	FACW species70 x 2 =140	
				FAC species 100 x 3 = 300	
2. <u>Liquidambar styraciflua, Sweet-Gum</u>		Yes		FACU species30 x 4 =120	
3. Nyssa sylvatica, Black Tupelo		<u>No</u>	<u>FAC</u>	UPL species0 x 5 =0	
4				Column Totals: 200 (A) 560 (B	a
5				Coldina Totals. <u>200</u> (A) <u>300</u> (B	,
6				Prevalence Index = B/A =2.80	
	55	= Total Cov	er	Hydrophytic Vegetation Indicators:	
50% of total cover: 27.5	20% of	total cover	11	1 - Rapid Test for Hydrophytic Vegetation	
Shrub Stratum (Plot size: 30 ft)				x 2 - Dominance Test is >50%	
1. <u>Liquidambar styraciflua, Sweet-Gum</u>	15	Yes	FAC	X 3 - Prevalence Index is ≤3.0¹	
2. Pinus taeda, Loblolly Pine	_	Yes	FAC	1 -	
3				Problematic Hydrophytic Vegetation¹ (Explain)	
4				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
5					
6				Definitions of Five Vegetation Strata:	
		= Total Cov		Tree – Woody plants, excluding woody vines,	
50% of total cover:10_	20% of	total cover	4	approximately 20 ft (6 m) or more in height and 3 in.	
Herb Stratum (Plot size: 30 ft)				(7.6 cm) or larger in diameter at breast height (DBH).	
Zephyranthes atamasca, Atamasco-Lily	30	<u>Yes</u>	FACW	Sapling – Woody plants, excluding woody vines,	
2. Galium tinctorium, Stiff Marsh Bedstraw	20	Yes	FACW	approximately 20 ft (6 m) or more in height and less	
3. <u>Dichanthelium clandestinum</u> , <u>Deer-Tongue Rosette</u> (<u>3 20 </u>	Yes	FACW	than 3 in. (7.6 cm) DBH.	
4.				Shrub – Woody plants, excluding woody vines,	
5.				approximately 3 to 20 ft (1 to 6 m) in height.	
6				Herb – All herbaceous (non-woody) plants, including	
				herbaceous vines, regardless of size, and woody	
7				plants, except woody vines, less than approximately	
8				3 ft (1 m) in height.	
9				Woody vine - All woody vines, regardless of height.	
10					
11					
	70	= Total Cov	er		
50% of total cover:35_	20% of	total cover	14		
Woody Vine Stratum (Plot size: 30 ft)					
1. N/A					
2					
3					
4					
5				Hydrophytic	
	0	= Total Cov	er	Vegetation Present? Yes × No	
50% of total cover:0	20% of	total cover	0	Present? Yes No	
Remarks: (If observed, list morphological adaptations below	w).				

Sampling Point: JD W 016

SolL Sampling Point: JD_W_016

Profile Des	cription: (Describe	to the depth	needed to docur	ment the i	ndicator	or confirm	the absence of i	indicators.)
Depth	Matrix			x Features				
(inches)	Color (moist)		Color (moist)	%	Type'	Loc ²	<u>Texture</u>	Remarks
0-2	10YR 4/2	100%					Clay loam	
2-20	10YR 6/1	80% 1	0YR 5/6	20%	C	M	Clay loam	
¹ Type: C=C	Concentration, D=Dep	letion, RM=F	Reduced Matrix, M	S=Masked	Sand Gr	ains.	² Location: PL	=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applic	able to all L	RRs, unless othe	rwise note	ed.)		Indicators for	Problematic Hydric Soils ³ :
Histoso	l (A1)		Polyvalue Be	elow Surfac	ce (S8) (L	.RR S, T, U) 1 cm Mucl	k (A9) (LRR O)
1	pipedon (A2)		Thin Dark Su					k (A10) (LRR S)
_	listic (A3)		Loamy Muck	-		l O)		Vertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)		Loamy Gleye	,	F2)			Floodplain Soils (F19) (LRR P, S, T) is Bright Loamy Soils (F20)
ı —	d Layers (A5) Bodies (A6) (LRR P	T 11)	Depleted Ma Redox Dark		·6)		(MLRA	. , ,
_ ~	ucky Mineral (A7) (LF	, , ,	× Depleted Da	`	,		•	nt Material (TF2)
ı —	resence (A8) (LRR U		Redox Depre					low Dark Surface (TF12)
1 cm M	uck (A9) (LRR P, T)		Marl (F10) (L	.RR U)			Other (Exp	plain in Remarks)
Deplete	d Below Dark Surfac	e (A11)	Depleted Oc	, ,	•	•	_	
1 —	ark Surface (A12)		Iron-Mangan				•	rs of hydrophytic vegetation and
I —	Prairie Redox (A16) (N		_	. , ,		', U)		d hydrology must be present,
	Mucky Mineral (S1) (I Gleyed Matrix (S4)	.KK (), (S)	Delta Ochric Reduced Ver		-	ΩΔ 150R)	uniess	disturbed or problematic.
	Redox (S5)		Piedmont Flo				9A)	
I —	d Matrix (S6)						A 149A, 153C, 15	53D)
Dark St	urface (S7) (LRR P, S	s, T, U)						
Restrictive	Layer (if observed):							
Туре:			_					
Depth (ir	nches):						Hydric Soil Pre	esent? Yes <u>x</u> No
Remarks:								

Date: 5/17/21

Feature Name: JD_W_016



Photograph Number ______Photograph Direction SE

Comments:



Photograph Number ______Photograph Direction SW

Comments:



Photograph Number ______
Photograph Direction West_____

Comments:



Photograph Number ______Photograph Direction North_

Project/Site: Dominion CVOW	City/County: Virginia Bo	each/Virginia Beach	Sampling Date: 5/17/2021
Applicant/Owner: Dominion		State: <u>VA</u>	Sampling Point: JD W 016 UP
Investigator(s): J. D'Augustine, K. Walls	Section, Township, Ran	nge:	
Landform (hillslope, terrace, etc.): Hillslope			
Subregion (LRR or MLRA): MLRA 153B of LRR T Lat:	36.819673 L	ong:	-75.990034 Datum: WGS84
Soil Map Unit Name: 1 - Acredale silt loam			
Are climatic / hydrologic conditions on the site typical for this time of y			
Are Vegetation, Soil, or Hydrology significantly			
Are Vegetation, Soil, or Hydrology naturally pr		eded, explain any answe	
SUMMARY OF FINDINGS – Attach site map showing			,
Hydrophytic Vegetation Present? Yesx No			
Hydric Soil Present? Yes No x	is the Sampled		
Wetland Hydrology Present? Yes No x	within a Wetlan	nd? Yes	Nox
Remarks:	·		Observed Classifications:
			Cowardin:
HYDROLOGY			
Wetland Hydrology Indicators:		Cocondany Indias	atora (minimum of two required)
1 01			ators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		Surface Soil	
Surface Water (A1) Aquatic Fauna (B*			getated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B1 Saturation (A3) Hydrogen Sulfide		Drainage Pa Moss Trim L	
	heres along Living Roots	.—	Water Table (C2)
Sediment Deposits (B2) Presence of Redu		Crayfish Bur	
<u> </u>	ction in Tilled Soils (C6)		isible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface	, ,		Position (D2)
Iron Deposits (B5) Other (Explain in I	, ,	Shallow Aqu	
Inundation Visible on Aerial Imagery (B7)	,	FAC-Neutral	` ′
Water-Stained Leaves (B9)		Sphagnum n	moss (D8) (LRR T, U)
Field Observations:			
Surface Water Present? Yes Nox Depth (inches	s):		
Water Table Present? Yes No _x _ Depth (inches	s):		
Saturation Present? Yes Nox Depth (inches	s): We	tland Hydrology Preser	nt? Yes No <u>x</u>
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photographics)	too provious inspections	\ if available:	
Describe Recorded Data (stream gauge, monitoring well, aerial prior	tos, previous irispections,), II avallable.	
Powerker			
Remarks:			
			1
II			l)

		Dominant		Dominance Test worksheet:
		Species?		Number of Dominant Species
1. Quercus alba, Northern White Oak	30	<u>Yes</u>	<u>FACU</u>	That Are OBL, FACW, or FAC:11 (A)
2. Pinus taeda, Loblolly Pine	25	<u>Yes</u>	<u>FAC</u>	Total Number of Dominant
3. Acer rubrum, Red Maple	15	Yes	<u>FAC</u>	Species Across All Strata:13 (B)
4. <u>Liquidambar styraciflua, Sweet-Gum</u>	5	No	FAC	Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 84.6% (A/B)
6				
	75:	= Total Cov	er	Prevalence Index worksheet:
50% of total cover: 37.5	20% of	total cover	15	Total % Cover of: Multiply by:
Sapling Stratum (Plot size: 30 ft)	_			OBL species0 x 1 =0
1. Acer rubrum, Red Maple	5	Yes	FAC	FACW species15 x 2 =30
Liquidambar styraciflua, Sweet-Gum				FAC species 100 x 3 = 300
- N		Yes		FACU species40 x 4 =160
-			TAC	UPL species0 x 5 =0
4				Column Totals: <u>155</u> (A) <u>490</u> (B)
5				
6				Prevalence Index = B/A =3.16
		= Total Cov		Hydrophytic Vegetation Indicators:
50% of total cover:7.5_	_ 20% of	total cover	3	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft)				x 2 - Dominance Test is >50%
1. Nyssa sylvatica, Black Tupelo			<u>FAC</u>	3 - Prevalence Index is ≤3.01
2. Acer rubrum, Red Maple	5	Yes	FAC	Problematic Hydrophytic Vegetation¹ (Explain)
3				
4				¹ Indicators of hydric soil and wetland hydrology must
5				be present, unless disturbed or problematic.
6				Definitions of Five Vegetation Strata:
		= Total Cov	er	
50% of total cover:5	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: 30 ft)	_			(7.6 cm) or larger in diameter at breast height (DBH).
	15	Yes	FACW	Sanling Woody plants evaluding woody vines
Dichanthelium clandestinum, Deer-Tongue Rosette G			FACW_	Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
Dichanthelium clandestinum, Deer-Tongue Rosette G Acer rubrum, Red Maple	10	Yes	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.
Dichanthelium clandestinum, Deer-Tongue Rosette G Acer rubrum, Red Maple Liquidambar styraciflua, Sweet-Gum	10 10	Yes Yes	FAC FAC	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
Dichanthelium clandestinum, Deer-Tongue Rosette G Acer rubrum, Red Maple Liquidambar styraciflua, Sweet-Gum Quercus alba, Northern White Oak	10 10 5	Yes Yes No	FAC FAC FACU	approximately 20 ft (6 m) or more in height and less
Dichanthelium clandestinum, Deer-Tongue Rosette G Acer rubrum, Red Maple Liquidambar styraciflua, Sweet-Gum Quercus alba, Northern White Oak Pinus taeda, Loblolly Pine	10 10 5 5	Yes Yes No No	FAC FAC	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.
Dichanthelium clandestinum, Deer-Tongue Rosette G Acer rubrum, Red Maple Liquidambar styraciflua, Sweet-Gum Quercus alba, Northern White Oak Pinus taeda, Loblolly Pine 6	10 10 5 5	Yes Yes No No	FAC FAC FACU	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
Dichanthelium clandestinum, Deer-Tongue Rosette G Acer rubrum, Red Maple Liquidambar styraciflua, Sweet-Gum Quercus alba, Northern White Oak Pinus taeda, Loblolly Pine	10 10 5 5	Yes Yes No No	FAC FACU FAC	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
Dichanthelium clandestinum, Deer-Tongue Rosette G Acer rubrum, Red Maple Liquidambar styraciflua, Sweet-Gum Quercus alba, Northern White Oak Pinus taeda, Loblolly Pine . .	10 10 5 5	Yes Yes No No	FAC FACU FAC	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
Dichanthelium clandestinum, Deer-Tongue Rosette G Acer rubrum, Red Maple Liquidambar styraciflua, Sweet-Gum Quercus alba, Northern White Oak Pinus taeda, Loblolly Pine	10 10 5 5	Yes Yes No No	FAC FACU FAC	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.
Dichanthelium clandestinum, Deer-Tongue Rosette G Acer rubrum, Red Maple Liquidambar styraciflua, Sweet-Gum Quercus alba, Northern White Oak Pinus taeda, Loblolly Pine . .	10 10 5 5	Yes Yes No No	FAC FACU FAC	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
Dichanthelium clandestinum, Deer-Tongue Rosette G Acer rubrum, Red Maple Liquidambar styraciflua, Sweet-Gum Quercus alba, Northern White Oak Pinus taeda, Loblolly Pine	10 10 5 5	Yes Yes No No	FAC FACU FAC	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.
1. Dichanthelium clandestinum, Deer-Tongue Rosette G 2. Acer rubrum, Red Maple 3. Liquidambar styraciflua, Sweet-Gum 4. Quercus alba, Northern White Oak 5. Pinus taeda, Loblolly Pine 6	10 10 5 5	Yes Yes No No	FAC FACU FAC	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.
1. Dichanthelium clandestinum, Deer-Tongue Rosette G 2. Acer rubrum, Red Maple 3. Liquidambar styraciflua, Sweet-Gum 4. Quercus alba, Northern White Oak 5. Pinus taeda, Loblolly Pine 6	10 10 5 5	Yes Yes No No Total Cov	FAC FACU FAC	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.
1. Dichanthelium clandestinum, Deer-Tongue Rosette G 2. Acer rubrum, Red Maple 3. Liquidambar styraciflua, Sweet-Gum 4. Quercus alba, Northern White Oak 5. Pinus taeda, Loblolly Pine 6	10 10 5 5	Yes Yes No No Total Cov	FAC FACU FAC	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.
1. Dichanthelium clandestinum, Deer-Tongue Rosette G 2. Acer rubrum, Red Maple 3. Liquidambar styraciflua, Sweet-Gum 4. Quercus alba, Northern White Oak 5. Pinus taeda, Loblolly Pine 6	10 10 5 5	Yes Yes No No Total Covertotal cover	FAC FACU FAC FAC FAC 9	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.
1. Dichanthelium clandestinum, Deer-Tongue Rosette G 2. Acer rubrum, Red Maple 3. Liquidambar styraciflua, Sweet-Gum 4. Quercus alba, Northern White Oak 5. Pinus taeda, Loblolly Pine 6	10 5 5 5 45 20% of	Yes Yes No No Total Covertotal cover	FAC FACU FAC FAC FAC FAC FAC FAC F	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.
1. Dichanthelium clandestinum, Deer-Tongue Rosette G 2. Acer rubrum, Red Maple 3. Liquidambar styraciflua, Sweet-Gum 4. Quercus alba, Northern White Oak 5. Pinus taeda, Loblolly Pine 6	10 5 5 5 45 20% of 5	Yes Yes No No Total Covertotal cover Yes Yes	FAC FACU FAC FAC FAC FAC FAC FAC F	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.
1. Dichanthelium clandestinum, Deer-Tongue Rosette G 2. Acer rubrum, Red Maple 3. Liquidambar styraciflua, Sweet-Gum 4. Quercus alba, Northern White Oak 5. Pinus taeda, Loblolly Pine 6	10 5 5 5 45 20% of	Yes Yes No No Total Covertotal cover Yes Yes	FAC FACU FAC FAC FAC FAC FAC FAC F	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.
1. Dichanthelium clandestinum, Deer-Tongue Rosette G 2. Acer rubrum, Red Maple 3. Liquidambar styraciflua, Sweet-Gum 4. Quercus alba, Northern White Oak 5. Pinus taeda, Loblolly Pine 6	10 5 5 5 45 20% of	Yes Yes No No Total Covertotal cover Yes Yes	FAC FACU FAC FAC FAC FAC FAC FAC F	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.
1. Dichanthelium clandestinum, Deer-Tongue Rosette G 2. Acer rubrum, Red Maple 3. Liquidambar styraciflua, Sweet-Gum 4. Quercus alba, Northern White Oak 5. Pinus taeda, Loblolly Pine 6	10 5 5 5 - 20% of 5	Yes Yes No No Total Covertotal cover Yes Yes	FAC FACU FAC FAC FAC FAC FAC FAC F	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.
1. Dichanthelium clandestinum, Deer-Tongue Rosette G 2. Acer rubrum, Red Maple 3. Liquidambar styraciflua, Sweet-Gum 4. Quercus alba, Northern White Oak 5. Pinus taeda, Loblolly Pine 6	10 10 5 5 5 45 20% of 5	Yes Yes No No No Total Cover Yes Yes Total Cover	FAC FACU FAC FACU FAC FACU FAC FACU FAC FACU FAC FACU FAC	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.
1. Dichanthelium clandestinum, Deer-Tongue Rosette G 2. Acer rubrum, Red Maple 3. Liquidambar styraciflua, Sweet-Gum 4. Quercus alba, Northern White Oak 5. Pinus taeda, Loblolly Pine 6	10 5 5 5 45 20% of 5 10	Yes Yes No No No Total Cover Yes Yes Total Cover	FAC FACU FAC FACU FAC FACU FAC FACU FAC FACU FAC FACU FAC	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
1. Dichanthelium clandestinum, Deer-Tongue Rosette G 2. Acer rubrum, Red Maple 3. Liquidambar styraciflua, Sweet-Gum 4. Quercus alba, Northern White Oak 5. Pinus taeda, Loblolly Pine 6	10 5 5 5 45 20% of 5 10	Yes Yes No No No Total Cover Yes Yes Total Cover	FAC FACU FAC FACU FAC FACU FAC FACU FAC FACU FAC FACU FAC	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
1. Dichanthelium clandestinum, Deer-Tongue Rosette G 2. Acer rubrum, Red Maple 3. Liquidambar styraciflua, Sweet-Gum 4. Quercus alba, Northern White Oak 5. Pinus taeda, Loblolly Pine 6	10 5 5 5 45 20% of 5 10	Yes Yes No No No Total Cover Yes Yes Total Cover	FAC FACU FAC FACU FAC FACU FAC FACU FAC FACU FAC FACU FAC	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

SOIL Sampling Point: JD W 016 UP

Profile Des	cription: (Describe	e to the depth	needed to docu	ment the i	ndicator	or confirm	the absence of in	ndicators.)
Depth	Matrix			ox Features				
(inches)	Color (moist)		Color (moist)	%	_Type'	Loc ²	Texture	Remarks
0-3	10YR 3/2	100%					Loam	
3-7	10YR 5/3	100%					Loam	
7-20	10YR 5/4	100%					Loam	
1								
	Concentration, D=De Indicators: (Appli					ains.		Pore Lining, M=Matrix. Problematic Hydric Soils ³ :
1 -		Cable to all Lr				DD 0 T 11)		
Histoso	pi (A1) Epipedon (A2)		Polyvalue B Thin Dark S					(A10) (LRR S)
	listic (A3)		Loamy Muck					ertic (F18) (outside MLRA 150A,B)
_	en Sulfide (A4)		Loamy Gley	-		-,		loodplain Soils (F19) (LRR P, S, T)
Stratifie	d Layers (A5)		Depleted Ma	atrix (F3)			Anomalous	Bright Loamy Soils (F20)
	Bodies (A6) (LRR		Redox Dark	,	,		(MLRA 1	•
	ucky Mineral (A7) (L		Depleted Da					Material (TF2)
ı —	resence (A8) (LRR uck (A9) (LRR P, T)	,	Redox Depr Marl (F10) (I		8)			w Dark Surface (TF12) ain in Remarks)
_	ed Below Dark Surfa		Depleted Oc		(MLRA 1	51)	Other (Expi	all III (Ciliaiks)
1 — .	ark Surface (A12)	()	Iron-Mangar	, ,	•	,	Γ) ³ Indicators	of hydrophytic vegetation and
I —	Prairie Redox (A16)		Umbric Surfa			, U)		hydrology must be present,
	Mucky Mineral (S1)	(LRR O, S)	Delta Ochric				unless d	listurbed or problematic.
	Gleyed Matrix (S4)		Reduced Ve) A)	
I —	Redox (S5) d Matrix (S6)		Piedmont FI Anomalous				, A) A 149A, 153C, 153	(D)
1 —	urface (S7) (LRR P,	S, T, U)		erigin Eoui	,	20) (210		-,
	Layer (if observed							
Type:			_					
Depth (ir	nches):						Hydric Soil Pres	sent? Yes No×
Remarks:								

Date: 5/17/21

Feature Name: JD_W_016_UP





Photograph Direction South

Comments:

Photograph Direction North

Comments:





Photograph Direction West

Comments:

Photograph Direction East

Project/Site: Dominion CVOW	!	City/C	County: Virginia Beach	/Virginia Beach	Sampling Date:	5/18/2021
Applicant/Owner: Dominion				State: VA	Sampling Point: <u>J</u> [)_W_019
Investigator(s): J. D'Augustine,	, K. Walls	Section	on, Township, Range: _			
Landform (hillslope, terrace, etc						(%): 2
Subregion (LRR or MLRA): MLI						
Soil Map Unit Name: 32 - Rappah						III. <u>*******</u>
Are climatic / hydrologic condition	ons on the site typical for	this time of year? Y	′esx No	(If no, explain in R	Remarks.)	
Are Vegetation, Soil		-				No
Are Vegetation, Soil				explain any answe		
SUMMARY OF FINDING					,	itures, etc.
Hydrophytic Vegetation Prese		No				
Hydrophytic Vegetation Prese Hydric Soil Present?		No	Is the Sampled Area			
Wetland Hydrology Present?		No	within a Wetland?	Yesx	No	
Remarks:					Observed Classifi Cowardin:	
HYDROLOGY						
Wetland Hydrology Indicato	rs:			Secondary Indica	ators (minimum of tv	vo required)
Primary Indicators (minimum o	of one is required; check	all that apply)		Surface Soil	Cracks (B6)	
Surface Water (A1)	_x_ Aqua	atic Fauna (B13)		_x Sparsely Ve	getated Concave Su	urface (B8)
x High Water Table (A2)	Mari	Deposits (B15) (LRF	R U)	Drainage Pa	tterns (B10)	
_x Saturation (A3)	Hydr	rogen Sulfide Odor (0	C1)	Moss Trim L	ines (B16)	
Water Marks (B1)	Oxid	lized Rhizospheres a	along Living Roots (C3)	Dry-Season	Water Table (C2)	
Sediment Deposits (B2)	Pres	sence of Reduced Iro	n (C4)	Crayfish Bur	rows (C8)	
Drift Deposits (B3)	Rec	ent Iron Reduction in	Tilled Soils (C6)	Saturation V	isible on Aerial Imaç	gery (C9)
X Algal Mat or Crust (B4)	Thin	Muck Surface (C7)		Geomorphic	Position (D2)	
Iron Deposits (B5)	Othe	er (Explain in Remark	ks)	Shallow Aqu	itard (D3)	
Inundation Visible on Aeri	. , , ,			_x_ FAC-Neutral	Test (D5)	
Water-Stained Leaves (B	9)			Sphagnum n	moss (D8) (LRR T, l	١)
Field Observations:						
Surface Water Present?	Yes No _x					
Water Table Present?	Yesx _ No	Depth (inches): 2				
Saturation Present?	Yesx _ No	Depth (inches): 0	Wetland	Hydrology Preser	nt? Yes <u>x</u>	No
(includes capillary fringe) Describe Recorded Data (stre	eam gauge, monitoring w	ell aerial photos, pre	 evious inspections), if av	vailable:		
Remarks:			:vious inspections/, ii av	allable.		
Atlantic ribbed mussel obser	rved within the intertio	lal wetland.				

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

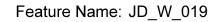
	Absolute Dominant Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30 ft</u>)	% Cover Species? Status	Number of Dominant Species
1. <u>N/A</u>		That Are OBL, FACW, or FAC:1 (A)
2		Total Number of Dominant
3		Species Across All Strata:1 (B)
4		Percent of Dominant Species
5		That Are OBL, FACW, or FAC: 100.0% (A/B)
6		Prevalence Index worksheet:
	0 = Total Cover	Total % Cover of: Multiply by:
50% of total cover:0	20% of total cover: 0	OBL species 0 x 1 = 0
Sapling Stratum (Plot size: 30 ft)		FACW species 30 x 2 = 60
1. <u>N/A</u>		FAC species
2		
3		FACU species 0 x 4 = 0
4		UPL species $0 \times 5 = 0$
5		Column Totals:30 (A)60 (B)
6		Prevalence Index = B/A =2.00
	0 = Total Cover	Hydrophytic Vegetation Indicators:
50% of total cover:0	20% of total cover:0	x 1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft)		x 2 - Dominance Test is >50%
1. <u>N/A</u>		x 3 - Prevalence Index is ≤3.0¹
2		Problematic Hydrophytic Vegetation¹ (Explain)
3.		Troblematic Hydrophytic Vegetation (Explain)
4.		1 Indicators of hydric cail and wattened hydrology must
5		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
6.		Definitions of Five Vegetation Strata:
	= Total Cover	
50% of total cover:	20% of total cover:0	Tree – Woody plants, excluding woody vines,
	20 % of total cover 0	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
	20 Voc EACW	
Phragmites australis, Common Reed		Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
2		than 3 in. (7.6 cm) DBH.
3		Short Mark to be to some distinguished and the sound of t
4		Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
5		
6		Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
7		plants, except woody vines, less than approximately
8		3 ft (1 m) in height.
9		Woody vine – All woody vines, regardless of height.
10		
11		
	30 = Total Cover	
50% of total cover:15	20% of total cover:6	
Woody Vine Stratum (Plot size: 30 ft)		
1. <u>N/A</u>		
2		
3.		
4.		
5.		Hydrophytic
	0 = Total Cover	Vegetation
50% of total cover: 0	20% of total cover: 0	Present?
Remarks: (If observed, list morphological adaptations belo		
Transants. (II observed, list morphological adaptations belo	··· <i>j</i> .	

Sampling Point: JD W 019

SolL Sampling Point: JD_W_019

	cription: (Describe	to the depth				or confirn	n the absence	of indicators.)
Depth (inches)	Matrix Color (moist)	 _	Redo Color (moist)	x Feature: %	Type ¹	Loc ²	Texture	Remarks
0-20	10YR 3/3	100%	COIOI (IIIOISI)	70	1,400		Clay loam	Nomarks
		100%						
20-22	10YR 5/1						Sandy clay loam	
		- — —						
								_
1Type: C=C	concentration, D=Dep	letion PM-P	aduced Metrix M	S-Maskad	Sand Cr	oine	² L coation:	PL=Pore Lining, M=Matrix.
	Indicators: (Applic					allis.		for Problematic Hydric Soils ³ :
Histoso			Polyvalue Be			RRSTI		luck (A9) (LRR O)
	pipedon (A2)		Thin Dark Su				· —	luck (A10) (LRR S)
Black H	istic (A3)		Loamy Muck					ed Vertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)		Loamy Gleye	,	F2)			ont Floodplain Soils (F19) (LRR P, S, T)
_	d Layers (A5)		Depleted Ma					lous Bright Loamy Soils (F20)
	: Bodies (A6) (LRR P ucky Mineral (A7) (Lf		Redox Dark Depleted Da	,	,		•	(A 153B) urent Material (TF2)
	resence (A8) (LRR U		Redox Depre		` '			nallow Dark Surface (TF12)
ı —	uck (A9) (LRR P, T)	,	Marl (F10) (L		,		_ ′	Explain in Remarks)
Deplete	d Below Dark Surfac	e (A11)	Depleted Oc	hric (F11)	(MLRA 1	51)		
ı —	ark Surface (A12)		Iron-Mangan		' '	, ,	,	ators of hydrophytic vegetation and
ı —	Prairie Redox (A16) (F		Umbric Surfa			', U)		and hydrology must be present,
	Mucky Mineral (S1) (I Gleyed Matrix (S4)	LKK (), (S)	Delta Ochric Reduced Ver			ΩΔ 150R)		ess disturbed or problematic.
	Redox (S5)		Piedmont Flo	, , ,				
_	d Matrix (S6)						RA 149A, 153C,	153D)
Dark Su	ırface (S7) (LRR P, S	S, T, U)						
Restrictive	Layer (if observed):							
Туре:			_					
Depth (ir	iches):		_				Hydric Soil	Present? Yesx No
Remarks:							•	

Date: <u>5/18/21</u>







Photograph Direction East

Comments:

Photograph Direction West

Comments:





Photograph Direction South

Comments:

Photograph Direction North

Project/Site: Dominion CVOW	City/County: Virginia	Beach/Virginia Beach	Sampling Date: 5/18/2021
Applicant/Owner: Dominion		State: <u>VA</u>	Sampling Point: JD W 019 UP
Investigator(s): J. D'Augustine, K. Walls	Section, Township, R	ange:	
Landform (hillslope, terrace, etc.): Hillslope			
Subregion (LRR or MLRA): MLRA 153B of LRR T Lat:			
Soil Map Unit Name: 33E - Rumford fine sandy loam, 6 to 35 percent slopes			
Are climatic / hydrologic conditions on the site typical for this time of you			
Are Vegetation, Soil, or Hydrology significantly			
Are Vegetation, Soil, or Hydrology naturally pr		needed, explain any answe	
SUMMARY OF FINDINGS – Attach site map showing			ŕ
Hydrophytic Vegetation Present? Yesx No			
Hydric Soil Present? Yes No x	is the Sample		
Wetland Hydrology Present? Yes No _x	within a Wetla	and? Yes	Nox
Remarks:			Observed Classifications:
			Cowardin:
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indica	ators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	1	Surface Soil	Cracks (B6)
Surface Water (A1) Aquatic Fauna (B1	13)	Sparsely Ve	getated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B1		Drainage Pa	atterns (B10)
Saturation (A3) Hydrogen Sulfide	Odor (C1)	Moss Trim L	ines (B16)
Water Marks (B1) Oxidized Rhizosph	heres along Living Roo	ts (C3) Dry-Season	Water Table (C2)
Sediment Deposits (B2) Presence of Redu	ced Iron (C4)	Crayfish Bur	rows (C8)
Drift Deposits (B3) Recent Iron Reduc	ction in Tilled Soils (C6	Saturation V	isible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface	e (C7)	Geomorphic	: Position (D2)
Iron Deposits (B5) Other (Explain in F	Remarks)	Shallow Aqu	iitard (D3)
Inundation Visible on Aerial Imagery (B7)		FAC-Neutra	I Test (D5)
Water-Stained Leaves (B9)		Sphagnum r	moss (D8) (LRR T, U)
Field Observations:			
Surface Water Present? Yes Nox Depth (inches			
Water Table Present? Yes Nox Depth (inches	s):		
Saturation Present? Yes No _x _ Depth (inches (includes capillary fringe)	s): W	etland Hydrology Prese	nt? Yes Nox
Describe Recorded Data (stream gauge, monitoring well, aerial phot	tos, previous inspection	ns), if available:	
Remarks:			
			H

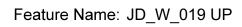
		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft)		Species?		Number of Dominant Species
Pinus taeda, Loblolly Pine	50	<u>Yes</u>	<u>FAC</u>	That Are OBL, FACW, or FAC:5 (A)
2. Quercus alba, Northern White Oak	20	<u>Yes</u>	<u>FACU</u>	Total Number of Dominant
3. <u>Liquidambar styraciflua, Sweet-Gum</u>	15	<u>No</u>	<u>FAC</u>	Species Across All Strata: 8 (B)
4. Acer rubrum, Red Maple	10	No	FAC	
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 62.5% (A/B)
6				I THAT ARE OBL, FACW, OF FAC (A/B)
o		= Total Cov	or.	Prevalence Index worksheet:
500/ -51-1-1 47.5				Total % Cover of: Multiply by:
50% of total cover: <u>47.5</u>	20% or	total cover	19	OBL species 0 x 1 = 0
Sapling Stratum (Plot size: 30 ft)				FACW species0 x 2 =0
Liquidambar styraciflua, Sweet-Gum				FAC species 130 x 3 = 390
2. Quercus alba, Northern White Oak	15	<u>Yes</u>	<u>FACU</u>	
3				FACU species x 4 = 200
4				UPL species0 x 5 =0
5				Column Totals:180 (A)590 (B)
6.				Day of Lance Index - B/A - 3 28
· .		= Total Cov	er	Prevalence Index = B/A =3.28
500/ oftetal agrees 15				Hydrophytic Vegetation Indicators:
50% of total cover: 15	20% 01	total cover	0	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft)				X 2 - Dominance Test is >50%
1. Asimina triloba, Common Pawpaw	10	<u>Yes</u>	<u>FAC</u>	3 - Prevalence Index is ≤3.0¹
2				Problematic Hydrophytic Vegetation¹ (Explain)
3				
4				¹ Indicators of hydric soil and wetland hydrology must
5				be present, unless disturbed or problematic.
6.				Definitions of Five Vegetation Strata:
·		Total Cov		
500/ official course [Tree – Woody plants, excluding woody vines,
50% of total cover: 5	20% or	total cover		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: 30 ft)				(7.0 cm) or larger in diameter at breast height (DBH).
		<u>Yes</u>		Sapling – Woody plants, excluding woody vines,
2. Pteridium aquilinum, Northern Bracken Fern	15	Yes	<u>FACU</u>	approximately 20 ft (6 m) or more in height and less
3				than 3 in. (7.6 cm) DBH.
4				Shrub – Woody plants, excluding woody vines,
5				approximately 3 to 20 ft (1 to 6 m) in height.
6.				Herb – All herbaceous (non-woody) plants, including
7.				herbaceous vines, regardless of size, and woody
8				plants, except woody vines, less than approximately
		-		3 ft (1 m) in height.
9				Woody vine - All woody vines, regardless of height.
10				
11				
	30	= Total Cov	er	
50% of total cover: 15	20% of	total cover:	6	
Woody Vine Stratum (Plot size: 30 ft)				
1. Smilax rotundifolia, Horsebrier	15	Yes	FAC	
2.				
3				
4				
5				Hydrophytic
		= Total Cov		Vegetation Present? Yesx_ No
50% of total cover:	20% of	total cover:	3	103
Remarks: (If observed, list morphological adaptations belo	w).			

Sampling Point: JD W 019 UP

SOIL Sampling Point: JD W 019 UP

Profile Desc	cription: (Describe	to the depth	needed to docum	nent the i	ndicator	or confirm	the absence of	indicators.)
Depth	Matrix			x Feature:				
(inches)	Color (moist)		Color (moist)	%	Type'	Loc ²	Texture	Remarks
0-1	10YR 3/2	100%					Loam	
1-20	10YR 6/3	100%					Loam	
1							2	
	oncentration, D=Dep Indicators: (Applic					ains.		.=Pore Lining, M=Matrix. Problematic Hydric Soils ³ :
-		able to all LK				DD C T II		
Histosol	pipedon (A2)		Polyvalue Be Thin Dark Su				· —	k (A9) (LRR O) k (A10) (LRR S)
ı —	istic (A3)		Loamy Muck					Vertic (F18) (outside MLRA 150A,B)
_	en Sulfide (A4)		Loamy Gleye			,		Floodplain Soils (F19) (LRR P, S, T)
Stratified	d Layers (A5)		Depleted Mat	trix (F3)			Anomalou	ıs Bright Loamy Soils (F20)
	Bodies (A6) (LRR P		Redox Dark	,	,		(MLRA	,
	ucky Mineral (A7) (LF		Depleted Dar					nt Material (TF2)
ı —	resence (A8) (LRR U uck (A9) (LRR P, T))	Redox Depre Marl (F10) (L	,	8)		—	low Dark Surface (TF12) plain in Remarks)
	d Below Dark Surfac	e (A11)	Depleted Oct	,	(MLRA 1	51)	0.1101 (2.1)	piani in riomano,
Thick Da	ark Surface (A12)		Iron-Mangan	ese Mass	es (F12) (LRR O, P,	T) ³ Indicato	ors of hydrophytic vegetation and
ı —	rairie Redox (A16) (N	,	Umbric Surfa	. , ,	,	, U)		d hydrology must be present,
	Mucky Mineral (S1) (L	RR O, S)	Delta Ochric			0.6.4505)	unless	disturbed or problematic.
	Gleyed Matrix (S4) Redox (S5)		Reduced Ver Piedmont Flo				9Δ)	
_	Matrix (S6)						A 149A, 153C, 15	53D)
	rface (S7) (LRR P, S	S, T, U)			•	, .		•
Restrictive	Layer (if observed):							
Туре:			_					
Depth (in	ches):						Hydric Soil Pre	esent? Yes Nox
Remarks:								

Date: 5/18/21







Photograph Direction North

Comments:

Photograph Direction South

Comments:





Photograph Direction East

Comments:

Photograph Direction West

Project/Site: Dominion CVOW	City/County: Virgin	ia Beach/Virginia Beach	_ Sampling Date: _	5/21/2021
Applicant/Owner: Dominion		State: <u>VA</u>	_ Sampling Point: <u>J</u> [D_W23_PEM
Investigator(s): J. D'Augustine, K. Walls	Section, Township,	Range:		
Landform (hillslope, terrace, etc.): Depression				(%): 1
Subregion (LRR or MLRA): MLRA 153B of LRR T Lat:	36.77034	7 Long:	-76.051416 Datu	ım: WGS84
Soil Map Unit Name: 38 - Tomotley loam				
Are climatic / hydrologic conditions on the site typical for this time of y				
Are Vegetation, Soil, or Hydrology significantl				No x
Are Vegetation, Soil, or Hydrology naturally p		f needed, explain any answ		
SUMMARY OF FINDINGS – Attach site map showin			,	atures, etc.
		,	-	
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No No No No No No No No No No No No No		led Area		
Hydric Soil Present? Yes _ x	within a We	tland? Yes	× No	
Remarks:	-		01	••
Data point taken within an existing cleared utility easement.			Observed Classifi	
Data point taken within an existing cleared utility easement.			Cowardin:	
HYDROLOGY				
Wetland Hydrology Indicators:		Secondary Indic	ators (minimum of tw	vo required)
Primary Indicators (minimum of one is required; check all that apply	١	X_ Surface Soi		wo required?
Surface Water (A1) Aquatic Fauna (B			egetated Concave Si	urface (B8)
High Water Table (A2) — Marl Deposits (B1)			atterns (B10)	uriace (Bo)
Saturation (A3) — Hydrogen Sulfide		Moss Trim I		
Water Marks (B1) — Oxidized Rhizosp		.—	Water Table (C2)	
Sediment Deposits (B2) Presence of Redu		× Crayfish Bu		
Drift Deposits (B3) Recent Iron Redu	, ,		/isible on Aerial Imag	nery (C9)
Algal Mat or Crust (B4) Thin Muck Surface	,	× Geomorphic		gery (03)
Iron Deposits (B5) Other (Explain in		Shallow Aqu		
Inundation Visible on Aerial Imagery (B7)	rtemarks)	× FAC-Neutra	, ,	
Water-Stained Leaves (B9)			moss (D8) (LRR T, I	un l
Field Observations:		Opilagilain	11000 (20) (21111 1, 1	-
Surface Water Present? Yes No _x Depth (inche	s):			
Water Table Present? Yes No _x Depth (inche				
Saturation Present? Yes No _x Depth (inche		Wetland Hydrology Prese	ent? Yes X	No
(includes capillary fringe)				
Describe Recorded Data (stream gauge, monitoring well, aerial pho	tos, previous inspecti	ons), if available:		
Pomerke:				
Remarks:				
İ				1

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

		Dominant		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30 ft</u>)	% Cover	Species?	Status	Number of Dominant Species
1. <u>N/A</u>				That Are OBL, FACW, or FAC:2 (A)
2				Total Number of Dominant
3				Species Across All Strata: 2 (B)
4.				
				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100.0% (A/B)
6				Prevalence Index worksheet:
	0	= Total Cov	er	Total % Cover of: Multiply by:
50% of total cover:0	20% of	f total cover:	0	1
Sapling Stratum (Plot size: 30 ft)				OBL species <u>85</u> x 1 = <u>85</u>
1. <u>N/A</u>				FACW species0 x 2 =0
2.				FAC species0 x 3 =0
				FACU species 5 x 4 = 20
3				UPL species0 x 5 =0
4				Column Totals: 90 (A) 105 (B)
5				Column Totals (A) (B)
6				Prevalence Index = B/A =1.17
		= Total Cov	er	Hydrophytic Vegetation Indicators:
50% of total cover: 0	20% of	f total cover	0	
Shrub Stratum (Plot size: 30 ft)				x 1 - Rapid Test for Hydrophytic Vegetation
				X 2 - Dominance Test is >50%
1. <u>N/A</u>				X 3 - Prevalence Index is ≤3.01
2				Problematic Hydrophytic Vegetation ¹ (Explain)
3				
4				¹ Indicators of hydric soil and wetland hydrology must
5.				be present, unless disturbed or problematic.
				Definitions of Five Vegetation Strata:
o				Deminions of Five Vegetation Strata.
		= Total Cov		Tree – Woody plants, excluding woody vines,
50% of total cover:0	20% of	f total cover:	0	approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: 30 ft)				(7.6 cm) or larger in diameter at breast height (DBH).
1. Carex Iurida, Shallow Sedge	30	Yes	OBL	Sapling – Woody plants, excluding woody vines,
2. Typha angustifolia, Narrow-Leaf Cat-Tail	20	Yes	OBL	approximately 20 ft (6 m) or more in height and less
Scirpus cyperinus, Cottongrass Bulrush				than 3 in. (7.6 cm) DBH.
				Shrub – Woody plants, excluding woody vines,
4. Juncus effusus, Lamp Rush				approximately 3 to 20 ft (1 to 6 m) in height.
5. Portulaca oleracea, Little-Hogweed			<u>FACU</u>	
6. Eleocharis palustris, Common Spike-Rush	5	<u>No</u>	OBL	Herb – All herbaceous (non-woody) plants, including
7				herbaceous vines, regardless of size, and woody
8				plants, except woody vines, less than approximately 3 ft (1 m) in height.
9.				
				Woody vine - All woody vines, regardless of height.
10				
11				
	90	= Total Cov	er	
50% of total cover: 45	20% of	f total cover:	18	
Woody Vine Stratum (Plot size: 30 ft)				
1. <u>N/A</u>				
2.				
3				
4				
5				Hydrophytic
		= Total Cov	er	Vegetation
50% of total cover:0				Present? Yes x No No
		. Lotal GOVGI.		
Remarks: (If observed, list morphological adaptations belo	/ W).			

Sampling Point: JD W23 PEM

SOIL Sampling Point: JD_W23_PEM

Profile Desc	cription: (Describe	to the dept	h needed to docun	nent the i	ndicator	or confirm	n the absence o	of indicators.)
Depth	Matrix			x Features				
(inches)	Color (moist)	<u>%</u> .	Color (moist)	<u>%</u>	Type'	Loc ²	Texture	Remarks
0-5	10YR 4/1	100%					Loam	
5-13	10YR 4/1	95%	10YR 4/6		C	PL	Clay loam	
13-20	10YR 5/1	90%	10YR 4/6	10%	C	PL	Sandy clay loam	
¹ Type: C=C	oncentration, D=Dep	letion. RM=	Reduced Matrix, MS	======================================	Sand Gra	ins.	² Location:	PL=Pore Lining, M=Matrix.
	Indicators: (Applic							for Problematic Hydric Soils ³ :
Histosol	(A1)		Polyvalue Be	low Surfa	ce (S8) (L	RR S, T, I	U) 1 cm M	uck (A9) (LRR O)
ı —	oipedon (A2)		Thin Dark Su					uck (A10) (LRR S)
	istic (A3)		Loamy Mucky			0)		ed Vertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4) d Layers (A5)		Loamy Gleye _x Depleted Mat	,	F2)			ont Floodplain Soils (F19) (LRR P, S, T) lous Bright Loamy Soils (F20)
1	Bodies (A6) (LRR P	T, U)	Redox Dark 8		6)			A 153B)
5 cm Mu	ucky Mineral (A7) (LF	RR P, T, U)	Depleted Dar	k Surface	(F7)		Red Pa	rent Material (TF2)
ı —	esence (A8) (LRR U)	Redox Depre	,	8)			nallow Dark Surface (TF12)
	ick (A9) (LRR P, T) d Below Dark Surfac	~ (A11)	Marl (F10) (L Depleted Och	•	/MIDA 44	:4\	Other (Explain in Remarks)
	ark Surface (A12)	C (ATT)	Iron-Mangan	, ,	•		.T) ³ Indica	ators of hydrophytic vegetation and
I —	rairie Redox (A16) (N	ILRA 150A			, , ,	, ,	•	and hydrology must be present,
	Mucky Mineral (S1) (L	.RR O, S)	Delta Ochric		-			ss disturbed or problematic.
	Gleyed Matrix (S4)		Reduced Ver	, ,			'	
_	Redox (S5) I Matrix (S6)		Piedmont Flo				19A) RA 149A, 153C,	153D)
	rface (S7) (LRR P, S	i, T, U)	/ #10111410400 E	ng.n Loui	,	20) (2.	D. 1407., 1000,	1662,
Restrictive	Layer (if observed):							
Туре:								
Depth (in	ches):						Hydric Soil I	Present? Yes <u>x</u> No
Remarks:								

Date: ____







Photograph Direction South

Comments:

Photograph Direction North

Comments:





Photograph Direction East

Comments:

Photograph Direction West

Project/Site: Dominion CVOW			City/County: Virgin	ia Beach/Virginia Beach	Sampling Date:	5/21/2021
Applicant/Owner: Dominion				State: VA	_ Sampling Point: JD	W 023 PFO
Investigator(s): J. D'Augustine,	K. Walls		Section, Township.	Range:		
Landform (hillslope, terrace, etc.)						%). 2
Subregion (LRR or MLRA): MLR						
						1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
Soil Map Unit Name: 1 - Acredale s				NWI class		
Are climatic / hydrologic condition		-				
Are Vegetation, Soil	, or Hydrology	significantly	disturbed?	Are "Normal Circumstances	" present? Yesx_	_ No
Are Vegetation, Soil	, or Hydrology	naturally pro	oblematic? (If needed, explain any ansv	vers in Remarks.)	
SUMMARY OF FINDINGS	S – Attach sit	te map showing	sampling poir	nt locations, transec	ts, important feat	ures, etc.
				,		
Hydrophytic Vegetation Presen		x No	Is the Samp	oled Area		
Hydric Soil Present?		x No	within a We	etland? Yes	x No	
Wetland Hydrology Present?	Yes	No				
Remarks:					Observed Classific	
					Cowardin:	
HYDROLOGY						
Wetland Hydrology Indicators	s:				cators (minimum of two	o required)
Primary Indicators (minimum of	f one is required;	check all that apply)				
Surface Water (A1)	_	Aquatic Fauna (B1	3)		egetated Concave Sur	face (B8)
High Water Table (A2)	_	Marl Deposits (B15		Drainage F	Patterns (B10)	
Saturation (A3)	_	Hydrogen Sulfide (.—	Lines (B16)	
Water Marks (B1)	_		neres along Living R	· / — ·	n Water Table (C2)	
Sediment Deposits (B2)		Presence of Reduc		Crayfish B		
Drift Deposits (B3)		Recent Iron Reduc			Visible on Aerial Image	∍ry (C9)
Algal Mat or Crust (B4)		Thin Muck Surface	. ,		ic Position (D2)	
Iron Deposits (B5)		Other (Explain in F	Remarks)	_	quitard (D3)	
Inundation Visible on Aeria				_x FAC-Neuti	, ,	
Water-Stained Leaves (B9)			Sphagnum	moss (D8) (LRR T, U)	<u>'</u>
Field Observations:	V N.	V	,			
		X Depth (inches	I			
Water Table Present?		x Depth (inches				.
Saturation Present? (includes capillary fringe)	Yes No _	x Depth (inches	s):	Wetland Hydrology Pres	ent? Yes <u> </u>	10 ——
Describe Recorded Data (strea	m gauge, monitor	ring well, aerial photo	os, previous inspect	ions), if available:		
Remarks:						

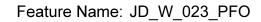
		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft)		Species?		Number of Dominant Species
Acer rubrum, Red Maple	30	<u>Yes</u>	<u>FAC</u>	That Are OBL, FACW, or FAC: 7 (A)
2. <u>Liquidambar styraciflua, Sweet-Gum</u>	15	Yes	FAC	Total Number of Dominant
3. Quercus michauxii, Swamp Chestnut Oak	15	Yes	FACW	Species Across All Strata: 8 (B)
4. Carya ovata, Shag-Bark Hickory	15	Yes	_FACU_	
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 87.5% (A/B)
6				That Ale OBL, PACVV, of PAC (A/B)
o		= Total Cov	or.	Prevalence Index worksheet:
500/ oftetal agrees 27 E				Total % Cover of: Multiply by:
50% of total cover: <u>37.5</u>	20% 01	total cover	15	OBL species x 1 = 20
Sapling Stratum (Plot size: 30 ft)				FACW species55 x 2 =110
Carpinus caroliniana, American Hornbeam			<u>FAC</u>	FAC species x 2
2				
3				FACU species15 x 4 =60
4				UPL species 0 x 5 = 0
5				Column Totals:(A)(B)
6				Prevalence Index = B/A =2.60
		= Total Cov	er	
50% of total cover: 20				Hydrophytic Vegetation Indicators:
	20% 01	total cover		1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft)		.,		X 2 - Dominance Test is >50%
1. Morella cerifera, Southern Bayberry				X 3 - Prevalence Index is ≤3.01
2				Problematic Hydrophytic Vegetation ¹ (Explain)
3				
4				¹ Indicators of hydric soil and wetland hydrology must
5				be present, unless disturbed or problematic.
				Definitions of Five Vegetation Strata:
		= Total Cov	er	
50% of total cover: 5				Tree – Woody plants, excluding woody vines,
	20% 01	total cover		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: 30 ft)				(Cooling of Larger in Claimoter at a reactive gire (2.211).
Arundinaria tecta, Switch Cane	40		FACW	Sapling – Woody plants, excluding woody vines,
2. <u>Carex Iurida, Shallow Sedge</u>	10	<u>No</u>		approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
3. <u>Ludwigia palustris, Marsh Primrose-Willow</u>	10	<u>No</u>	OBL_	than o m. (1.5 din) bbri.
4				Shrub – Woody plants, excluding woody vines,
5				approximately 3 to 20 ft (1 to 6 m) in height.
6				Herb - All herbaceous (non-woody) plants, including
7				herbaceous vines, regardless of size, and woody
8.				plants, except woody vines, less than approximately 3 ft (1 m) in height.
9.				3 it (1 m) in neight.
				Woody vine – All woody vines, regardless of height.
10				
11				
	60	= Total Cov	er	
50% of total cover: 30	20% of	total cover	12	
Woody Vine Stratum (Plot size: 30 ft)				
Smilax rotundifolia, Horsebrier	15	Yes	<u>FAC</u>	
2				
3.				
4				
5				l Hardward and the last of the
·		= Total Cov		Hydrophytic Vegetation
500/ -51-1-1 7.5				Present? Yes x No No
50% of total cover: 7.5		total cover		
Remarks: (If observed, list morphological adaptations belo	w).			

Sampling Point: JD W 023 PFO

SolL Sampling Point: <u>JD_W_023_P</u>FO

	cription: (Describe	to the depti				or confir	n the absence of ir	ndicators.)
Depth (inches)	Matrix Color (moist)	<u></u> %	Redo Color (moist)	x Features %	Type ¹	Loc ²	Texture	Remarks
0-3	10YR 3/2	100%	O GIO! (IIIOIG)		1,00		Loam	Komarko
			IOVD 4/C	100/				
3-17	10YR 4/2		LOYR 4/6				Sandy clay loam	
17-20	10YR 5/1						Sandy clay loam	
								_
-								
1Tyme: C=C	oncentration, D=Dep	detion DM-I	Paduaad Matrix M	S-Maskad	Sand Cr	———	² Location: DL =	=Pore Lining, M=Matrix.
	Indicators: (Applic					all 15.		Problematic Hydric Soils ³ :
Histoso			Polyvalue Be			RRST		_
I —	pipedon (A2)		Thin Dark Su				· —	(A10) (LRR S)
Black H	istic (A3)		Loamy Muck					/ertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)		Loamy Gleye	ed Matrix (F2)			Floodplain Soils (F19) (LRR P, S, T)
ı —	d Layers (A5)		× Depleted Ma		· · · ·			Bright Loamy Soils (F20)
	Bodies (A6) (LRR P		Redox Dark Depleted Da	,	,		(MLRA 1	,
	ucky Mineral (A7) (LI resence (A8) (LRR L		Redox Depre		` '			t Material (TF2) ow Dark Surface (TF12)
ı —	uck (A9) (LRR P, T)	''	Marl (F10) (L	,	,			lain in Remarks)
	d Below Dark Surfac	e (A11)	Depleted Oc	•	(MLRA 1	51)		,
Thick D	ark Surface (A12)		Iron-Mangan	ese Masse	es (F12) (LRR O, P		s of hydrophytic vegetation and
_	rairie Redox (A16) (I		_			, U)		hydrology must be present,
	Mucky Mineral (S1) (I	LRR O, S)	Delta Ochric			0.8 4500		disturbed or problematic.
	Gleyed Matrix (S4) Redox (S5)		Reduced Ver				•	
_	d Matrix (S6)						RA 149A, 153C, 153	3D)
I — · ·	ırface (S7) (LRR P, \$	S, T, U)	_	J	,	, (, , , , , , , , , , , , , , , , , , , ,	•
Restrictive	Layer (if observed):	•						
Туре:								
Depth (in	ches):						Hydric Soil Pres	sent? Yes <u> </u>
Remarks:							•	

Date: 5/22/21







Photograph Direction East

Comments:

Photograph Direction West

Comments:





Photograph Direction South

Comments:

Photograph Direction North

Project/Site: Dominion CVOW		City/C	ounty: Virgini	ia Beach/\	/irginia Beach	Sampling Date: _	5/21/2021
Applicant/Owner: Dominion				;	State: <u>VA</u>	Sampling Point: <u>J</u>	D_W_023_UP
Investigator(s): J. D'Augustine, K. Wall:	s	Section	on, Township,	Range:			
Landform (hillslope, terrace, etc.): Flat		Local	relief (concave	e, convex,	none): None	Slope	e (%): <u>0</u>
							No x
							140
						,	atures, etc.
Hydronhytic Vegetation Present?	Vas	No X					
'			within a We	tland?	Yes	Nox	
Remarks:						Observed Classif	 fications:
The data point was taken within an	existing cleared	utility easement.					
HYDROLOGY							
Wetland Hydrology Indicators:					Secondary Indica	ators (minimum of t	wo required)
1	required; check a	all that apply)			Surface Soil	Cracks (B6)	
Surface Water (A1)	Agua	tic Fauna (B13)			Sparsely Ve	getated Concave S	urface (B8)
			R U)				, ,
Saturation (A3)					Moss Trim L	ines (B16)	
Water Marks (B1)				oots (C3)	Dry-Season	Water Table (C2)	
Sediment Deposits (B2)					Crayfish Bur	rows (C8)	
Drift Deposits (B3)	Rece	nt Iron Reduction in	Tilled Soils (C	26)	Saturation V	isible on Aerial Ima	igery (C9)
Algal Mat or Crust (B4)	Thin f	Muck Surface (C7)			Geomorphic	Position (D2)	
Iron Deposits (B5)	Other	(Explain in Remark	(s)		Shallow Aqu	itard (D3)	
Inundation Visible on Aerial Image	ry (B7)				FAC-Neutral	Test (D5)	
Water-Stained Leaves (B9)					Sphagnum r	noss (D8) (LRR T,	U)
Field Observations:							
Surface Water Present? Yes	Nox [Depth (inches):					
Water Table Present? Yes	Nox [Depth (inches):					
	Nox [Depth (inches):		Wetland H	lydrology Presei	nt? Yes	Nox
	e monitoring we	II. aerial photos, pre	vious inspection	ons), if ava	ilable:		
Joseph Control Para (chicam gang	o, mornioning tro	ii, adriai priotod, pro	Trodo moposii	01.0), 11 414			
Remarks:							
Tromaine.							
plicant/Owner: <u>Dominion</u> State: <u>VA</u> Sampling Point: <u>JD W 023 UP</u> restigator(s): <u>J. D'Augustine</u> , K. Walls Section, Township, Range: Indirom (hillslope, terrace, etc.): <u>Flat</u> Local relief (concave, convex, none): <u>None</u> Slope (%): <u>0</u> Jimple the property of th							
	State: VA Sampling Point: JD W 023 UP						

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

	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft)	% Cover Species? Status	Number of Dominant Species
1. <u>N/A</u>		That Are OBL, FACW, or FAC:0 (A)
2		Total Number of Dominant
3		Species Across All Strata: 1 (B)
4.		(2)
		Percent of Dominant Species
5		That Are OBL, FACW, or FAC: 0.0% (A/B)
6		Prevalence Index worksheet:
	0 = Total Cover	Total % Cover of: Multiply by:
50% of total cover: 0	20% of total cover: 0	
Sapling Stratum (Plot size: 30 ft)		OBL species 0 x 1 = 0
1. <u>N/A</u>		FACW species0 x 2 =0
2.		FAC species0 x 3 =0
		FACU species100 x 4 =400
3		UPL species0 x 5 =0
4		Column Totals: 100 (A) 400 (B)
5		(A)(B)
6		Prevalence Index = B/A =4.00
	0 = Total Cover	Hydrophytic Vegetation Indicators:
50% of total cover: 0	20% of total cover: 0	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft)		
		2 - Dominance Test is >50%
1. <u>N/A</u>		3 - Prevalence Index is ≤3.0¹
2		Problematic Hydrophytic Vegetation¹ (Explain)
3		
4		¹ Indicators of hydric soil and wetland hydrology must
5		be present, unless disturbed or problematic.
6.		Definitions of Five Vegetation Strata:
	0 = Total Cover	
500/ official course 0		Tree – Woody plants, excluding woody vines,
	20% of total cover:0	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: 30 ft)		(7.0 cm) of larger in diameter at breast height (DBH).
Lolium perenne, Perennial Rye Grass	90 Yes FACU	Sapling – Woody plants, excluding woody vines,
2. Portulaca oleracea, Little-Hogweed	5NoFACU	approximately 20 ft (6 m) or more in height and less
3. Trifolium repens, White Clover		than 3 in. (7.6 cm) DBH.
4.		Shrub – Woody plants, excluding woody vines,
		approximately 3 to 20 ft (1 to 6 m) in height.
5		
6		Herb – All herbaceous (non-woody) plants, including
7		herbaceous vines, regardless of size, <u>and</u> woody plants, except woody vines, less than approximately
8		3 ft (1 m) in height.
9		
10		Woody vine – All woody vines, regardless of height.
11		
	100 = Total Cover	
	20% of total cover:20	
Woody Vine Stratum (Plot size: 30 ft)		
1. <u>N/A</u>		
2.		
3		
4		
5		Hydrophytic
	0 = Total Cover	Vegetation
50% of total cover: 0	20% of total cover: 0	Present? Yes No×
Remarks: (If observed, list morphological adaptations belo	w).	1

Sampling Point: JD W 023 UP

SOIL Sampling Point: JD W 023 UP

Profile Des Depth	cription: (Describe Matrix	to the depth i		ment the i		or confirm	the absence of i	indicators.)
(inches)	Color (moist)	%	Color (moist)	% <u>reature</u>	Type ¹	Loc ²	Texture	Remarks
0-20	10YR 4/3	100%					Silty loam	
	-							
		· —— —		- ——				
	Concentration, D=Dep					ains.		=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applic	able to all LR	Rs, unless othe	rwise not	ed.)		Indicators for	Problematic Hydric Soils ³ :
Histoso			Polyvalue Be				· —	k (A9) (LRR O)
	pipedon (A2)		Thin Dark Su					k (A10) (LRR S)
	listic (A3)		Loamy Muck	-		l O)		Vertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4) d Layers (A5)	•	Loamy Gleye Depleted Ma		F2)			Floodplain Soils (F19) (LRR P, S, T) s Bright Loamy Soils (F20)
	Bodies (A6) (LRR P	т пл	Depleted Ma Redox Dark		6)		(MLRA	
	ucky Mineral (A7) (LF		Depleted Da	,	,		•	nt Material (TF2)
	resence (A8) (LRR U		Redox Depre		' '			low Dark Surface (TF12)
	uck (A9) (LRR P, T)	,	Marl (F10) (L	,	-,		—	plain in Remarks)
	d Below Dark Surfac	e (A11)	Depleted Oc	hric (F11)	(MLRA 1	51)		
Thick D	ark Surface (A12)		Iron-Mangan	ese Mass	es (F12) (LRR O, P,	T) ³ Indicator	rs of hydrophytic vegetation and
	Prairie Redox (A16) (I					', U)		d hydrology must be present,
	Mucky Mineral (S1) (I	RR O, S)	Delta Ochric				unless	disturbed or problematic.
	Gleyed Matrix (S4)		Reduced Ver	, , ,			0.63	
	Redox (S5)	•	Piedmont Flo					(20)
	d Matrix (S6) urface (S7) (LRR P, S	: T II)	Anomaious i	Sright Loar	ny sons (F20) (WILK)	A 149A, 153C, 15	130)
	Layer (if observed):						T	
	Layer (ii ebserved).							
	nches):		_				Hydric Soil Pre	esent? Yes Nox
			-				Tiyane John Te	765 NO
Remarks:								

Date: <u>5/22/21</u>







Photograph Direction North

Comments:

Photograph Direction South

Comments:





Photograph Direction East

Comments:

Photograph Direction West

irginia Beach	Sampling Date:	5/18/2021
State: <u>VA</u>	Sampling Point: RI) W_001
		(%): <u>0</u>
If no, explain in Re	emarks.)	
		No
		_
	,	tures, etc.
V V	**-	
Yes^	No	
	Observed Classific	cations:
	Cowardin:	
Secondary Indica	tors (minimum of tw	o required)
Surface Soil (Cracks (B6)	
_	, ,	ırface (B8)
		,,
	, ,	
		ery (C9)
	-	
	, ,	
		J)
		-
ydrology Presen	t? Yesx	No
l-blo:		
lable:		
		-
	Secondary Indica Sparsely Veg Drainage Pat Moss Trim Li Dry-Season V Crayfish Burr Saturation Vi Geomorphic Shallow Aqui X FAC-Neutral Sphagnum m	

VEGETATION (Five Strata) – Use scientific nan	nes of pla	ants.		Sam	npling Point: F	RD W 001
		Dominant		Dominance Test worksheet:		
<u>Tree Stratum</u> (Plot size: <u>30 ft</u>) 1. <u>N/A</u>				Number of Dominant Species That Are OBL, FACW, or FAC:	1	(A)
2 3				Total Number of Dominant Species Across All Strata:	1	(B)
4 5				Percent of Dominant Species That Are OBL, FACW, or FAC	100.09	<u>%</u> (A/B)
6				Prevalence Index worksheet	:	
		= Total Cov		Total % Cover of:		oy:
50% of total cover: 0	20% of	total cover		OBL species15		
Sapling Stratum (Plot size: 30 ft)				FACW species 85	x 2 =17	70
1. <u>N/A</u>				FAC species0	x 3 =)
2				FACU species0		
3				UPL species0		
4				Column Totals:100		
5 6						
0		= Total Cov		Prevalence Index = B/A		
50% of total cover: 0				Hydrophytic Vegetation India		
Shrub Stratum (Plot size: 30 ft)	2070 01	total cover		1 - Rapid Test for Hydroph	-	on
1. <u>N/A</u>				X 2 - Dominance Test is >50		
2				X 3 - Prevalence Index is ≤3		
3.				Problematic Hydrophytic \	regetation (E	=xpiain)
4.				Indicators of budgie soil and	atland budsal	laan i muunt
5				Indicators of hydric soil and w be present, unless disturbed o		
6.				Definitions of Five Vegetatio	n Strata:	
		= Total Cov				
50% of total cover: 0				Tree – Woody plants, excludin approximately 20 ft (6 m) or me		
Herb Stratum (Plot size: 5 ft)				(7.6 cm) or larger in diameter a		
1. Phragmites australis, Common Reed	<u>75</u>	Yes	<u>FACW</u>	Sapling – Woody plants, exclu	ıdina woody	vines.
2. Juncus effusus, Lamp Rush				approximately 20 ft (6 m) or me		
3. Carex crinita, Fringed Sedge				than 3 in. (7.6 cm) DBH.		
4				Shrub - Woody plants, exclud		
5				approximately 3 to 20 ft (1 to 6	m) in height	
6				Herb - All herbaceous (non-we		
7				herbaceous vines, regardless		•
8				plants, except woody vines, les 3 ft (1 m) in height.	ss man appro	xiiilateiy
9				Manda di Allanda di Al		af haimht
10				Woody vine – All woody vines	, regardiess	or neight.
11						
	100	= Total Cov	er			
50% of total cover:50	20% of	total cover	20			
Woody Vine Stratum (Plot size: 30 ft)						
1. <u>N/A</u>						
2						
3						
4						
5				Hydrophytic		
		= Total Cov		Vegetation Present? Yes ×	No	
50% of total cover: 0		total cover	: <u> </u>	11030111: 163	_ '''	
Remarks: (If observed, list morphological adaptations belo	w).					

SOIL Sampling Point: RD_W_001

		to the depth				or contirm	the absence of i	ndicators.)	
Depth (inches)	Matrix Color (moist)	 _	Color (moist)	x Features %	Type ¹	Loc ²	Texture	Remarks	
0-4	10YR 3/2	100%	Color (IIIOlor)		.,,,,,,		Silty clay	Tromaine.	
4-20	10YR 4/1						Clay		
				-					
	Concentration, D=Dep					ains.		=Pore Lining, M=Matrix.	
Hydric Soil	Indicators: (Applic	cable to all LF						Problematic Hydric Soils ³ :	
Histoso			Polyvalue Be				· · · · · · · · · · · · · · · · · · ·	(A9) (LRR O)	
	pipedon (A2)		Thin Dark Su					(A10) (LRR S)	
	listic (A3)		Loamy Muck	_		O)		Vertic (F18) (outside MLRA 15	, ,
	en Sulfide (A4) ed Layers (A5)		Loamy Gleye X Depleted Mail	,	F2)			Floodplain Soils (F19) (LRR P, s Bright Loamy Soils (F20)	5, 1)
_	Bodies (A6) (LRR F	P. T. U)	Redox Dark		6)		(MLRA		
	ucky Mineral (A7) (L		Depleted Dai	`	,		•	nt Material (TF2)	
	resence (A8) (LRR I		Redox Depre		` '			ow Dark Surface (TF12)	
	uck (A9) (LRR P, T)	,	Marl (F10) (L	,				olain in Remarks)	
Deplete	ed Below Dark Surfac	ce (A11)	Depleted Ocl	hric (F11)	MLRA 1	51)			
	ark Surface (A12)		Iron-Mangan				•	rs of hydrophytic vegetation and	t
_	Prairie Redox (A16) (Umbric Surfa	. ,	,	, U)		d hydrology must be present,	
	Mucky Mineral (S1) (LRR O, S)	Delta Ochric		-	0 A 450 D)	unless	disturbed or problematic.	
	Gleyed Matrix (S4) Redox (S5)		Reduced Ver _ Piedmont Flo	, , ,			λΑ\		
	d Matrix (S6)						, A) A 149A, 153C, 15	3D)	
	urface (S7) (LRR P, 3	S. T. U)		ngni Loun	11, 00110 (1	20) (111211)	(140/1, 1000, 10	<i>55</i> ,	
	Layer (if observed)								
Туре: <u>N</u> ,									
	nches): N/A						Hydric Soil Pre	esent? Yesx No	
Remarks:			_				,		
rtomanto.									

Date: 5/18/21

Feature Name: RD_W_001





Photograph Direction East

Comments:

Photograph Direction North

Comments:





Photograph Direction South

Comments:

Photograph Direction West

Project/Site: Dominion CVOW	I	Ci	ty/County: Virgi	nia Beach/V	irginia Beach	Sampling Date:	5/18/2021
Applicant/Owner: Dominion				8	State: VA	Sampling Point: R	D W-001 UP
Investigator(s): R. Delahunty		Se	ection, Township	. Range:			
Landform (hillslope, terrace, et							(%): 0
Subregion (LRR or MLRA): MI							
							III. <u>VV G 30 +</u>
Soil Map Unit Name: 1 - Acredal		16-11: 11			NWI classifi	,	
Are climatic / hydrologic condit		-					
Are Vegetation, Soil							No
Are Vegetation, Soil	, or Hydrology _	naturally probl	ematic?	(If needed, e	xplain any answe	ers in Remarks.)	
SUMMARY OF FINDING	SS – Attach site	map showing s	ampling poi	nt locatio	ns, transects	s, important fea	atures, etc.
Hydrophytic Vegetation Prese		Nox	Is the Sam	pled Area			
Hydric Soil Present?		Nox	within a W	etland?	Yes	Nox	
Wetland Hydrology Present? Remarks:	res	Nox					
Data point taken within a m	nowed/maintained	graced area				Observed Classif	
Data point taken within a n	lowed/maintained	grasseu area.				Cowardin:	
HYDROLOGY							
Wetland Hydrology Indicate	ors:				Secondary Indica	ators (minimum of to	vo required)
Primary Indicators (minimum		11.77			_	Cracks (B6)	
Surface Water (A1)		Aquatic Fauna (B13)				getated Concave S	urface (B8)
High Water Table (A2)		Marl Deposits (B15) (atterns (B10)	
Saturation (A3)		Hydrogen Sulfide Odd			Moss Trim L	, ,	
Water Marks (B1)		Oxidized Rhizosphere		Roots (C3)		Water Table (C2)	
Sediment Deposits (B2)		Presence of Reduced		(06)	Crayfish Bu		· (CO)
Drift Deposits (B3) Algal Mat or Crust (B4)		Recent Iron Reductio Thin Muck Surface (C		(06)		'isible on Aerial Ima : Position (D2)	gery (C9)
Iron Deposits (B5)	_	Other (Explain in Ren	,		Shallow Aqu		
Inundation Visible on Aer		Other (Explain in Ken	naiks)		FAC-Neutra		
Water-Stained Leaves (E	. , , ,					noss (D8) (LRR T, I	un l
Field Observations:	,,,						-
Surface Water Present?	Yes No	Depth (inches):					
Water Table Present?		Depth (inches):					
Saturation Present?		Depth (inches):		Wetland H	vdrology Prese	nt? Yes	No_x_
(includes capillary fringe)							
Describe Recorded Data (stre	eam gauge, monitorir	g well, aerial photos,	previous inspec	tions), if avai	lable:		
Remarks:							
No hydrology indicators ob	served.						
							1

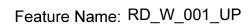
Sampling	Point:	RD	\٨/	001	LIE
Sampilliu	POIIII.	nυ	vv	OOT	Оr

		Dominant		Dominance Test worksheet:			
Tree Stratum (Plot size: 30 ft)	% Cover	Species?	Status	Number of Dominant Species			
1. <u>N/A</u>				That Are OBL, FACW, or FAC:0 (A)			
2				Total Number of Dominant			
3				Species Across All Strata: 1 (B)			
4.				Opedies / toless / till otilutu.			
				Percent of Dominant Species			
5				That Are OBL, FACW, or FAC: (A/B)			
6				Prevalence Index worksheet:			
	0 :	= Total Cov	er				
50% of total cover:0	20% of	total cover:	0	Total % Cover of: Multiply by:			
Sapling Stratum (Plot size: 30 ft)				OBL species0 x 1 =0			
- NI/A				FACW species0 x 2 =0			
				FAC species0 x 3 =0			
2				FACU species100 x 4 =400			
3				UPL species0 x 5 =0			
4							
5				Column Totals:(A)(B)			
6				Prevalence Index = B/A =4.00			
		= Total Cov					
500/ of total agrees 0				Hydrophytic Vegetation Indicators:			
50% of total cover: 0	20% 01	total cover:		1 - Rapid Test for Hydrophytic Vegetation			
Shrub Stratum (Plot size: 30 ft)				2 - Dominance Test is >50%			
1. <u>N/A</u>				3 - Prevalence Index is ≤3.01			
2				Problematic Hydrophytic Vegetation¹ (Explain)			
3							
4				1			
				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.			
5							
6				Definitions of Five Vegetation Strata:			
	0 = Total Cover			Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.			
50% of total cover:0	20% of total cover:0						
Herb Stratum (Plot size: 5 ft)				(7.6 cm) or larger in diameter at breast height (DBH).			
1. Cynodon dactylon, Bermuda Grass	60	Yes	FACU	Sapling – Woody plants, excluding woody vines,			
Plantago lanceolata, English Plantain			FACU	approximately 20 ft (6 m) or more in height and less			
			FACU	than 3 in. (7.6 cm) DBH.			
3. Potentilla indica, Indian-Strawberry				Should Microsity and a state of the state of			
4. <u>Trifolium repens, White Clover</u>			<u>FACU</u>	Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.			
5. Taraxacum officinale, Common Dandelion	5	<u>No</u>	<u>FACU</u>	approximately 3 to 20 it (1 to 6 iii) iii neight.			
6				Herb – All herbaceous (non-woody) plants, including			
7				herbaceous vines, regardless of size, and woody			
8				plants, except woody vines, less than approximately 3 ft (1 m) in height.			
0.				3 it (1 m) in neight.			
9				Woody vine - All woody vines, regardless of height.			
10							
11							
	100 :	= Total Cov	er				
50% of total cover:50	20% of	total cover:	20				
Woody Vine Stratum (Plot size: 30 ft)							
1. N/A							
2							
3							
4							
5				Hydrophytic			
	0 :	= Total Cov	 er	Vegetation			
50% of total cover: 0				Present? Yes Nox			
		total cover:					
Remarks: (If observed, list morphological adaptations belo	w).						
Maintained Land - 3-6" stubble	.,.						
	,.						
	,.						

SOIL Sampling Point: RD_W-001_UP

Depth	cription: (Describe Matrix	to the depth		x Feature					
(inches)	Color (moist)	%	Color (moist)	%	_Type ¹	Loc ²	Texture	Remarks	
0-8	10YR 3/1	100%					Silty clay		
				- —					
				- ——					
Type: C=0	Concentration, D=Dep	letion DM-E	Peduced Matrix M	S-Macked	Sand Gr	aine	2l ocation: DI =	Pore Lining, M=Mat	riv
	Indicators: (Applic					allis.		Problematic Hydric	
Histoso			Polyvalue Be			RRSTII		_	
 -	Epipedon (A2)		Thin Dark Su					(A10) (LRR S)	
	listic (A3)		Loamy Muck					ertic (F18) (outside	MLRA 150A,B
Hydrog	en Sulfide (A4)		Loamy Gleye	ed Matrix (F2)			loodplain Soils (F19	
Stratifie	ed Layers (A5)		Depleted Ma	trix (F3)			Anomalous	Bright Loamy Soils	(F20)
_	Bodies (A6) (LRR F		Redox Dark	,	,		(MLRA 1	,	
	lucky Mineral (A7) (LI		Depleted Da		` '			Material (TF2)	
	Presence (A8) (LRR L	J)	Redox Depre		8)			w Dark Surface (TF	12)
	luck (A9) (LRR P, T) ed Below Dark Surfac	o (A11)	Marl (F10) (L Depleted Oc	,	(MIDA 1	54)	Other (Expi	ain in Remarks)	
	oark Surface (A12)	e (ATT)	Iron-Mangan	, ,	•	•	T) ³ Indicators	of hydrophytic veg	etation and
	Prairie Redox (A16) (I	VILRA 150A)			, , ,	, ,	,	hydrology must be p	
	Mucky Mineral (S1) (Delta Ochric	. , ,	,	, -,		listurbed or problem	
Sandy	Gleyed Matrix (S4)		Reduced Ver	rtic (F18) (MLRA 15	0A, 150B)		·	
Sandy	Redox (S5)		Piedmont Flo	oodplain S	oils (F19)	(MLRA 149	9A)		
	d Matrix (S6)		Anomalous E	Bright Loar	ny Soils (F20) (MLR/	A 149A, 153C, 153	D)	
	urface (S7) (LRR P, \$						T		
	Layer (if observed)	:							
	ard Clay Pack								.,
Depth (i	nches): <u>8</u>						Hydric Soil Pres	sent? Yes	Nox
Remarks:									
Restrictive	compacted layer p	reventing ful	I soil profile (20")) from bei	ing evalu	ated.			

Date: 5/18/21







Photograph Direction West

Comments: View of soil core

Photograph Direction North

Comments:





Photograph Direction South

Comments:

Photograph Direction East

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Dominion CVOW	City/County: Virginia Beach/Virginia Beach Sampling Date: 5/18/202
Applicant/Owner: Dominion	State: VA Sampling Point: RD W 002
Investigator(s): R. Delahunty	Section, Township, Range:
	Local relief (concave, convex, none): Concave Slope (%): 1
	36.772899 Long: -76.034937 Datum: WGS84
Soil Map Unit Name: 1 - Acredale silt loam	
Are climatic / hydrologic conditions on the site typical for this time of	
	tly disturbed? Are "Normal Circumstances" present? Yesx No
Are Vegetation, Soil, or Hydrology naturally	problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	ng sampling point locations, transects, important features, etc
Understadie Verstellen Bressett	
Hydrophytic Vegetation Present?	is the Sampled Area
Wetland Hydrology Present? Yes X No	within a Wetland? Yesx No
Remarks:	Observed Classifications:
Nemarks.	
	Cowardin:
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
1	
Primary Indicators (minimum of one is required; check all that apply	_ ` '
x Surface Water (A1) Aquatic Fauna (B	
High Water Table (A2) Marl Deposits (B X Saturation (A3) Hydrogen Sulfide	
	e Odor (C1) Moss Trim Lines (B16) pheres along Living Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2) Presence of Red	
	uction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface	
Iron Deposits (B5) Other (Explain in	
Inundation Visible on Aerial Imagery (B7)	× FAC-Neutral Test (D5)
× Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	Springman moss (55) (21411.) 5)
Surface Water Present? Yes _ x _ No Depth (inche	es); 6"
Water Table Present? Yes No _x Depth (inche	
Saturation Present? Yes x No Depth (inche	es): 0 Wetland Hydrology Present? Yes × No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial pho	otos, previous inspections), if available:
Remarks:	

	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30 ft</u>)	% Cover	Species?	Status	Number of Dominant Species
1. <u>N/A</u>				That Are OBL, FACW, or FAC:3 (A)
2				Total Number of Dominant
3				Species Across All Strata: 3 (B)
4				
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
6				That Ale OBL, PACVV, of PAC (A/B)
		= Total Cov		Prevalence Index worksheet:
50% of total cover: 0				Total % Cover of: Multiply by:
	20 % 01	total cover.		OBL species90 x 1 =90
Sapling Stratum (Plot size: 15 ft)	_	Vaa	FAC	FACW species 0 x 2 = 0
1. Pinus taeda, Loblolly Pine			FAC	FAC species 10 x 3 = 30
2				FACU species 0 x 4 = 0
3				UPL species 0 x 5 = 0
4				
5				Column Totals:100 (A)120 (B)
6				Prevalence Index = B/A =1.20
	5	= Total Cov	er	Hydrophytic Vegetation Indicators:
50% of total cover: 2.5	20% of	total cover:	1	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft)				X 2 - Dominance Test is >50%
Morella cerifera, Southern Bayberry	5	<u>Yes</u>	FAC	x 3 - Prevalence Index is ≤3.01
2				Problematic Hydrophytic Vegetation¹ (Explain)
3.				Problematic Hydrophytic Vegetation (Explain)
4				Indicators of hydric call and watland hydrology must
5.				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
6				Definitions of Five Vegetation Strata:
·		= Total Cov		John Marie Control Control
500/ official course 2.5				Tree – Woody plants, excluding woody vines,
50% of total cover: 2.5	20% 01	total cover.		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: 30 ft)	70	Vaa	ODI	
1. Typha angustifolia, Narrow-Leaf Cat-Tail				Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
2. Juncus effusus, Lamp Rush				than 3 in. (7.6 cm) DBH.
3. Persicaria sagittata, Arrow-Leaf Tearthumb				
4. <u>Carex Iurida, Shallow Sedge</u>	5	<u>No</u>	OBL	Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
5				approximately 3 to 20 it (1 to 6 iii) iii neight.
6				Herb – All herbaceous (non-woody) plants, including
7				herbaceous vines, regardless of size, <u>and</u> woody plants, except woody vines, less than approximately
8				3 ft (1 m) in height.
9				
10				Woody vine - All woody vines, regardless of height.
11.				
		= Total Cov	 er	
50% of total cover: 45				
	20% 01	total cover.		
Woody Vine Stratum (Plot size: 30 ft)				
1. <u>N/A</u>				
2				
3				
4				
5				Hydrophytic
	0	= Total Cov	er	Vegetation
50% of total cover:0	20% of	total cover:	0	Present?
Remarks: (If observed, list morphological adaptations belo				1
	· ·			

Sampling Point: RD W 002

SolL Sampling Point: RD_W_002

Depth	cription: (Describe Matrix	to the depti		x Feature:		or commi	i tile abselice of il	nuicators.)
(inches)	Color (moist)	%	Color (moist)	%	_Type ¹	Loc ²	Texture	Remarks
0-8	10YR 5/1	100%					Silty clay	
8-20	10YR 6/1	80% 1	.0YR 5/6	20%	С	M	Clay	
1								
	Concentration, D=Dep Indicators: (Applic					ains.		=Pore Lining, M=Matrix. Problematic Hydric Soils ³ :
Histoso		able to all L	Polyvalue Be			DD C T II		
	pipedon (A2)		Thin Dark Su				· —	(A3) (LRR S)
	listic (A3)		Loamy Muck					/ertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)		Loamy Gleye	`	F2)			Floodplain Soils (F19) (LRR P, S, T)
	d Layers (A5)	T	× Depleted Ma		·C)			s Bright Loamy Soils (F20)
	: Bodies (A6) (LRR P ucky Mineral (A7) (LF		Redox Dark Depleted Da	,	,		(MLRA 1 Red Paren	t Material (TF2)
	resence (A8) (LRR U		Redox Depre		. ,			ow Dark Surface (TF12)
	uck (A9) (LRR P, T)	,	Marl (F10) (L	,	-,			lain in Remarks)
	d Below Dark Surfac	e (A11)	Depleted Oc	, ,			9	
	ark Surface (A12)	AL DA 450A)	Iron-Mangan Umbric Surfa				,	s of hydrophytic vegetation and
	Prairie Redox (A16) (N Mucky Mineral (S1) (I		Umbric Surfa	` ' '	,	, 0)		I hydrology must be present, disturbed or problematic.
	Gleyed Matrix (S4)	0, 0,	Reduced Ver		-	0A, 150B)		arstarbed or problematio.
Sandy	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	9A)	
	d Matrix (S6)		Anomalous E	Bright Loar	ny Soils (F20) (MLR	A 149A, 153C, 153	3D)
	urface (S7) (LRR P, S Layer (if observed):						T	
Type: N								
	nches): N/A						Hydric Soil Pre	sent? Yes <u>x</u> No
Remarks:	101103). <u>1-17-1</u>						Tiyane con Tre	30111: 103 110
rtomants.								

Date: 5/18/21

Feature Name: RD_W_002



Photograph Number ____1

Photograph Direction _____

Comments: Veiw of ground



Photograph Number 2

Photograph Direction _____

Comments:



Photograph Number <u>3</u>

Photograph Direction _____

Comments:



Photograph Number ___4

Photograph Direction _____

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Dominion CVOW	City/County: Virginia Beach/Virginia Beach Sampling Date: 5/18/2021
Applicant/Owner: Dominion	
Investigator(s): R. Delahunty	Section, Township, Range:
	_ocal relief (concave, convex, none): None Slope (%): 0
	36.77279 Long:
	NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of year	
Are Vegetation, Soil, or Hydrology significantly of	disturbed? Are "Normal Circumstances" present? Yesx_ No
Are Vegetation, Soil, or Hydrology naturally prob	
	sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yesx No	
Hydric Soil Present? Yes No x	Is the Sampled Area
Wetland Hydrology Present? Yes Nox	within a Wetland? Yes No×
Remarks:	Observed Classifications:
	Cowardin:
	cowarum.
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B13	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B15)	
Saturation (A3) Hydrogen Sulfide Oc	dor (C1) Moss Trim Lines (B16)
	res along Living Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2) Presence of Reduce	ed Iron (C4) Crayfish Burrows (C8)
	on in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface ((C7) Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in Re	emarks) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes Nox Depth (inches):	
Water Table Present? Yes Nox Depth (inches):	
Saturation Present? Yes No _x Depth (inches):	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos	s. previous inspections). if available;
Dodding	, , , , , , , , , , , , , , , , , , , ,
Remarks:	
No hydrology indicators observed.	
The Hydrology maleacors observes.	

		Dominant		Dominance Test worksheet:		
Tree Stratum (Plot size: 30 ft)		Species?		Number of Dominant Species	-	
1. Pinus taeda, Loblolly Pine				That Are OBL, FACW, or FAC:	5	(A)
2. Pyrus calleryana, Callery Pear	10	<u>No</u>	<u>UPL</u>	Total Number of Dominant		
3. <u>Liquidambar styraciflua, Sweet-Gum</u>	10	<u>No</u>	FAC	Species Across All Strata:	7	(B)
4						
5				Percent of Dominant Species That Are OBL, FACW, or FAC:	71.4%	(A/D)
6.				mat Ale OBL, FACW, of FAC.	721170	(/// 15)
·		= Total Cov		Prevalence Index worksheet:		
500/ official covery 40				Total % Cover of:	Multiply by:	_
50% of total cover: <u>40</u>	20% 0	r total cover:		OBL species0 x		
Sapling Stratum (Plot size: 30 ft)				FACW species 0 x		
1. <u>N/A</u>				FAC species 95 x		
2				FACU species 5 x		
3						
4				UPL species15 x :		
5				Column Totals:115 (A)	380	_ (B)
6				Prevalence Index = B/A =	3 30	
		= Total Cov				
50% of total cover:0				Hydrophytic Vegetation Indica		
	20% 0	i total cover.		1 - Rapid Test for Hydrophyt		
Shrub Stratum (Plot size: 30 ft)				X 2 - Dominance Test is >50%	5	
1. Morella cerifera, Southern Bayberry				3 - Prevalence Index is ≤3.0	1	
2. <u>Liquidambar styraciflua, Sweet-Gum</u>	5	Yes	<u>FAC</u>	Problematic Hydrophytic Veg	getation¹ (Explai	in)
3						
4				¹ Indicators of hydric soil and wetl	land hydrology r	nust
5				be present, unless disturbed or p		iiust
6.				Definitions of Five Vegetation	Strata:	
··-		= Total Cov			- Contraction	
500/ official course 7.5				Tree - Woody plants, excluding		
50% of total cover:	20% of	total cover:	3	approximately 20 ft (6 m) or more (7.6 cm) or larger in diameter at the		
Herb Stratum (Plot size: 30 ft)				(7.0 cm) or larger in diameter at t	breast fielglit (D	ып).
1. Apocynum androsaemifolium, Spreading Dogbane			UPL	Sapling - Woody plants, excludi		
2. Toxicodendron radicans, Eastern Poison Ivy	5	<u>Yes</u>	<u>FAC</u>	approximately 20 ft (6 m) or more	e in height and l	ess
3. Parthenocissus quinquefolia, Virginia-Creeper	5	Yes	FACU	than 3 in. (7.6 cm) DBH.		
4. Acer rubrum, Red Maple	5	Yes	FAC	Shrub - Woody plants, excluding		
5				approximately 3 to 20 ft (1 to 6 m	n) in height.	
6.				Herb - All herbaceous (non-woo	ody) plants inclu	dina
				herbaceous vines, regardless of		
7				plants, except woody vines, less		
8				3 ft (1 m) in height.		
9				Woody vine - All woody vines, r	regardless of he	iaht.
10					- g	· J ·····
11						
	20	= Total Cov	er			
50% of total cover:10	20% of	f total cover:	4			
Woody Vine Stratum (Plot size: 30 ft)						
1. <u>N/A</u>						
2						
3						
4						
5				Hydrophytic		
	0	= Total Cov	er	Vegetation	No	
50% of total cover:0	20% of	f total cover:	0	Present? Yesx	No	
Remarks: (If observed, list morphological adaptations belo	w).			1		

Soll Sampling Point: RD_W_002_UP

Profile Des Depth	cription: (Describe Matrix	to the depth		ment the i ox Feature:		or confirn	n the absence of in	dicators.)
(inches)	Color (moist)	%	Color (moist)	<u> </u>	Type ¹ _	_Loc ²	Texture	Remarks
0-8	10YR 4/2	100%					Silty clay loam	
8-20	10YR 4/2	100%					Silty clay	
	101111/2						Sitey city	
				- ——				
¹ Type: C=C	oncentration, D=Dep	letion RM=R	educed Matrix M	S=Masked	Sand Gr	ains	² Location: PL=I	Pore Lining, M=Matrix.
	Indicators: (Applic					шпэ.		Problematic Hydric Soils ³ :
Histoso			Polyvalue Be			.RR S. T. U		_
	pipedon (A2)		Thin Dark Su				· —	(A10) (LRR S)
Black H	listic (A3)		Loamy Muck				Reduced Ve	ertic (F18) (outside MLRA 150A,B)
Hydrog	en Sulfide (A4)		Loamy Gleye	ed Matrix (F2)		Piedmont F	loodplain Soils (F19) (LRR P, S, T)
	d Layers (A5)		Depleted Ma					Bright Loamy Soils (F20)
	Bodies (A6) (LRR P		Redox Dark	,	,		(MLRA 15	,
	ucky Mineral (A7) (LI resence (A8) (LRR L		Depleted Da Redox Depre		` '			Material (TF2) w Dark Surface (TF12)
	uck (A9) (LRR P, T)	')	Marl (F10) (L		5)			ain in Remarks)
	d Below Dark Surfac	e (A11)	Depleted Oc	•	(MLRA 1	51)	отнег (Ехри	an in Normano,
	ark Surface (A12)	()	Iron-Mangan	, ,	•		T) ³ Indicators	of hydrophytic vegetation and
Coast F	Prairie Redox (A16) (I	VILRA 150A)	Umbric Surfa	ce (F13) (LRR P, T	, U)	wetland	hydrology must be present,
	Mucky Mineral (S1) (I	LRR O, S)	Delta Ochric		-			isturbed or problematic.
	Gleyed Matrix (S4)		Reduced Ve	, , ,				
	Redox (S5)		Piedmont Flo					D)
	d Matrix (S6) urface (S7) (LRR P, \$	S T 11)	Anomalous E	Sright Loar	ny sons (F20) (WILK	RA 149A, 153C, 153	ь,
	Layer (if observed):						T	
Type: No								
	iches): N/A						Hydric Soil Pres	sent? Yes Nox
Remarks:							1 7	
rtomanto.								

Date: 5/18/21

Feature Name: RD_W_002_UP





Photograph Direction South

Comments:

Photograph Direction North

Comments:





Photograph Direction West

Comments:

Photograph Direction East

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Dominion CVOW	!	City/C	ounty: Virginia Beach/	Virginia Beach	Sampling Date:	5/18/2021
Applicant/Owner: Dominion				State: VA	Sampling Point: RI	O_W_003
Investigator(s): R. Delahunty		Section	on, Township, Range:			
Landform (hillslope, terrace, etc						(%): 1
Subregion (LRR or MLRA): ML						
Soil Map Unit Name: 1 - Acredate						II. <u>W 656 1</u>
Are climatic / hydrologic conditi					,	
Are Vegetation, Soil		-				No
Are Vegetation, Soil				explain any answe		
SUMMARY OF FINDING						tures, etc.
Hydrophytic Vegetation Prese	ent? Yes X	No				
Hydric Soil Present?		No	Is the Sampled Area			
Wetland Hydrology Present?	Yesx		within a Wetland?	Yesx	No	
Remarks:					Observed Classifi	cations:
Data point taken within exis	sting overhead utility	easement. Surface wa	ater drains from wetla	and through	Cowardin:	
RD S 002.	,			· ·	cowarani.	
HYDROLOGY						
Wetland Hydrology Indicato	are:			Secondary Indica	itors (minimum of tw	o required)
		als all that apply			1	io requirea)
Primary Indicators (minimum				Surface Soil	, ,	f (DO)
Surface Water (A1)		quatic Fauna (B13)			getated Concave Su	ınace (B8)
High Water Table (A2)		arl Deposits (B15) (LRF	•	Drainage Pa		
Saturation (A3)		ydrogen Sulfide Odor (0 xidized Rhizospheres a		Moss Trim L	, ,	
Water Marks (B1) Sediment Deposits (B2)		resence of Reduced Iron		Crayfish Bur	Water Table (C2)	
Drift Deposits (B2)		ecent Iron Reduction in			sible on Aerial Imag	ron((C0)
Algal Mat or Crust (B4)		nin Muck Surface (C7)	Tilled Solls (Co)	x Geomorphic	-	jery (Ca)
Iron Deposits (B5)	_	ther (Explain in Remark	e)	Shallow Aqu		
Inundation Visible on Aer		and (Explain in Norman	3)	× FAC-Neutral	, ,	
× Water-Stained Leaves (B	. , , ,			_	noss (D8) (LRR T, L	n l
Field Observations:					(20) (2:::::)	'
Surface Water Present?	Yes No X	_ Depth (inches):				
Water Table Present?						
Saturation Present?	Yes No X	_ Depth (inches):	Wetland	Hydrology Preser	it? Yes x	No
(includes capillary fringe)				, ,,		
Describe Recorded Data (stre	am gauge, monitoring	well, aerial photos, pre	vious inspections), if av	ailable:		
Remarks:						
Surface water drains from v	vetlands to RD-S2					
ļ]

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft)	% Cover	Species?	Status	Number of Dominant Species
				That Are OBL, FACW, or FAC:4 (A)
2				Total Number of Dominant
3				Species Across All Strata:4 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100.0% (A/B)
6				Drawalawa a Inday wandaha ata
		= Total Cov		Prevalence Index worksheet:
50% of total cover: 0	20% of	total cover:	0	
Sapling Stratum (Plot size: 30 ft)				OBL species 25 x 1 = 25
1. <u>N/A</u>				FACW species75 x 2 =150
2				FAC species x 3 = 75
3				FACU species
4				UPL species 0 x 5 = 0
5				Column Totals: <u>125</u> (A) <u>250</u> (B)
6				Prevalence Index = B/A =2.00
	0	= Total Cov	er	Hydrophytic Vegetation Indicators:
50% of total cover: 0	20% of	total cover:	0	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft)				x 2 - Dominance Test is >50%
1. <u>N/A</u>				x 3 - Prevalence Index is ≤3.01
2				Problematic Hydrophytic Vegetation¹ (Explain)
3				
4				¹ Indicators of hydric soil and wetland hydrology must
5				be present, unless disturbed or problematic.
6.				Definitions of Five Vegetation Strata:
		= Total Cov	er	To a March start and discount in a
50% of total cover:0				Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: 30 ft)	_			(7.6 cm) or larger in diameter at breast height (DBH).
1. Phragmites australis, Common Reed	50	Yes	FACW	Sapling – Woody plants, excluding woody vines,
2. Solidago rugosa, Wrinkle-Leaf Goldenrod				approximately 20 ft (6 m) or more in height and less
3. Juncus effusus, Lamp Rush				than 3 in. (7.6 cm) DBH.
4. Carex crinita, Fringed Sedge				Shrub – Woody plants, excluding woody vines,
5				approximately 3 to 20 ft (1 to 6 m) in height.
6.				Herb – All herbaceous (non-woody) plants, including
7				herbaceous vines, regardless of size, and woody
8				plants, except woody vines, less than approximately 3 ft (1 m) in height.
9				Sit (1 m) in neight.
				Woody vine - All woody vines, regardless of height.
10				
11				
50.5		= Total Cov		
50% of total cover: <u>62.5</u>	20% of	total cover:	25	
Woody Vine Stratum (Plot size: 30 ft)				
1. <u>N/A</u>				
2				
3				
4				
5				Hydrophytic
	0	= Total Cov	er	Vegetation
50% of total cover:0	20% of	total cover:	0	Present? Yes <u>*</u> No
Remarks: (If observed, list morphological adaptations below				1
, , , , , , , , , , , , , , , , , , , ,	•			

Sampling Point: RD W 003

SolL Sampling Point: RD_W_003

Depth	Matrix		Redo	x Features			the absence of	,
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-10	10YR 5/2	95%	10YR 5/6	5%	<u>C</u>	M	Clay	
1Type: C=C	oncentration, D=Dep	letion PM-	- Deduced Matrix M	S-Masked	Sand Gr	———	2l ocation: DI	_=Pore Lining, M=Matrix.
	Indicators: (Application)					XIII 5.		r Problematic Hydric Soils ³ :
Histosol			Polyvalue Be			RR S, T, U		ck (A9) (LRR O)
	pipedon (A2)		Thin Dark Su					k (A10) (LRR S)
	istic (A3)		Loamy Muck	-		O)		Vertic (F18) (outside MLRA 150)
	en Sulfide (A4) d Layers (A5)		Loamy Gleye _x Depleted Ma	,	-2)			: Floodplain Soils (F19) (LRR P, S us Bright Loamy Soils (F20)
	: Bodies (A6) (LRR P,	T. U)	Redox Dark		3)		(MLRA	• • • •
_	ucky Mineral (A7) (LF		_	,	,		•	nt Material (TF2)
	resence (A8) (LRR U)	Redox Depre	,)			llow Dark Surface (TF12)
	uck (A9) (LRR P, T)	- (844)	Marl (F10) (L	,		-4\	Other (Ex	plain in Remarks)
	d Below Dark Surface ark Surface (A12)	e (ATT)	Depleted Oc Iron-Mangan	, ,		-	T) ³ Indicate	ors of hydrophytic vegetation and
	rairie Redox (A16) (N	ILRA 150 <i>A</i>	_				•	d hydrology must be present,
	Mucky Mineral (S1) (L	.RR O, S)	Delta Ochric		-		unless	disturbed or problematic.
	Gleyed Matrix (S4)		Reduced Ve	, , ,			2.5	
	Redox (S5) d Matrix (S6)		Piedmont Flo				9A) A 149A, 153C, 1	53D)
	urface (S7) (LRR P, S	, T, U)	//////////////////////////////////	Dright Loan	19 00113 (1	20) (МЕТО	1 140A, 100C, 1	33 5 ,
Restrictive	Layer (if observed):							
Туре: <u>На</u>	ard Pack Clay							
							Hydric Soil Pr	esent? Yes <u> </u>
Depth (in	iches): <u>10</u>							
Remarks:	,							
Remarks:	layer at 10 inches w	hich preve	ented evaluation o	of the full s	oil profil	e (20 inche	es).	
Remarks:	,	hich preve	ented evaluation o	of the full s	oil profil	e (20 inche	es).	
Remarks:	,	hich preve	ented evaluation o	f the full s	oil profil	e (20 inche	es).	
Remarks:	,	hich preve	ented evaluation o	f the full s	oil profil	e (20 inche	es).	
Remarks:	,	hich preve	ented evaluation o	of the full s	oil profil	e (20 inche	es).	
Remarks:	,	hich preve	ented evaluation o	f the full s	oil profil	e (20 inche	es).	
Remarks:	,	hich preve	ented evaluation o	f the full s	oil profil	e (20 inche	es).	
Remarks:	,	hich preve	ented evaluation o	f the full s	oil profil	e (20 inche	es).	
Remarks:	,	hich preve	ented evaluation o	f the full s	oil profil	e (20 inche	es).	
Remarks:	,	hich preve	ented evaluation o	f the full s	oil profil	e (20 inche	es).	
Remarks:	,	hich preve	ented evaluation o	f the full s	oil profil	e (20 inche	es).	
Remarks:	,	hich preve	ented evaluation o	f the full s	oil profil	e (20 inche	es).	
Remarks:	,	hich preve	ented evaluation o	f the full s	oil profil	e (20 inche	es).	
Remarks:	,	hich preve	ented evaluation o	f the full s	oil profil	e (20 inche	es).	
Remarks:	,	hich preve	ented evaluation o	f the full s	oil profil	e (20 inche	es).	
Remarks:	,	hich preve	ented evaluation o	f the full s	oil profil	e (20 inche	es).	
Remarks:	,	hich preve	ented evaluation o	f the full s	oil profil	e (20 inche	es).	
Remarks:	,	hich preve	ented evaluation o	f the full s	oil profil	e (20 inche	es).	
Remarks:	,	hich preve	ented evaluation o	f the full s	oil profil	e (20 inche	es).	

Date: 5/18/21

Feature Name: RD_W_003



Photograph Number 1
Photograph Direction South

Comments:



Photograph Number 2
Photograph Direction North

Comments:



Photograph Number 3
Photograph Direction West

Comments:



Photograph Number 4

Photograph Direction East

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Dominion CVO	N		Cit	y/County: Virgi	nia Beach/\	Virginia Beach	Sampling Date:	5/18/2021
Applicant/Owner: Dominion						State: VA	Sampling Point: RD	UP
Investigator(s): R. Delahunty			Se	ection, Township	, Range:			
Landform (hillslope, terrace, e							Slope (9	%): O
Subregion (LRR or MLRA): M								
Soil Map Unit Name: 1 - Acreda							ation: N/A	
Are climatic / hydrologic condi							,	
Are Vegetation, Soil _			-					No
								_ 140
Are Vegetation, Soil _ SUMMARY OF FINDING					,	explain any answe	,	ures. etc.
							,	
Hydrophytic Vegetation Pres			Nox	Is the Sam	pled Area			
Hydric Soil Present? Wetland Hydrology Present?			Nox Nox	within a W	etland?	Yes	Nox	
Remarks:							Ohaamad Glassifias	******
Data point taken within a	maintained law	/n.					Observed Classifica	- 1
Data point taken within a	namea nea						Cowardin:	
HYDROLOGY								
Wetland Hydrology Indicat	ors:					Secondary Indica	tors (minimum of two	required)
Primary Indicators (minimum	of one is requi	red; chec	k all that apply)			Surface Soil	Cracks (B6)	
Surface Water (A1)		Aq	uatic Fauna (B13)				etated Concave Sur	face (B8)
High Water Table (A2)		Ma	ırl Deposits (B15) (I	LRR U)		Drainage Pat		, ,
Saturation (A3)		Ну	drogen Sulfide Odo	or (C1)		Moss Trim Li	nes (B16)	
Water Marks (B1)		Ox	idized Rhizosphere	s along Living F	Roots (C3)	Dry-Season	Water Table (C2)	
Sediment Deposits (B2)		Pre	esence of Reduced	Iron (C4)		Crayfish Burr	rows (C8)	
Drift Deposits (B3)		Re	cent Iron Reduction	n in Tilled Soils ((C6)	Saturation Vi	sible on Aerial Image	ry (C9)
Algal Mat or Crust (B4)			in Muck Surface (C			Geomorphic		
Iron Deposits (B5)			her (Explain in Rem	narks)		Shallow Aqui		
Inundation Visible on Ae		7)				FAC-Neutral	, ,	
Water-Stained Leaves (B9)					Sphagnum m	noss (D8) (LRR T, U)	
Field Observations:	V _a -	v	Denti (inclusion)	N / A				
Surface Water Present?			Depth (inches): N					
Water Table Present?	Yes	NO	Depth (inches): N	N/A	Wedlend I	Undualani Duaaan	42 Van 1	10 V
Saturation Present? (includes capillary fringe)	res	NO	_ Depth (inches): _	N/A	vvetiand	Hydrology Presen	t? res N	lox
Describe Recorded Data (str	ream gauge, mo	onitoring v	well, aerial photos,	previous inspec	tions), if ava	ailable:		
Remarks:								
No hydrology indicators of	oserved.							
†								1
I								II.

	Absolute	Dominant	Indicator	Dominance Test w	orksheet:		
Tree Stratum (Plot size: 30 ft) 1. N/A				Number of Dominar That Are OBL, FAC		0	(A)
2				Total Number of Do Species Across All		2	(B)
4. 5.				Percent of Dominan That Are OBL, FAC		0.0%	(A/B)
6				Prevalence Index \	worksheet.		
		= Total Cov		Total % Cover		Multiply by:	
50% of total cover: 0	20% o	f total cover	:0	OBL species			
Sapling Stratum (Plot size: 30 ft)				FACW species			
1. <u>N/A</u>				FAC species			
2				FACU species			
3				UPL species			_
4				Column Totals:			— (B)
5				Column Totals.	(,		(b)
6		= Total Co		Prevalence In			
50% of total cover: 0				Hydrophytic Veget			
Shrub Stratum (Plot size: 30 ft)	20% 0	i total cover		1 - Rapid Test 1			
1. N/A				2 - Dominance			
				3 - Prevalence			
2				Problematic Hy	drophytic Ve	getation' (Expla	ain)
3				l.,			
4				Indicators of hydric be present, unless of			must
5 6				Definitions of Five			
0		= Total Cov			_		
50% of total cover:0				Tree – Woody plant approximately 20 ft			2 in
Herb Stratum (Plot size: 5 ft)	20700	i total cover		(7.6 cm) or larger in			
1. <u>Cynodon dactylon, Bermuda Grass</u>	50	Ves	FΔCII	0			_
Dactylis glomerata, Orchard Grass			FACU	Sapling – Woody p approximately 20 ft			
Hieracium greenii, Green's Hawkweed				than 3 in. (7.6 cm) [DBH.	-	
Ranunculus abortivus, Kidney-Leaf Buttercup			FACW	Shrub – Woody pla	nts. excludin	a woody vines.	
Potentilla indica, Indian-Strawberry			FACU	approximately 3 to 2			
6. Oxalis stricta, Upright Yellow Wood-Sorrel			UPL	Herb - All herbaced	ous (non-wor	ndy) plants incl	ıdina
7. Rumex crispus, Curly Dock				herbaceous vines, r			
8. Trifolium repens, White Clover			FACU	plants, except wood 3 ft (1 m) in height.	ly vines, less	than approxim	ately
9				NAC - de des des Alles			-!4
10				Woody vine – All w	oody vines,	regardless of ne	eignt.
11							
		= Total Co	er				
50% of total cover: 50	20% o	f total cover	20				
Woody Vine Stratum (Plot size: 30 ft)							
1. <u>N/A</u>							
2							
3.							
4.							
5.				Hydrophytic			
		= Total Cov		Vegetation			
50% of total cover: 0				Present?	Yes	Nox	
Remarks: (If observed, list morphological adaptations belo				1			
Maintained lawn / Numerous lawn species	.,.						
'							

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Totalization: (Applicable to all LRRs, unless otherwise noted.) Historal (A1)	Depth (inches)	Matrix Color (moist)	———— —		Features	1 Loc ²	Texture	Domo	irke
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils*: Histosol (A1)				Color (moist)		Loc		Rema	IIKS
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	0-10	10YR 4/2					Silty clay loam		
Histosol (A1)									
Histosol (A1)									
Histosol (A1)									
Histosol (A1)									
Adric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)									
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)									
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)									
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)			 				2		
Histosol (A1)						Grains.			
Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) Muck Presence (A8) (LRR P, T) Depleted Dark Surface (F7) Muck Presence (A8) (LRR P, T) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Redox (S5) Sandy Redox (S5) Determine Mucky Mineral (S1) (LRR O, S) Sandy Redox (S5) Determine Mucky Mineral (S1) (LRR O, S) Sandy Redox (S7) Determine Mucky Mineral (S7) (LRR O, S) Sandy Redox (S7) Determine Mucky Mineral (S8) Determine Mucky Mineral (S9) Determine Muc			able to all LR					_	anc sons :
Black Histic (A3)			-				· —		
Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) Organic Bodies (A6) (LRR P, T, U) Scr Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F6) Muck Presence (A8) (LRR U) Construction Muck (A9) (LRR P, T) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Derived Matrix (F3) Anomalous Bright Loamy Soils (F20) (MLRA 153B) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Depleted Ochric (F11) (MLRA 151) Iron-Manganese Masses (F12) (LRR O, P, T) Wetland hydrology must be present, unless disturbed or problematic. Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F20) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Poetrictive Layer (if observed): Type: Hard pack soil Depth (inches): 10 Hydric Soil Present? Yes No		, , ,	-						
Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) Muck Presence (A8) (LRR U) 1 cm Muck (A9) (LRR P, T) Depleted Dark Surface (F1) Marl (F10) (LRR U) Depleted Depleted Ochric (F11) (MLRA 151) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Delta Ochric (F13) (MLRA 150A) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) estrictive Layer (if observed): Type: Hard pack soil Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) (MLRA 153B) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Depleted Ochric (F11) (MLRA 151) Iron-Manganese Masses (F12) (LRR O, P, T) Iron-Manganese Masses (F12) (LRR O, P, T) Wetland hydrology must be present, unless disturbed or problematic. Reduced Vertic (F18) (MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Deth (inches): 10 Hydric Soil Present? Yes No	_	` '				RR O)			
Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Iron-Manganese Masses (F12) (LRR O, P, T) Indicators of hydrophytic vegetation at the vegetation of the vege		, ,			, ,			•	
5 cm Mucky Mineral (A7) (LRR P, T, U) Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Depleted Dark Surface (F7) Marl (F10) (LRR U) Depleted Ochric (F11) (MLRA 151) Iron-Manganese Masses (F12) (LRR O, P, T) Olndicators of hydrophytic vegetation at wetland hydrology must be present, unless disturbed or problematic. Reduced Vertic (F13) (MLRA 151) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Destrictive Layer (if observed): Type: Hard pack soil Depth (inches): 10 Hydric Soil Present? Yes No	_								iolis (F20)
Muck Presence (A8) (LRR U)			-		, ,		•	,	
1 cm Muck (A9) (LRR P, T)									(TE12)
Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Delta Ochric (F11) (MLRA 151) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) estrictive Layer (if observed): Type: Hard pack soil Depth (inches): 10 Depleted Ochric (F11) (MLRA 151) Iron-Manganese Masses (F12) (LRR O, P, T	_	, , ,	'' .						, ,
Thick Dark Surface (A12)		. , . , ,	- (Δ11)			151)	Other (E	.xpiaiii iii iveiriaiks)	
Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) wetland hydrology must be present, Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) unless disturbed or problematic. Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) estrictive Layer (if observed): Type: Hard pack soil Depth (inches): 10 Hydric Soil Present? Yes No			(7(1)		, , ,	•	T) ³ Indicat	tors of hydrophytic	vegetation and
Sandy Mucky Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Destrictive Layer (if observed): Type: Hard pack soil Depth (inches): 10 Destrictive Layer (170 (MLRA 151)) Destrictive Layer (170 (MLRA 150A, 150B)) Hydric Soil Present? Yes No	_	, ,	MLRA 150A)	_	,	, , , ,	,		•
Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Pestrictive Layer (if observed): Type: Hard pack soil Depth (inches): 10 Hydric Soil Present? Yes No		, , ,	` '						
						-		-	
Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Hard pack soil Depth (inches): 10 Hydric Soil Present? Yes No		-							
Type: Hard pack soil Hydric Soil Present? Yes No	_				•		•	153D)	
Type: Hard pack soil Depth (inches): 10 Hydric Soil Present? Yes No	_ Dark Su	rface (S7) (LRR P, \$	S, T, U)						
Depth (inches): 10 Hydric Soil Present? Yes No	estrictive	Layer (if observed):							
	Type: Ha	rd pack soil		_					
	Depth (in	ches): 10					Hydric Soil P	resent? Yes	No ×
		,							
	omants.								

Date: _____

Feature Name: RD_W003/W004_UP





Photograph Direction North

Comments:

Photograph Direction East

Comments:





Photograph Direction South

Comments:

Photograph Direction West

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Dominion CVOW		City/Co	unty: Virginia Beach,	'Virginia Beach	Sampling Date:	5/18/2021		
Applicant/Owner: Dominion			State: <u>VA</u> Sampling Point: <u>RD</u>					
Investigator(s): R. Delahunty		Section	n, Township, Range:					
Landform (hillslope, terrace, etc.):						(%): 2		
Subregion (LRR or MLRA): MLRA								
Soil Map Unit Name: 1 - Acredale silt		Lat				II. <u>WG30+</u>		
•								
Are climatic / hydrologic conditions		-				N.		
Are Vegetation, Soil						No		
Are Vegetation, Soil	, or Hydrology	naturally problemat	ic? (If needed,	explain any answe	ers in Remarks.)			
SUMMARY OF FINDINGS	 Attach site map 	showing sam	oling point locati	ons, transects	, important fea	tures, etc.		
Hudrophytic Vagatation Procent	Yes X N	No.						
Hydrophytic Vegetation Present? Hydric Soil Present?	? Yes <u>x</u> N Yes <u>x</u> N		Is the Sampled Area					
Wetland Hydrology Present?	Yesx N		within a Wetland?	Yes	No			
Remarks:					Observed Classifi	cations:		
The western portion of wetlan	d RD W 004 is mainta	ined within the ex	kisting overhead utili	ty easement.	Cowardin:			
Surface water witin the wetlar			J	,	cowardin.			
HYDROLOGY								
Wetland Hydrology Indicators:				Secondary Indica	store (minimum of tu	vo required)		
		that annly)		Secondary Indicators (minimum of two required) Surface Soil Cracks (B6)				
Primary Indicators (minimum of o		,			, ,	(D0)		
Surface Water (A1)		Fauna (B13)	10		getated Concave Su	ırrace (B8)		
High Water Table (A2)		eposits (B15) (LRR	•	Drainage Pa				
Saturation (A3)		en Sulfide Odor (C	ong Living Roots (C3)	Moss Trim L	, ,			
Water Marks (B1) Sediment Deposits (B2)		ce of Reduced Iron		Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8)				
Sediment Deposits (B2) Drift Deposits (B3)								
Algal Mat or Crust (B4)		uck Surface (C7)	ion in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)			jery (Ca)		
Iron Deposits (B5)	_	Explain in Remarks	<u> </u>					
Inundation Visible on Aerial	_ `	Explain in Remarks	,		, ,			
× Water-Stained Leaves (B9)	inagery (br)			X FAC-Neutral Test (D5)Sphagnum moss (D8) (LRR T, U)				
Field Observations:				Ophiagham	1000 (20) (21117 1, 0	.,		
	/es Nox De	enth (inches): N/A						
Saturation Present?	/es Nox De /es No _x De	opth (inches): N/A	Wotland	Hydrology Preser	at? Voc X	No		
(includes capillary fringe)					it: res	···		
Describe Recorded Data (stream	n gauge, monitoring well,	aerial photos, prev	ious inspections), if av	ailable:				
Remarks:								
-Western part of wetland mov	ed - Surface water fron	n wetlands drains	to RD-SS					
<u> </u>						+		

	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft)	% Cover Species? Status	Number of Dominant Species
1. <u>N/A</u>		That Are OBL, FACW, or FAC:1 (A)
2		Total Number of Dominant
3		Species Across All Strata: 1 (B)
4		(2)
		Percent of Dominant Species
5		That Are OBL, FACW, or FAC:(A/B)
6		Prevalence Index worksheet:
	0 = Total Cover	
50% of total cover: 0	20% of total cover: 0	Total % Cover of: Multiply by:
Sapling Stratum (Plot size: 30 ft)		OBL species80 x 1 =80
1. <u>N/A</u>		FACW species 10 x 2 = 20
		FAC species 10 x 3 = 30
2		FACU species0 x 4 =0
3		UPL species0 x 5 =0
4		Column Totals: 100 (A) 130 (B)
5		Column Totals(A)(B)
6		Prevalence Index = B/A =1.30
	0 = Total Cover	Hydrophytic Vegetation Indicators:
50% of total cover: 0	20% of total cover:0	x 1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft)		x 2 - Dominance Test is >50%
1. <u>N/A</u>		$\frac{x}{3}$ 3 - Prevalence Index is $\le 3.0^{1}$
2		1
		Problematic Hydrophytic Vegetation¹ (Explain)
3		
4		Indicators of hydric soil and wetland hydrology must
5		be present, unless disturbed or problematic.
6		Definitions of Five Vegetation Strata:
	0 = Total Cover	
50% of total cover:	20% of total cover: 0	Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
	20 % of total cover:	(7.6 cm) or larger in diameter at breast height (DBH).
Herb Stratum (Plot size: 5 ft)		(**************************************
	80 Yes OBL	Sapling – Woody plants, excluding woody vines,
2. Juncus tenuis, Lesser Poverty Rush	10NoFAC	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
3. Carex crinita, Fringed Sedge	10NoFACW_	than 3 iii. (7.6 cm) DBH.
4		Shrub – Woody plants, excluding woody vines,
5		approximately 3 to 20 ft (1 to 6 m) in height.
		Harb All barbassays (non woods) plants including
6		Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
		plants, except woody vines, less than approximately
8		3 ft (1 m) in height.
9		Manda de de la constante de la
10		Woody vine – All woody vines, regardless of height.
11.		
	100 = Total Cover	
500, 51, 1		
	20% of total cover:20	
Woody Vine Stratum (Plot size: 30 ft)		
1. <u>N/A</u>		
2		
3.		
4		
5		Hydrophytic
	0 = Total Cover	Vegetation Ves X No.
50% of total cover: 0	20% of total cover:0	Present? Yesx No
Remarks: (If observed, list morphological adaptations belo	W).	I.
, -,		

Sampling Point: RD W 004

SolL Sampling Point: RD_W_004

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Matrix		12	Touting Bases					
(inches)	Color (moist)	<u>%</u>	Color (moist)		_Type'	Loc ²	Texture	Remarks	
0-10	10YR 4/1	95% 5Y	R 4/6	5%			Silty clay		
¹ Type: C=0	Concentration, D=Dep	letion, RM=Re	educed Matrix, M	S=Masked	Sand Gra	ains.	² Location: PL	=Pore Lining, M=Matrix.	
Hydric Soil	Indicators: (Applic	able to all LR	Rs, unless othe	rwise note	ed.)		Indicators for	Problematic Hydric Sc	oils³:
Histoso	l (A1)		Polyvalue B	elow Surfa	ce (S8) (L	RR S, T, U) 1 cm Mucl	k (A9) (LRR O)	
Histic E	pipedon (A2)		Thin Dark S					k (A10) (LRR S)	
_	listic (A3)		Loamy Mucl	-		O)		Vertic (F18) (outside ML	
, 	en Sulfide (A4)		Loamy Gley	•	F2)			Floodplain Soils (F19) (L	
_	d Layers (A5) Bodies (A6) (LRR P	T II)	X Depleted Ma Redox Dark		-C)		Anomalou (MLRA	is Bright Loamy Soils (F2	20)
_ ~	ucky Mineral (A7) (LR		Redox Dark Depleted Da	,	,		,	nt Material (TF2)	
_	resence (A8) (LRR U		Redox Depr					low Dark Surface (TF12)	ı
ı —	uck (A9) (LRR P, T)	,	Marl (F10) (I	,	• ,			plain in Remarks)	
I —	d Below Dark Surfac	e (A11)	Depleted Oc	•	(MLRA 1	51)		,	
Thick D	ark Surface (A12)		Iron-Mangar	nese Mass	es (F12) (LRR O, P,	T) ³ Indicato	rs of hydrophytic vegetat	tion and
ı —	Prairie Redox (A16) (F	, ,	Umbric Surfa	` ' '	,	, U)		d hydrology must be pres	
	Mucky Mineral (S1) (I	RR O, S)	Delta Ochric				unless	disturbed or problematic	: .
	Gleyed Matrix (S4)		Reduced Ve				0.63		
ı —	Redox (S5)		Piedmont FI				9A) A 149A, 153C, 15	(3D)	
I — · ·	d Matrix (S6) urface (S7) (LRR P, \$. T II)	Anomalous	Brigiit Loai	ily Solis (-20) (WLK)	A 149A, 155C, 15	130)	
	Layer (if observed):								
l	ard packed clay								
	nches): 10		_				Hydric Soil Pre	esent? Yesx	No
Remarks:			_				.,,		
	disturbed clay restri	ctive laver nr	evented evalua	tion of a f	full soil pr	ofile (20 ir	nches)		
Train a parent	anotan boa onay room	осто тауст р.			а оо р.	(20			

Date: 5/18/21

Feature Name: RD_W_004



Photograph Number 1
Photograph Direction West

Comments:



Photograph Number 2

Photograph Direction East

Comments:



Photograph Number 3
Photograph Direction North

Comments:



Photograph Number 4
Photograph Direction South

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Dominion CVOW	(City/County: Virginia Beach			Sampling Date:	5/19/2021	
Applicant/Owner: Dominion						Sampling Point: R	<u> </u>
Investigator(s): R. Delahunty	,	Section, Township, Range:					
Landform (hillslope, terrace, etc.): Fla							(%): 0
Subregion (LRR or MLRA): MLRA 153							
							II. <u>VVG364</u>
Soil Map Unit Name: 38 - Tomotley loam					NWI classifi		
Are climatic / hydrologic conditions or							
Are Vegetation, Soil,	or Hydrology	_ significantly	disturbed?	Are "Norma	Il Circumstances"	present? Yes <u>x</u>	No
Are Vegetation, Soil,	or Hydrology	_ naturally pro	blematic?	(If needed,	explain any answe	ers in Remarks.)	
SUMMARY OF FINDINGS -	Attach site ma	p showing	sampling poi	nt locati	ons, transects	s, important fea	tures, etc.
Hydrophytic Vegetation Present?	Yesx		Is the Sam	pled Area			
Hydric Soil Present?	Yes x		within a W	etland?	Yes	Nox	
Wetland Hydrology Present?	Yesx	No					
Remarks:						Observed Classifi	cations:
Data point taken within an existin				nighly disti	irbed area	Cowardin:	
with rutting and mixed mesic wet	land and upland n	nicrotopograp	ohy.				
LIVERGLOCY							
HYDROLOGY							
Wetland Hydrology Indicators:						ators (minimum of tv	o required)
Primary Indicators (minimum of one	is required; check a	all that apply)			Surface Soil		
Surface Water (A1)	Aqua	tic Fauna (B13	3)		Sparsely Ve	getated Concave Su	ırface (B8)
High Water Table (A2)	Marl	Deposits (B15)) (LRR U)		Drainage Pa	atterns (B10)	
Saturation (A3)	Hydro	ogen Sulfide O	dor (C1)		Moss Trim L	ines (B16)	
Water Marks (B1)	Oxidi	zed Rhizosphe	eres along Living F	Roots (C3)		Water Table (C2)	
Sediment Deposits (B2)	Prese	ence of Reduce	ed Iron (C4)		Crayfish Bu	rrows (C8)	
Drift Deposits (B3)	Rece	nt Iron Reduct	ion in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9			gery (C9)	
Algal Mat or Crust (B4)	Thin	Muck Surface				Position (D2)	
Iron Deposits (B5)	Other	(Explain in Re	Remarks) Shallow Aquitard (D3)				
Inundation Visible on Aerial Ima	gery (B7)				X FAC-Neutra	, ,	
_x Water-Stained Leaves (B9)					Sphagnum r	moss (D8) (LRR T, l	J)
Field Observations:							
	No _x [
Water Table Present? Yes	No _x [Depth (inches):	: <u>N/A</u>				
	No _x_ [Depth (inches):	: <u>N/A</u>	Wetland	Hydrology Prese	nt? Yesx	No
(includes capillary fringe) Describe Recorded Data (stream ga	uge, monitoring we	II. aerial photo	s. previous inspec	tions), if av	ailable:		
		.,	-, ,	,,			
Remarks:							
PEM							
Ĭ							1

	Absolute Do			Dominance Test	t worksheet:			
Tree Stratum (Plot size: 30 ft) 1. N/A	% Cover Sp			Number of Domir That Are OBL, F			1	(A)
2				Total Number of Species Across A			1	(B)
5				Percent of Domir That Are OBL, FA		100	0.0%	(A/B)
6				Prevalence Inde	x worksheet:	•		
	<u> </u>				er of:		lv hv	
50% of total cover: 0	20% of tota	al cover: _	0	OBL species				_
Sapling Stratum (Plot size: 30 ft)				FACW species _				-
1. <u>N/A</u>				1				_
2				FAC species _				_
3				FACU species _				
4				UPL species _				
5				Column Totals:	80 ((A)	100	_ (B)
6.				Prevalence	Index = B/A	=1	.25	_
	= To			Hydrophytic Ve	getation Indic	cators:		
50% of total cover:0	20% of tota	al cover: _	0	x 1 - Rapid Te	st for Hydroph	ytic Vege	tation	
Shrub Stratum (Plot size: 30 ft)				x 2 - Dominan	ce Test is >50	1%		
1. <u>N/A</u>				X 3 - Prevalence	ce Index is ≤3.	.0¹		
2				Problematic	Hydrophytic V	/eaetation	1 (Explain	n)
3					,	-9	(=-4-1-	.,
4				Indicators of hyd	tric soil and w	etland bye	trology n	nuet
5				be present, unles				iusi
6.				Definitions of Fi	ve Vegetation	n Strata:		
	0 = To				_			
50% of total cover:0				Tree – Woody pla approximately 20		-	-	in
Herb Stratum (Plot size: 5 ft)	20 % 01 tota			(7.6 cm) or larger				
	60	Vac	OBL					
Carex vulpinoidea, Common Fox Sedge				Sapling – Woody approximately 20				
				than 3 in. (7.6 cm			,	
3. Carex crinita, Fringed Sedge				Shrub Woody	nlanta avaludi	ing woods	inco	
4. 5.				Shrub – Woody approximately 3 to				
6				Herb - All herba	ceous (non-wo	oody) plan	its, includ	ding
7				herbaceous vines plants, except wo				
9.				3 ft (1 m) in heigh				
10				Woody vine – Al	ll woody vines	, regardle	ss of hei	ght.
11.								
	80 = To	otal Cove						
50% of total cover: 40								
Woody Vine Stratum (Plot size: 30 ft)	20 % 01 1010							
1. N/A								
2								
3								
4								
5				Hydrophytic				
	= To			Vegetation Present?	Yes_x	No		
50% of total cover: 0		al cover: _	0	. 10301111				
Remarks: (If observed, list morphological adaptations belo	w).							
i .								

SOIL Sampling Point: RD_W_005PEM

Depth	cription: (Describe) Matrix			x Features				•
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-20	10YR 5/1	90%	10YR 5/6	10%	<u>C</u>	M	Sandy clay	
	Concentration, D=Dep					ains.		_=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Application	able to all L	.RRs, unless othe	rwise note	d.)		Indicators for	r Problematic Hydric Soils ³ :
Histoso			Polyvalue Be				-	k (A9) (LRR O)
	pipedon (A2)		Thin Dark Su					ck (A10) (LRR S)
	listic (A3) en Sulfide (A4)		Loamy Muck Loamy Gleye	-		(0)		Vertic (F18) (outside MLRA 150A,B) Floodplain Soils (F19) (LRR P, S, T)
	d Layers (A5)		× Depleted Ma	,	2)			us Bright Loamy Soils (F20)
	Bodies (A6) (LRR P	T, U)	Redox Dark		6)		(MLRA	
5 cm M	ucky Mineral (A7) (LF	RR P, T, U)	Depleted Da	rk Surface	(F7)		Red Pare	nt Material (TF2)
	resence (A8) (LRR U)	Redox Depre	essions (F8	3)			llow Dark Surface (TF12)
	uck (A9) (LRR P, T)	(***)	Marl (F10) (L	•			Other (Ex	plain in Remarks)
	ed Below Dark Surface ark Surface (A12)	e (A11)	Depleted Oc Iron-Mangan	. ,		•	T) ³ Indicate	ors of hydrophytic vegetation and
	Prairie Redox (A12)	ILRA 150A			, , ,	, ,	,	id hydrology must be present,
	Mucky Mineral (S1) (L		Delta Ochric	, ,	,	, -,		disturbed or problematic.
	Gleyed Matrix (S4)		Reduced Ve		-	0A, 150B)		·
	Redox (S5)		Piedmont Flo					
	d Matrix (S6)		Anomalous F	Bright Loan	ny Soils (F20) (MLR	A 149A, 153C, 15	53D)
	urface (S7) (LRR P, S							
	Layer (if observed):							
Type: N	nches): N/A						Hudria Cail Dr	esent? Yes <u>x</u> No
	iches). NA						Hydric Soil Pro	esent? Yes No
Remarks:								

Date: 5/19/21

Feature Name: RD_W_005 PEM



Photograph Number ____1

Photograph Direction West

Comments:



Photograph Number 2
Photograph Direction South

Comments:



Photograph Number 3

Photograph Direction East

Comments:



Photograph Number 4
Photograph Direction North

Photograph Log

Date:	Feature Name: RD_W_005 PEM
Photograph Number5	Photograph Number <u>6</u>
Photograph Direction	Photograph Direction
Comments: View of soil core	Comments:
Photograph Number7	Photograph Number <u>8</u>
Photograph Direction	Photograph Direction
Comments:	Comments:

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Dominion CVO	W				City/Co	unty: Virg	ginia Beach	/Virginia Beach	_ Sampling Date: _	5/19/2021
Applicant/Owner: Dominion							State: VA	_ Sampling Point: _	RD_W-005-PFO	
Investigator(s): R. Delahunty	,				Section, Township, Range:					
Landform (hillslope, terrace, e					Local relief (concave, convex, none): None Slope			e (%): 0		
Subregion (LRR or MLRA): N										
Soil Map Unit Name: 38 - Tomo								NWI classifi		
Are climatic / hydrologic cond										
										, No
Are Vegetation, Soil _										No
Are Vegetation, Soil _	, or H	ydrology	_	naturally pro	oblemati	ic?	(If needed	l, explain any answ	ers in Remarks.)	
SUMMARY OF FINDIN	GS - Att	ach sit	e m	ap showing	samp	oling po	int locat	tions, transect	s, important fe	atures, etc.
		.,								
Hydrophytic Vegetation Pres	sent?			_ No _ No		Is the Sa	mpled Area	a		
Hydric Soil Present?	2					within a \	Netland?	Yes	No	.
Wetland Hydrology Present	r ————————————————————————————————————	res_		No						
Data point was taken with	in the force	tod nor	tion	of PD W/ OOE	The DE	M chara	ctorictics o	AF PID IVI OOF	Observed Classi	
1 '					. IIIe P	IVI CIIdi d	cteristics c	עא וו	Cowardin:	
are similar to those depict	ed on data	iorm KD	_^\V3	•						
HYDROLOGY										
Wetland Hydrology Indica	tors:							Secondary Indic	ators (minimum of t	two required)
Primary Indicators (minimum		equired: o	check	(all that apply)				Surface Soi		
									egetated Concave S	Surface (B8)
Surface Water (A1) Aquatic Fauna (B1 High Water Table (A2) Marl Deposits (B1						11)		Drainage Pa		dirace (Bo)
High Water Table (A2) Man Deposits (B13 Hydrogen Sulfide (Case								× Moss Trim I		
× Water Marks (B1)							Poots (C3)	-	. ,	
Sediment Deposits (B2)				sence of Reduc		along Living Roots (C3) Dry-Season Water Table (C2) on (C4) Crayfish Burrows (C8)				
Drift Deposits (B3)	,					on in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)				
X Algal Mat or Crust (B4)				n Muck Surface				agery (CO)		
Iron Deposits (B5)				er (Explain in R)		Shallow Aqu		
Inundation Visible on A	erial Imagen		. • • • •	ior (Explain III)	CITICITIO	,		× FAC-Neutra		
× Water-Stained Leaves		, (3.)							moss (D8) (LRR T,	us
Field Observations:	(50)						Т	opilagilani		
Surface Water Present?	Yes	No	х	Depth (inches): N/A					
Water Table Present?				Depth (inches						
Saturation Present?				Depth (inches			Wetland	d Hydrology Prese	nt? Yes X	No
(includes capillary fringe)	103	140 _		Deptii (iliches). <u>,, .</u>		Wettank	a riyarology r rese	iit: 165	
Describe Recorded Data (st	ream gauge	, monitor	ing w	vell, aerial photo	os, previ	ious inspe	ections), if a	vailable:		
Remarks:										
Buttressed trunks were ob	served wit	hin the v	vetla	ınd.						
										1
II.										

_	Absolute Dominan		Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft)	% Cover Species	? Status	Number of Dominant Species
Acer rubrum, Red Maple	25Yes	<u>FAC</u>	That Are OBL, FACW, or FAC:4 (A)
2. Fraxinus pennsylvanica, Green Ash	25Yes	_FACW_	Total Number of Dominant
3			Species Across All Strata: 5 (B)
4			
			Percent of Dominant Species
5			That Are OBL, FACW, or FAC: 80.0% (A/B)
6			Prevalence Index worksheet:
	50 = Total Co		Total % Cover of: Multiply by:
50% of total cover: 25	20% of total cove	r: <u>10</u>	OBL species
Sapling Stratum (Plot size: 30 ft)			i e
1. Acer rubrum, Red Maple		FAC	FACW species30 x 2 =60
2			FAC species45 x 3 =135
3.			FACU species 0 x 4 = 0
4.			UPL species0 x 5 =0
			Column Totals:75 (A)195 (B)
5			
6			Prevalence Index = B/A =2.60
	= Total Co	over	Hydrophytic Vegetation Indicators:
50% of total cover:10	20% of total cove	r: <u>4</u>	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft)			x 2 - Dominance Test is >50%
1. <u>N/A</u>	5Yes		x 3 - Prevalence Index is ≤3.0¹
2			Problematic Hydrophytic Vegetation¹ (Explain)
3.			Problematic Hydrophytic Vegetation (Explain)
4			Indicators of hydric soil and wetland hydrology must
5			be present, unless disturbed or problematic.
6			Definitions of Five Vegetation Strata:
	5 = Total Co	ver	Tree – Woody plants, excluding woody vines,
50% of total cover: 2.5	20% of total cove	r:1	approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: 30 ft)			(7.6 cm) or larger in diameter at breast height (DBH).
1. Carex crinita, Fringed Sedge	5 Yes	FACW	Conline Mandy plants evaluating woody vines
			Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
2			than 3 in. (7.6 cm) DBH.
3			
4			Shrub – Woody plants, excluding woody vines,
5			approximately 3 to 20 ft (1 to 6 m) in height.
6			Herb – All herbaceous (non-woody) plants, including
7			herbaceous vines, regardless of size, and woody
8.	· -		plants, except woody vines, less than approximately 3 ft (1 m) in height.
0.			3 it (1 m) in neight.
g			Woody vine - All woody vines, regardless of height.
10			
11			
	5 = Total Co	over	
50% of total cover: <u>2.5</u>	20% of total cove	r: <u>1</u>	
Woody Vine Stratum (Plot size: 30 ft)			
1. N/A			
2.			
3			
4			
5			Hydrophytic
	0 = Total Co	ver	Vegetation
50% of total cover: 0			Present? Yes <u>x</u> No
Remarks: (If observed, list morphological adaptations belo			
Trainiants. (Il observed, list morphological adaptations belo	·· <i>j</i> .		

Sampling Point: RD_W_005-PFO

SOIL Sampling Point: RD_W_005-PFO

Depth	cription: (Describe Matrix	to the depti		x Feature:		or commi	Title absence of	muicators.)
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks
0-8	10YR 3/2	100%					Silty loam	
8-20	10YR 5/1	95% 1	0YR 3/6	5%	С	М	Clay	
		· —— -						
¹ Type: C=C	concentration, D=Dep	letion, RM=F	Reduced Matrix, MS	S=Masked	Sand Gr	ains.	² Location: PL	=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applic	able to all L	RRs, unless other	rwise not	ed.)		Indicators for	Problematic Hydric Soils ³ :
Histoso	l (A1)		Polyvalue Be	low Surfa	ce (S8) (L	RR S, T, L	J) 1 cm Mucl	k (A9) (LRR O)
	pipedon (A2)		Thin Dark Su					k (A10) (LRR S)
	listic (A3)		Loamy Muck	-		O)		Vertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4) d Layers (A5)		Loamy Gleye	,	F2)			Floodplain Soils (F19) (LRR P, S, T) is Bright Loamy Soils (F20)
	: Bodies (A6) (LRR P	, T, U)	Redox Dark		6)		(MLRA	
	ucky Mineral (A7) (Li		Depleted Dai	,	,		•	nt Material (TF2)
Muck P	resence (A8) (LRR U)	Redox Depre	essions (F	8)		Very Shall	low Dark Surface (TF12)
	uck (A9) (LRR P, T)		Marl (F10) (L	,			Other (Exp	plain in Remarks)
	d Below Dark Surfac	e (A11)	Depleted Ocl	, ,	•		T) 31	
_	ark Surface (A12) Prairie Redox (A16) (I	/II RΔ 150Δ)	Iron-Mangan Umbric Surfa				•	rs of hydrophytic vegetation and dhydrology must be present,
	Mucky Mineral (S1) (I		Delta Ochric	` ,	,	, 0,		disturbed or problematic.
	Gleyed Matrix (S4)	, ,	Reduced Ver		-	0A, 150B)		·
	Redox (S5)		Piedmont Flo					
	d Matrix (S6)		Anomalous E	Bright Loar	my Soils (F20) (MLR	A 149A, 153C, 15	53D)
	urface (S7) (LRR P, S Layer (if observed):							
Type: No								
	nches): N/A						Hydric Soil Pre	esent? Yes <u>x</u> No
	iciles). <u>14/71</u>						nyunc 3011 Fie	esent? Yes No
Remarks:								

Date: 5/19/21

Feature Name: RD_W_005-PFO



Photograph Number 1
Photograph Direction South

Comments:



Photograph Number 2
Photograph Direction East

Comments:



Photograph Number 3
Photograph Direction West

Comments:



Photograph Number 4
Photograph Direction North

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Dominion CVOW	City/County: Virginia B	Beach/Virginia Beach	Sampling Date: _	5/19/2021		
Applicant/Owner: Dominion		State: <u>VA</u>	Sampling Point: R	D_W-005_UP		
Investigator(s): R. Delahunty	Section, Township, Ra	inge:				
Landform (hillslope, terrace, etc.): Ridge				(%): 1		
Subregion (LRR or MLRA): MLRA 153B of LRR T Lat:						
Soil Map Unit Name: 38 - Tomotley loam		NWI classific		III. <u>17 000 1</u>		
Are climatic / hydrologic conditions on the site typical for this time						
Are Vegetation, Soil, or Hydrology signific				No		
Are Vegetation, Soil, or Hydrology natural	y problematic? (If ne	eeded, explain any answe	rs in Remarks.)			
SUMMARY OF FINDINGS - Attach site map show	ing sampling point l	ocations, transects	, important fea	atures, etc.		
Hydrophytic Vegetation Present? Yes No X		l Area				
Hydric Soil Present? Yes Nox Wetland Hydrology Present? Yes Nox		nd? Yes	Nox			
Remarks:			01	•		
High spot within wetland characterized as an upland forest.			Observed Classif			
This spot within we dand characterized as an apiana forest.			Cowardin:			
HYDROLOGY						
		Connedent Indian	t (i-i of t			
Wetland Hydrology Indicators:	m h A		tors (minimum of to	vo requirea)		
Primary Indicators (minimum of one is required; check all that ap	. ,,	Surface Soil	` '	(D0)		
Surface Water (A1) Aquatic Fauna		getated Concave S	urface (B8)			
	(B15) (LRR U)	Drainage Pat				
Saturation (A3) Hydrogen Sulf Water Marks (B1) Oxidized Rhiz	ospheres along Living Roots	Moss Trim Li	, ,			
Sediment Deposits (B2) — Presence of R						
	eduction in Tilled Soils (C6)			gery (C9)		
Algal Mat or Crust (B4) Thin Muck Sui	, ,	Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)				
Iron Deposits (B5) Other (Explain	, ,	Shallow Aqui				
Inundation Visible on Aerial Imagery (B7)	iii Nomarko)	FAC-Neutral				
Water-Stained Leaves (B9)			noss (D8) (LRR T,	u) I		
Field Observations:			1000 (20) (21111 1)	-		
Surface Water Present? Yes No x Depth (inc	ches): N/A					
Water Table Present? Yes No _x Depth (in	, 					
Saturation Present? Yes No _x Depth (inc	ches): N/A We	etland Hydrology Presen	t? Yes	No ×		
(includes capillary fringe)						
Describe Recorded Data (stream gauge, monitoring well, aerial	photos, previous inspections	s), if available:				
Barrada						
Remarks:						
				1		

Sampline	a Point	RD	\٨/	005	111
Sampilli	a Politi.	Γ	vv	003	Οľ

T (Di-t 20 ft	Absolute			Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft)		Species?		Number of Dominant Species
Pinus taeda, Loblolly Pine	30	<u>Yes</u>	<u>FAC</u>	That Are OBL, FACW, or FAC:3 (A)
2				Total Number of Dominant
3				Species Across All Strata: 5 (B)
				Operios / Mi Oss / Mi Ostata.
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:60.0% (A/B)
6				
	30	= Total Cov	er er	Prevalence Index worksheet:
50% of total cover: 15	20% of	total cover	. 6	Total % Cover of: Multiply by:
Sapling Stratum (Plot size: 30 ft)	207001	10101 00101		OBL species0 x 1 =0
				FACW species0 x 2 =0
Liquidambar styraciflua, Sweet-Gum	40	<u>Yes</u>	<u>FAC</u>	FAC species x 3 =25
2				
3				FACU species 20 x 4 = 80
4.				UPL species0 x 5 =0
				Column Totals: <u>95</u> (A) <u>305</u> (B)
5				
6				Prevalence Index = B/A =3.21
	40	= Total Cov	er er	Hydrophytic Vegetation Indicators:
50% of total cover: 20	20% of	total cover	: 8	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft)				I —
				X 2 - Dominance Test is >50%
1. <u>N/A</u>				3 - Prevalence Index is ≤3.0¹
2				Problematic Hydrophytic Vegetation ¹ (Explain)
3				
4				Indicators of hydric call and wattend hydrology must
5.				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
6				Definitions of Five Vegetation Strata:
	0	= Total Cov	er	Tree – Woody plants, excluding woody vines,
50% of total cover:0	20% of	total cover	:0	approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: 30 ft)				(7.6 cm) or larger in diameter at breast height (DBH).
'				1
1 Lonicera ianonica Jananese Honeysuckle	10	Vec	FACII	On the North Advantage of the Control of the Contro
1. Lonicera japonica, Japanese Honeysuckle				Sapling – Woody plants, excluding woody vines,
2. Parthenocissus quinquefolia, Virginia-Creeper	10	Yes	FACU	approximately 20 ft (6 m) or more in height and less
	10	Yes	FACU	
Parthenocissus quinquefolia, Virginia-Creeper Morella cerifera, Southern Bayberry	<u>10</u> <u>5</u>	Yes Yes	FACU FAC	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines,
Parthenocissus quinquefolia, Virginia-Creeper Morella cerifera, Southern Bayberry 4.	10 5	Yes Yes	FACU FAC	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
 Parthenocissus quinquefolia, Virginia-Creeper Morella cerifera, Southern Bayberry 		Yes Yes	FACU FAC	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.
Parthenocissus quinquefolia, Virginia-Creeper Morella cerifera, Southern Bayberry		Yes Yes	FACU FAC	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
 Parthenocissus quinquefolia, Virginia-Creeper Morella cerifera, Southern Bayberry 		Yes Yes	FACU FAC	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
Parthenocissus quinquefolia, Virginia-Creeper Morella cerifera, Southern Bayberry		Yes Yes	FACU FAC	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
2. Parthenocissus quinquefolia, Virginia-Creeper 3. Morella cerifera, Southern Bayberry 4. 5. 6. 7. 8.		Yes Yes	FACU FAC	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.
 Parthenocissus quinquefolia, Virginia-Creeper Morella cerifera, Southern Bayberry 		Yes Yes	FACU FAC	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
2. Parthenocissus quinquefolia, Virginia-Creeper 3. Morella cerifera, Southern Bayberry 4		Yes Yes	FACU FAC	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. Parthenocissus quinquefolia, Virginia-Creeper 3. Morella cerifera, Southern Bayberry 4	5	Yes Yes	FACU	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. Parthenocissus quinquefolia, Virginia-Creeper 3. Morella cerifera, Southern Bayberry 4	5	Yes Yes	FACU	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. Parthenocissus quinquefolia, Virginia-Creeper 3. Morella cerifera, Southern Bayberry 4	10 5	Yes Yes	FACU FAC	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. Parthenocissus quinquefolia, Virginia-Creeper 3. Morella cerifera, Southern Bayberry 4. 5	10 5	Yes Yes	FACU FAC	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. Parthenocissus quinquefolia, Virginia-Creeper 3. Morella cerifera, Southern Bayberry 4	10 5	Yes Yes	FACU FAC	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. Parthenocissus quinquefolia, Virginia-Creeper 3. Morella cerifera, Southern Bayberry 4		Yes Yes Total Covertotal cover	FACU FAC	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. Parthenocissus quinquefolia, Virginia-Creeper 3. Morella cerifera, Southern Bayberry 4		Yes Yes Total Cover	FACU FAC	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. Parthenocissus quinquefolia, Virginia-Creeper 3. Morella cerifera, Southern Bayberry 4		Yes Yes Total Cover	FACU FAC	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. Parthenocissus quinquefolia, Virginia-Creeper 3. Morella cerifera, Southern Bayberry 4		Yes Yes Total Covertotal cover	FACU FAC	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. Parthenocissus quinquefolia, Virginia-Creeper 3. Morella cerifera, Southern Bayberry 4		Yes Yes Total Covertotal cover	FACU FAC	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. Parthenocissus quinquefolia, Virginia-Creeper 3. Morella cerifera, Southern Bayberry 4		Yes Yes Total Cover total cover	FACU FAC FAC FAC FAC FAC FAC FAC	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. Parthenocissus quinquefolia, Virginia-Creeper 3. Morella cerifera, Southern Bayberry 4		Yes Yes Total Cover Total cover	FACU FAC FAC FAC FAC FAC FAC FAC	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. Parthenocissus quinquefolia, Virginia-Creeper 3. Morella cerifera, Southern Bayberry 4		Yes Yes Total Cover total cover	FACU FAC FAC FAC FAC FAC FAC FAC	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. Parthenocissus quinquefolia, Virginia-Creeper 3. Morella cerifera, Southern Bayberry 4		Yes Yes Total Cover Total cover	FACU FAC FAC FAC FAC FAC FAC FAC	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. Parthenocissus quinquefolia, Virginia-Creeper 3. Morella cerifera, Southern Bayberry 4		Yes Yes Total Cover Total cover	FACU FAC FAC FAC FAC FAC FAC FAC	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. Parthenocissus quinquefolia, Virginia-Creeper 3. Morella cerifera, Southern Bayberry 4		Yes Yes Total Cover Total cover	FACU FAC FAC FAC FAC FAC FAC FAC	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

SOIL Sampling Point: RD_W_005_UP

Profile Des	cription: (Describe	to the depth n	eeded to docu	ment the i	ndicator	or confirm	the absence of	indicators.)
Depth	Matrix			ox Features			- .	
(inches)	Color (moist)		Color (moist)	%	Type'	Loc ²	<u>Texture</u>	Remarks
0-20	10YR 5/2	50%						
	10YR 5/6	50%						
		- — —						
Type: C=C	oncentration, D=Dep	oletion, RM=Re	duced Matrix, M	S=Masked	Sand Gr	ains.	² Location: Pl	L=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applic	able to all LRF	Rs, unless othe	rwise note	ed.)			r Problematic Hydric Soils ³ :
Histoso	I (A1)	_	Polyvalue B	elow Surfac	ce (S8) (L	.RR S, T, U)	1 cm Mud	ck (A9) (LRR O)
Histic E	pipedon (A2)	_	Thin Dark S	urface (S9)	(LRR S,	T, U)	2 cm Mud	ck (A10) (LRR S)
_	istic (A3)	_	Loamy Muck	-		(O)		Vertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)	-	Loamy Gley	•	F2)			t Floodplain Soils (F19) (LRR P, S, T)
ı —	d Layers (A5) : Bodies (A6) (LRR P	-	Depleted Ma	, ,	6)			us Bright Loamy Soils (F20)
I —	ucky Mineral (A7) (LI	-	Redox Dark Depleted Da	,	,		(MLRA Red Pare	ent Material (TF2)
_	resence (A8) (LRR L		Redox Depr					llow Dark Surface (TF12)
ı —	uck (A9) (LRR P, T)	-	Marl (F10) (I		,,			(plain in Remarks)
_	d Below Dark Surfac	e (A11) _	Depleted Oc	•	MLRA 1	51)		,
Thick D	ark Surface (A12)	_	Iron-Mangar	nese Masse	es (F12) (LRR O, P, 1	Γ) ³ Indicato	ors of hydrophytic vegetation and
ı —	Prairie Redox (A16) (I		Umbric Surfa	. , ,	,	', U)		nd hydrology must be present,
	Mucky Mineral (S1) (LRR O, S) _	Delta Ochric		-		unless	disturbed or problematic.
	Gleyed Matrix (S4)	-	Reduced Ve					
ı —	Redox (S5) d Matrix (S6)	-	Piedmont FI				3A) A 149A, 153C, 1:	53D)
I — · ·	urface (S7) (LRR P, \$	5 T. U)	Anomalous	Bright Loan	ily Solis (F20) (WILKA	1 145A, 155C, 1.	330)
	Layer (if observed)							
Туре:	, (,							
Depth (in	iches):		-				Hydric Soil Pr	resent? YesNox
Remarks:			<u>-</u>				,	
ixomants.								

Date: 5/19/21

Feature Name: RD_W_005_UP





Photograph Direction _____

Comments: View of soil core

Photograph Direction South

Comments:





Photograph Direction North

Comments:

Photograph Direction West

Photograph Log

Date: 5/19/21	Feature Name: RD_W_005_UP
Photograph Direction East	Photograph Direction
Comments:	Comments:
Photograph Direction	Photograph Direction
Comments:	Comments:

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Dominion CVOW		City/0	County: Virginia Beac	h	Sampling Date:	5/19/2021	
Applicant/Owner: Dominion				State: VA			
Investigator(s): R. Delahunty		Secti	ion, Township, Range:				
Landform (hillslope, terrace, etc.): Flat						(%): 0	
Subregion (LRR or MLRA): MLRA 153B							
Soil Map Unit Name: 38 - Tomotley loam				NWI classifi			
Are climatic / hydrologic conditions on t							
Are Vegetation, Soil, or		-				No	
						NO	
Are Vegetation, Soil, or				ed, explain any answe	,		
SUMMARY OF FINDINGS – A	ttach site ma	ip showing san	npling point loca	itions, transects	s, important fea	tures, etc.	
Hydrophytic Vegetation Present?	Yes X	No					
Hydric Soil Present?		No	Is the Sampled Are				
Wetland Hydrology Present?	Yes x		within a Wetland?	Yes	Nox		
Remarks:					Observed Classific	cations:	
Data point taken within an existing	overhead utility	easement charac	terized as a highly di	sturbed area	Cowardin:		
with rutting and mixed mesic wetla	nd and upland n	nicrotopography.					
HYDROLOGY							
Wetland Hydrology Indicators:				Secondary Indic	ators (minimum of tw	o required)	
Primary Indicators (minimum of one is	required; check	all that apply)		Surface Soil Cracks (B6)			
Surface Water (A1) Aquatic Fauna (B13)				Sparsely Vegetated Concave Surface (B8)			
High Water Table (A2) Marl Deposits (B15) (LRR U) Drainage Patterns (B10)					, ,		
Saturation (A3) Hydrogen Sulfide Odor (C1) Moss Trim Lines (B16)							
Water Marks (B1)			along Living Roots (C3	B) Dry-Season	Water Table (C2)		
Sediment Deposits (B2)	Prese	ence of Reduced Iro	on (C4)	Crayfish Bu	rrows (C8)		
Drift Deposits (B3)	Rece	ent Iron Reduction ir	n Tilled Soils (C6)	Saturation V	/isible on Aerial Imag	gery (C9)	
Algal Mat or Crust (B4) Thin Muck Surface (C7) Geomorphic Position (D2)							
Iron Deposits (B5) Other (Explain in Remarks)			ks)	Shallow Aquitard (D3)			
Inundation Visible on Aerial Imag	ery (B7)			_x FAC-Neutra	l Test (D5)		
x Water-Stained Leaves (B9)				Sphagnum r	moss (D8) (LRR T, U	J)	
Field Observations:							
Surface Water Present? Yes _	Nox	Depth (inches): N/	<u>A</u>				
Water Table Present? Yes _	Nox	Depth (inches): N/	<u>A</u>				
Saturation Present? Yes _	Nox	Depth (inches): N/	A Wetlan	nd Hydrology Prese	nt? Yesx	No	
(includes capillary fringe) Describe Recorded Data (stream gau	ae. monitorina we	ell, aerial photos, pro	evious inspections), if	available:			
	, . ,	, , , , , , , , , , , ,	,				
Remarks:							
PEM							

<u>Tree Stratum</u> (Plot size: <u>30 ft</u>) 1. N/A	% Cover Species? Statu	Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
2		Total Number of Dominant
3		Species Across All Strata:1 (B)
4 5		Percent of Dominant Species That Are OBL, FACW, or FAC:100.0% (A/B)
6		Prevalence Index worksheet:
	0 = Total Cover	Total % Cover of: Multiply by:
	20% of total cover: 0_	OBL species x 1 = 60
Sapling Stratum (Plot size: 30 ft)		FACW species 20 x 2 = 40
1. <u>N/A</u>		FAC species x 3 = 0
2		FACU species
3		UPL species x 5 =0
4		
5		Column Totals:80(A)100(B)
6		Prevalence Index = B/A =1.25
	0 = Total Cover	Hydrophytic Vegetation Indicators:
50% of total cover: 0	20% of total cover:0	
Shrub Stratum (Plot size: 30 ft)		x 2 - Dominance Test is >50%
1. <u>N/A</u>		
2		— Problematic Hydrophytic Vegetation¹ (Explain)
3		Troblematio Tryarophytic Togotation (Explain)
4.		— Indicators of hydric soil and wetland hydrology must
5		be present, unless disturbed or problematic.
		Definitions of Five Vegetation Strata:
	0 = Total Cover	_
50% of total cover: 0	20% of total cover: 0	Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: 5 ft)		(7.6 cm) or larger in diameter at breast height (DBH).
1. Juncus effusus, Lamp Rush	60YesOBL	Southern Mandy plants evaluating woody since
Carex vulpinoidea, Common Fox Sedge		Caping voody plants, excitaining woody vines,
Carex crinita, Fringed Sedge		than 3 in (7.6 cm) DBH
	-	Shrub – Woody plants, excluding woody vines,
4		approximately 3 to 20 ft (1 to 6 m) in height.
5		Herb – All herbaceous (non-woody) plants, including
6		herbaceous vines, regardless of size, and woody
7		plants, except woody vines, less than approximately
8		3 ft (1 m) in height.
9		Woody vine - All woody vines, regardless of height.
10		_
11		_
	80 = Total Cover	
	20% of total cover: <u>16</u>	_
Woody Vine Stratum (Plot size: 30 ft)		
1. <u>N/A</u>		_
2		_
3		_
4		_
5		Hydrophytic
	0 = Total Cover	Vegetation
50% of total cover: 0	20% of total cover: 0	Present?
Remarks: (If observed, list morphological adaptations belo	w).	1

SolL Sampling Point: RD_W_006

Depth	cription: (Describe t Matrix	to the depth		nent the II x Features		or confirm	the absence of	r indicators.)
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks
0-20	10YR 5/1	90% 10)YR 5/6	10%	С	М	Sandy clay	
¹ Type: C=C	concentration, D=Depl	etion RM=Re	educed Matrix MS	======================================	Sand Gra	ains	² Location: P	L=Pore Lining, M=Matrix.
	Indicators: (Applica							or Problematic Hydric Soils ³ :
Histoso	I (A1)		Polyvalue Be	low Surfac	ce (S8) (L	.RR S, T, U) 1 cm Mu	ck (A9) (LRR O)
Histic E	pipedon (A2)		Thin Dark Su	rface (S9)	(LRR S,	T, U)	2 cm Mu	ck (A10) (LRR S)
	listic (A3)		Loamy Muck			(O)		Vertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)		Loamy Gleye	,	F2)			t Floodplain Soils (F19) (LRR P, S, T)
_	d Layers (A5) : Bodies (A6) (LRR P,	T 11\	X Depleted Mail Redox Dark \$		6)			ous Bright Loamy Soils (F20) A 153B)
	ucky Mineral (A7) (LR		Depleted Dar	,	,		•	ent Material (TF2)
	resence (A8) (LRR U		Redox Depre		' '			allow Dark Surface (TF12)
	uck (A9) (LRR P, T)	,	Marl (F10) (L	,	,			xplain in Remarks)
Deplete	d Below Dark Surface	e (A11)	Depleted Oct	. , ,	•	•		
	ark Surface (A12)		Iron-Mangan		, , ,	, ,	,	ors of hydrophytic vegetation and
	Prairie Redox (A16) (N	,	Umbric Surfa	. , ,	,	, U)		nd hydrology must be present,
	Mucky Mineral (S1) (L Gleyed Matrix (S4)	.KK (), (S)	Delta Ochric Reduced Ver		-	0Δ 150R)	unies	s disturbed or problematic.
	Redox (S5)		Piedmont Flo				9A)	
	d Matrix (S6)						A 149A, 153C, 1	53D)
Dark St	ırface (S7) (LRR P, S	, T, U)						
Restrictive	Layer (if observed):							
Туре: <u>No</u>	one		_					
Depth (ir	nches): N/A		_				Hydric Soil P	resent? Yesx No
Remarks:							•	

Date: 5/19/21

Feature Name: RD_W_006



Photograph Number ____1

Photograph Direction West

Comments:



Photograph Number 2
Photograph Direction South

Comments:



Photograph Number 3

Photograph Direction East

Comments:



Photograph Number 4
Photograph Direction North

Photograph Log

Date:	Feature Name: RD_W_006
Photograph Number5	Photograph Number6
Photograph Direction	Photograph Direction
Comments: View of soil core	Comments:
Photograph Number7	Photograph Number8
Photograph Direction	Photograph Direction
Comments:	Comments:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Dominion CVOV	V			_ City/0	County: Virgi	nia Beach/	Virginia Beach	Sampling Date:	5/19/2021	
Applicant/Owner: Dominion							State: VA	Sampling Point: RD	<u> W006/W00</u> 7_UP	
Investigator(s): R. Delahunty				Secti	on, Township	, Range:				
Landform (hillslope, terrace, et									%): 0	
Subregion (LRR or MLRA): M										
Soil Map Unit Name: 38 - Tomo								cation: N/A		
Are climatic / hydrologic condi										
Are Vegetation, Soil _				-					No	
									_ NO	
Are Vegetation, Soil SUMMARY OF FINDING						,	explain any answe	,	tures, etc.	
Hydrophytic Vegetation Pres	ont?	Vos	_ Nox					<u> </u>		
Hydric Soil Present?	entr		_ Nox		Is the Sam					
Wetland Hydrology Present?	,	Yes		_	within a W	etland?	Yes	No×		
Remarks:								Observed Classific	ations:	
Data point taken adjacent	to a gravel	road charac	terized as ar	n early s	successional	ecotone.		Cowardin:		
HYDROLOGY										
							Cocondani India	atoro (minimum of tu	o roquirod\	
Wetland Hydrology Indicat			all that anni	\				Ators (minimum of two	<u>s requirea)</u>	
Primary Indicators (minimum	or one is re	•					Surface Soil		rface (DO)	
Surface Water (A1) High Water Table (A2)			ıatic Fauna (l rl Deposits (B	,	D III		Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10)			
Saturation (A3)			drogen Sulfide		-		Moss Trim Lines (B16)			
Water Marks (B1)			dized Rhizos			Roots (C3)				
Sediment Deposits (B2)		_	sence of Red			(/	Crayfish Bur			
Drift Deposits (B3)		Red	cent Iron Red	uction ir				turation Visible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)		Thi	n Muck Surfa	ce (C7)			Geomorphic	Position (D2)		
Iron Deposits (B5)		Oth	er (Explain in	Remar	ks)		Shallow Aqu	itard (D3)		
Inundation Visible on Ae		(B7)					FAC-Neutra	, ,		
Water-Stained Leaves (I	B9)						Sphagnum r	noss (D8) (LRR T, U)	
Field Observations:	V	No. V	Donath (in als	> N/	٨					
Surface Water Present?			Depth (inch							
Water Table Present? Saturation Present?	Yes	_ No	Depth (inch	es): <u>IV//</u>	Δ	Wetland	Hudrology Broom	nt? Yes I	No X	
(includes capillary fringe)	165	_ 140	Deptii (ilicii	es). <u>14//</u>		welland	nyurology Fresei	105	10	
Describe Recorded Data (str	eam gauge,	monitoring v	vell, aerial ph	otos, pre	evious inspec	tions), if ava	ailable:			
Remarks:										
Į.									il i	

Sampling	Point: RD	W006/W007	UP

Number of Dominant Species Number of Domi		Absolute Dominant		Dominance Test worksheet:
2 Total Number of Dominant Species Across All Strate: 2 (B)	,	% Cover Species?	Status	
Species Across All Strata: 2 (8)				That Are OBL, FACW, or FAC:1 (A)
Species Across All Stratate 2 (8)	2			Total Number of Dominant
That Are OBL, FACW, or FAC: S0.0% (A/B)	3			Species Across All Strata: 2 (B)
That Are OBL, FACW, or FAC: S0.0% (A/B)	4			Percent of Dominant Species
Solid Stratum Prevalence Index worksheet:				
Some of total cover				
Samula Stratum Piot size: 30 ft 1 1 1 2 4 4 4 4 4 4 4 4 4			ver	
Sabiling Stratum (Plot size: 30 ft 1. N/A	50% of total cover: 0			
1. N/A				1
2				
FACU species 70				FAC species x 3 = 30
Second S				FACU species x 4 =280
Column Totals: 100				UPL species0 x 5 =0
Prevalence Index = B/A = 3.50 Hydrophytic Vegetation Shrub Stratum (Plot size: 30 ft Shrub Stratum (Plot size: 30 ft Shrub Stratum (Plot size: 30 ft Shrub Stratum (Plot size: 30 ft Shrub Stratum (Plot size: 30 ft Shrub Stratum (Plot size: 30 ft Shrub Stratum (Plot size: 30 ft Shrub Stratum (Plot size: 30 ft Shrub Stratum (Plot size: 5 ft Shrub Stratum (Plot size: 5 ft Shrub Stratum (Plot size: 5 ft Shrub Stratum (Plot size: 5 ft Shrub Stratum (Plot size: 5 ft Shrub Stratum (Plot size: 5 ft Shrub Stratum (Plot size: 5 ft Shrub Stratum (Plot size: 5 ft Shrub Stratum (Plot size: 5 ft Shrub Stratum (Plot size: 5 ft Shrub Stratum (Plot size: 5 ft Shrub Sh				Column Totals:100 (A)350 (B)
D				
Shrub Stratum (Plot size: 30 ft 1. N/A 2. 2. 2. 2. 2. 3. 2. 2.	b			
Shrub Stratum (Plot size: 30 ft 1. N/A	500/ 5/ / /			Hydrophytic Vegetation Indicators:
1. N/A		20% of total cover	r:0	1 - Rapid Test for Hydrophytic Vegetation
2				2 - Dominance Test is >50%
3. 4. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5.				3 - Prevalence Index is ≤3.0¹
4	2			Problematic Hydrophytic Vegetation¹ (Explain)
be present, unless disturbed or problematic. 6	3			
be present, unless disturbed or problematic. 6.	4			¹ Indicators of hydric soil and wetland hydrology must
Definitions of Five Vegetation Strata: Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 1 in. (7.6 cm) plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 1 in. (7.6 cm) plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 1 in. (7.6 cm) plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 1 in. (7.6 cm) plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 1 in. (7.6 cm) plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 1 in. (7.6 cm) plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 1 in. (7.6 cm) plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 1 in. (7.6 cm) plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 1 in. (7.6 cm) plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 1 in. (7.6 cm) plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 1 in. (7.6 cm) plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 1 in. (7.6 cm) plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 1 in. (7.6 cm) plants, excludin	5			
Solition Solition				Definitions of Five Vegetation Strata:
Sow of total cover: 0 20% of total cover: 0 approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).		0 = Total Co	ver	Trace 18 (a adv planta pyalyding waadv wines
Herb Stratum (Plot size: 5 ft) 1. Lolium perenne, Perennial Rye Grass	50% of total cover: 0	20% of total cove	r: 0	
1. Lolium perenne, Perennial Rye Grass 65 Yes FACU 2. Ranunculus abortivus, Kidney-Leaf Buttercup 20 Yes FACW 3. Plantago lanceolata, English Plantain 5 No FACU 4. Rumex crispus, Curly Dock 5 No FAC 5. Thunbergia erecta, Bush Clockvine 5 No FAC 6.				
2. Ranunculus abortivus, Kidney-Leaf Buttercup 2.0 Yes FACW 3. Plantago lanceolata, English Plantain 5. No FACU 4. Rumex crispus, Curly Dock 5. Thunbergia erecta, Bush Clockvine 6. Thunbergia erecta, Bush Clockvine 7. Herb - All herbaceous (non-woody) plants, including herbaceous vines, less than approximately 3 ft (1 m) in height. 9. Herb - All woody vines, less than approximately 3 ft (1 m) in height. Woody Vine Stratum (Plot size: 30 ft) 1. N/A 2		65 Yes	FACU	Sanling - Woody plants, evaluding woody vines
3. Plantago lanceolata, English Plantain				
4. Rumex crispus, Curly Dock 5 No FAC Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. 5. Thunbergia erecta, Bush Clockvine 5 No 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. 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height. 10.				than 3 in. (7.6 cm) DBH.
5. Thunbergia erecta, Bush Clockvine				Shrub - Woody plants, evaluding woody vines
6				
7				
8				
9		-		
10			·	3 ft (1 m) in height.
10	9			Woody vine – All woody vines regardless of height
100	10			vicedy vine 7 in moody vines, regularess of freight.
Solid of total cover: 50 20% of total cover: 20	11			
Woody Vine Stratum (Plot size: 30 ft		100 = Total Co	ver	
1. N/A 2	50% of total cover:50	20% of total cove	r: <u>20</u>	
1. N/A 2	Woody Vine Stratum (Plot size: 30 ft)			
3				
3				
4				
5				
= Total Cover Vegetation Present? Yes No _x				
50% of total cover: 0 20% of total cover: 0 Present? Yes Nox	J			
50% of total cover: 20% of total cover:	500/ // /			
Remarks: (If observed, list morphological adaptations below).			r: <u> </u>	
	Remarks: (If observed, list morphological adaptations belo	W).		

cost praire (AS) 100% % Depicted Both Current (AS) Market (AS) Depicted Both Current (AS) Depicted Resolution (AS) Resolution	Depth	Matrix			x Features	1 1 - 2	T-10*****	D	
### Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ### Color Indicators: (Applicable to all LRRs, unless otherwise noted.) ### Histosol (A1)	inches)			Color (moist)	%Type	Loc			
dric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	0-8	1018 5/2	100%				Siity loam	to Salluy	
dric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)									
dric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)		·							
dric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)									
dric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)									
dric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)									
dric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)									
Histosol (A1)	ype: C=C	Concentration, D=Dep	pletion, RM=R	educed Matrix, M	S=Masked Sand	Grains.	² Location:	PL=Pore Lining, M=Matrix.	
Histic Epipedon (A2)	dric Soil	Indicators: (Applic	cable to all LF					for Problematic Hydric Soils ³	:
Black Histic (A3)	_	* *							
Hydrogen Sulfide (A4)	_							, , ,	4 5 0 A
Stratified Layers (A5)	_	` '				KK O)			
		, ,							, -,
Muck Presence (A8) (LRR U)	_				, ,		•	•	
1 cm Muck (A9) (LRR P, T)	_	•						` '	
Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Strictive Layer (if observed): Type: Gravel Depth (inches): 8 Depleted Ochric (F11) (MLRA 151) Iron-Manganese Masses (F12) (LRR O, P, T) Wetland hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Reduced Vertic (F13) (MLRA 151) Reduced Vertic (F18) (MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Hydric Soil Present? Yes No x	_	, , ,			` '			, ,	
Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) wetland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) unless disturbed or problematic. Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)	_			` '	,	151)	~ ~ ~ ~ ~	(Explain in Homailo)	
Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) unless disturbed or problematic. Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Strictive Layer (if observed): Type: Gravel Depth (inches): 8 Hydric Soil Present? Yes No x	_ Thick D	ark Surface (A12)		Iron-Mangan	ese Masses (F12) (LRR O, P,	T) ³ Indic	cators of hydrophytic vegetation	and
Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Strictive Layer (if observed): Type: Gravel Depth (inches): 8 Hydric Soil Present? Yes No x	_	, , ,							,
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D) Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D) Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D) Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D) Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D) Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D) Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D) Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D) Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D) Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D) Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D) Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D) Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D) Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D) Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D) Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D) Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D) Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D) Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D)	_		LRR O, S)			-	uni	ess disturbed or problematic.	
Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) strictive Layer (if observed): Type: Gravel Depth (inches): 8							9 A)		
strictive Layer (if observed): Type: Gravel Depth (inches): 8 Hydric Soil Present? Yes No x marks:				_			•	;, 153D)	
Type: Gravel Depth (inches): 8 marks: Hydric Soil Present? Yes No _x									
Depth (inches): 8 Hydric Soil Present? Yes No x marks:			:						
marks:		_		_				D	v
		nches): ŏ		_			Hydric Soil	Present? Yes No	
Strictive graver rayer preventing evaluation of full soil profile (20 inches).		gravel layer prover	ating ovaluati	an of full soil are	ofila (20 inchas)				
	strictive	graveriayer prever	itilig evaluati	on or run son pro	onie (20 menes).				

Date: 5/19/21

Feature Name: RD_W006/W007_UP





Photograph Direction _____

Comments: View of soil core



Comments:





Photograph Direction East

Comments:

Photograph Direction North

Photograph Log

Date: 5/19/21	Feature Name: RD_W006/W007_UP
Photograph Direction West	Photograph Direction
Comments:	Comments:
Photograph Direction	Photograph Direction
Comments:	Comments:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Dominion CVOW	City/County: Virginia Beach/Virginia Beach Sampling Date: 5/19/2021
Applicant/Owner: Dominion	State: VA Sampling Point: RD W 007
Investigator(s): R. Delahunty	Section, Township, Range:
	Local relief (concave, convex, none): Concave Slope (%): 2
	36.770116 Long: -76.061666 Datum: WGS84
Soil Map Unit Name: 38 - Tomotley loam	
Are climatic / hydrologic conditions on the site typical for this time of y	
	y disturbed? Are "Normal Circumstances" present? Yesx No
Are Vegetation, Soil, or Hydrology naturally p	roblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showin	g sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No No	IS the Sampled Area
Hydric Soil Present? Yes _ x _ No No Wetland Hydrology Present? Yes _ x _ No No	within a Wetland? Yesx No
Wetland Hydrology Present? Yesx No Remarks:	Ohaamad Classifiantians
This area was observed as an isolated depression, potentially co	Observed Classifications: aused by the construction of the gravel Cowardin:
access road through RD_W_006, sectioning off RD_W_007.	Cowardin.
HYDROLOGY	
	Consider Indicators (minimum of two required)
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	
Surface Water (A1) Aquatic Fauna (B High Water Table (A2) Marl Deposits (B1	
Saturation (A3) Hydrogen Sulfide	
	heres along Living Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2) Presence of Redu	
	ction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surfac	
Iron Deposits (B5) Other (Explain in	
Inundation Visible on Aerial Imagery (B7)	× FAC-Neutral Test (D5)
× Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes No _x Depth (inche	s): N/A
Water Table Present? Yes No _x Depth (inche	
Saturation Present? Yes No _x Depth (inche	s): N/A Wetland Hydrology Present? Yes x No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial pho	tos, previous inspections), if available:
Remarks:	I
Microtopography was observed within the depressional wetlar	10.
	1
	11

	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30 ft</u>)	% Cover	Species?	Status	Number of Dominant Species
1. Acer rubrum, Red Maple	10	Yes	<u>FAC</u>	That Are OBL, FACW, or FAC:6(A)
2				
				Total Number of Dominant Species Across All Strata: 6 (B)
3				Species Across All Strata: 6 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:100.0% (A/B)
6				
	10	= Total Cov	er er	Prevalence Index worksheet:
50% of total cover: 5	20% of	total cover	2	Total % Cover of: Multiply by:
Sapling Stratum (Plot size: 15 ft)				OBL species 5 x 1 = 5
Fraxinus pennsylvanica, Green Ash	5	Vac	EV C/V	FACW species15 x 2 =30
				FAC species15 x 3 =45
2				FACU species 0 x 4 = 0
3				
4				UPL species x 5 = 0
5				Column Totals:35
6				Prevalence Index = B/A =2.29
	5	= Total Cov	er er	Hydrophytic Vegetation Indicators:
50% of total cover: 2.5	20% of	total cover	: 1	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft)				
				X 2 - Dominance Test is >50%
1. <u>N/A</u>				X 3 - Prevalence Index is ≤3.01
2				Problematic Hydrophytic Vegetation¹ (Explain)
3				
4				¹ Indicators of hydric soil and wetland hydrology must
5				be present, unless disturbed or problematic.
6.				Definitions of Five Vegetation Strata:
•.		= Total Cov	/or	
500/ -51/ 1-1				Tree - Woody plants, excluding woody vines,
50% of total cover: 0	20% of	total cover	:	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)				(7.5 cm) or larger in diameter at breast height (BBH).
1. Fraxinus pennsylvanica, Green Ash				Sapling – Woody plants, excluding woody vines,
2. Acer rubrum, Red Maple	5	<u>Yes</u>	<u>FAC</u>	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
3. Juncus effusus, Lamp Rush	5	Yes	OBL_	than 5 iii. (7.0 cm) DBH.
4. Phragmites australis, Common Reed	5	Yes	<u>FACW</u>	Shrub - Woody plants, excluding woody vines,
5				approximately 3 to 20 ft (1 to 6 m) in height.
6.				Herb – All herbaceous (non-woody) plants, including
				herbaceous vines, regardless of size, and woody
7				plants, except woody vines, less than approximately
8				3 ft (1 m) in height.
9				Woody vine – All woody vines, regardless of height.
10				vvody vine – All woody vines, regardless of freight.
11				
		= Total Cov	/er	
500/ oftatal agyar: 10				
50% of total cover:10_	20% 01	total cover		
Woody Vine Stratum (Plot size: 30 ft)				
1. <u>N/A</u>				
2				
3				
4.				
5				l
·				Hydrophytic
		= Total Cov		Vegetation
50% of total cover: 0	20% of	total cover	:0	
Remarks: (If observed, list morphological adaptations below	w).			

Sampling Point: RD W 007

SolL Sampling Point: RD_W_007

Profile Des	cription: (Describe	to the depth	needed to docur	nent the i	ndicator	or confirm	the absence	of indicators.)
Depth	Matrix			x Features				
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-8	10YR 4/2	100%					Sandy clay loam	
8-20	10YR 5/1	70% 1	.0YR 4/6	30%	C	PL	Clay	
								_
	-							
¹ Type: C=C	Concentration, D=Dep	letion RM=F	Reduced Matrix Ms	S=Masked	Sand Gr	ains	² Location:	PL=Pore Lining, M=Matrix.
	Indicators: (Applic							for Problematic Hydric Soils ³ :
Histoso			Polyvalue Be			RR S. T. L		luck (A9) (LRR O)
I —	pipedon (A2)		Thin Dark Su				-	luck (A10) (LRR S)
Black H	listic (A3)		Loamy Muck					ed Vertic (F18) (outside MLRA 150A,B)
Hydrog	en Sulfide (A4)		Loamy Gleye	ed Matrix (I	F2)		Piedmo	ont Floodplain Soils (F19) (LRR P, S, T)
	d Layers (A5)		× Depleted Ma	, ,				lous Bright Loamy Soils (F20)
	Bodies (A6) (LRR P		Redox Dark	,	,		•	(A 153B)
I —	ucky Mineral (A7) (LF		Depleted Dai					arent Material (TF2)
ı —	resence (A8) (LRR U)	Redox Depre		3)			hallow Dark Surface (TF12)
_	uck (A9) (LRR P, T) ed Below Dark Surfac	o (A11)	Marl (F10) (L Depleted Oct	,	MIDA 1	54\	Other (Explain in Remarks)
I — ·	ark Surface (A12)	c (ATT)	Iron-Mangan	, ,	•	,	T) ³ Indica	ators of hydrophytic vegetation and
1 —	Prairie Redox (A16) (N	/ILRA 150A)			, , ,	, ,	•	and hydrology must be present,
ı —	Mucky Mineral (S1) (I		Delta Ochric	. , ,	,	, -,		ess disturbed or problematic.
Sandy	Gleyed Matrix (S4)		Reduced Ver	rtic (F18) (I	MLRA 15	0A, 150B)	1	
Sandy I	Redox (S5)		Piedmont Flo	oodplain S	oils (F19)	(MLRA 14	19A)	
	d Matrix (S6)		Anomalous E	Bright Loan	ny Soils (F20) (MLR	RA 149A, 153C,	153D)
	urface (S7) (LRR P, S						_	
1	Layer (if observed):							
Type: No								-
Depth (in	nches): <u>N/A</u>						Hydric Soil	Present? Yes <u>x</u> No
Remarks:								

Date: 5/19/21

Feature Name: RD_W_007



Photograph Number 1
Photograph Direction West

Comments:



Photograph Number 2
Photograph Direction South

Comments:



Photograph Number 3
Photograph Direction North

Comments:



Photograph Number 4
Photograph Direction East

Photograph Log

Date:	Feature Name: RD_W_007
Photograph Number5	Photograph Number <u>6</u>
Photograph Direction	Photograph Direction
Comments: View of soil core	Comments:
Photograph Number7	Photograph Number 8
Photograph Direction	Photograph Direction
Comments:	Comments:

5/19/21

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Dominion CVOW	V	City/Coun	ty: Virginia Beach/\	Virginia Beach	Sampling Date:	5/19/2021
Applicant/Owner: Dominion				State: VA	Sampling Point: RI	008 W_0
Investigator(s): R. Delahunty		Section, 1	Township, Range:			
Landform (hillslope, terrace, et						(%): 1
Subregion (LRR or MLRA): MI						
						II. <u>WG30</u> 4
Soil Map Unit Name: 38 - Tomot			v			
Are climatic / hydrologic condit		-				
Are Vegetation, Soil	, or Hydrology	significantly disturbed	? Are "Norma	l Circumstances" p	oresent? Yesx	No
Are Vegetation, Soil	, or Hydrology	_ naturally problematic?	(If needed,	explain any answe	rs in Remarks.)	
SUMMARY OF FINDING	S – Attach site ma	p showing sampli	ng point location	ons, transects	, important fea	tures, etc.
				-	· •	
Hydrophytic Vegetation Prese		13	the Sampled Area			
Hydric Soil Present?	Yesx	WI	thin a Wetland?	Yesx	No	
Wetland Hydrology Present?	Yesx	No				
Remarks:		hilib			Observed Classifi	cations:
Data point was taken within	n an existing overnead u	tility easement.			Cowardin:	
HYDROLOGY						
Wetland Hydrology Indicate	ors:			Secondary Indica	tors (minimum of tw	o required)
Primary Indicators (minimum	of one is required; check a	all that apply)		Surface Soil	Cracks (B6)	
Surface Water (A1)	Aqua	tic Fauna (B13)		Sparsely Ve	getated Concave Su	ırface (B8)
High Water Table (A2)		Deposits (B15) (LRR U)		Drainage Pa	tterns (B10)	
Saturation (A3)	Hydro	ogen Sulfide Odor (C1)		Moss Trim L	nes (B16)	
Water Marks (B1)	_	zed Rhizospheres along	,	Dry-Season	Water Table (C2)	
Sediment Deposits (B2)	Prese	ence of Reduced Iron (C	24)	Crayfish Bur	rows (C8)	
Drift Deposits (B3)	Rece	nt Iron Reduction in Tille	ed Soils (C6)	Saturation V	sible on Aerial Imag	jery (C9)
Algal Mat or Crust (B4)	Thin !	Muck Surface (C7)		X Geomorphic	Position (D2)	
Iron Deposits (B5)	Other	(Explain in Remarks)		Shallow Aqu	itard (D3)	
Inundation Visible on Aer	rial Imagery (B7)			_x FAC-Neutral	, ,	
Water-Stained Leaves (E	39)			Sphagnum n	noss (D8) (LRR T, L	J)
Field Observations:						
Surface Water Present?	Yes No _x [Depth (inches):				
Water Table Present?	Yes Nox [Depth (inches):				
Saturation Present?	Yes No _x [Wetland I	Hydrology Preser	it? Yesx	No
(includes capillary fringe) Describe Recorded Data (stre	eam gauge monitoring we	Il aerial photos previou	s inspections) if ava	ailable:		
Describe Necorded Bala (sin	Jam gaage, montoning we	ii, acriai priotos, previoc	is inspections), if ave	anabic.		
Remarks:						
An ephemeral stream was o	ohserved adjoining this w	vetland				
An epitemetal stream was t	bacived adjoining tina v	vetiana.				
Ť						1
II.						II.

50% of total cover: ___0 __ 20% of total cover: ___0

0 = Total Cover

Present?

/EGETATION (Five Strata) – Use scientific nar			la dia atau		npling Point:		
Tree Stratum (Plot size: 30 ft)	% Cover	Dominant Species?		Dominance Test worksheet: Number of Dominant Species			
1. <u>N/A</u>				That Are OBL, FACW, or FAC:	1	((A)
2				Total Number of Dominant			
3				Species Across All Strata:	1	((B)
4				Percent of Dominant Species			
5				That Are OBL, FACW, or FAC:	100.0	0%((A/B)
6				Prevalence Index worksheet:	•		
		= Total Cov		Total % Cover of:		/ by:	
50% of total cover: 0	20% of	total cover	0	OBL species50			
Sapling Stratum (Plot size: 30 ft)				FACW species 30			
1. N/A				FAC species0			
2				FACU species 0			
3				UPL species 0			
4				Column Totals: 80			(B)
5							` ′
6		Total Cov		Prevalence Index = B/A		38	
50% of total cover:0				Hydrophytic Vegetation India			
Shrub Stratum (Plot size: 30 ft)	20% 01	total cover		1 - Rapid Test for Hydroph		ation	
1. N/A				x 2 - Dominance Test is >50			
2				X 3 - Prevalence Index is ≤3		(- !	
3.				Problematic Hydrophytic \	regetation	(Explain))
4.				¹ Indicators of hydric soil and w	otland bydri	ology my	ıct
5.				be present, unless disturbed or			151
6.				Definitions of Five Vegetatio	n Strata:		
		= Total Cov		Tree – Woody plants, excludin	a woody vin	200	
50% of total cover:0	20% of	total cover	0	approximately 20 ft (6 m) or me			n.
Herb Stratum (Plot size: <u>5 ft</u>)				(7.6 cm) or larger in diameter a	it breast hei	ight (DBI	H).
1. Juncus effusus, Lamp Rush	50	<u>Yes</u>	OBL	Sapling - Woody plants, exclu	iding woody	y vines,	
2. Carex scoparia, Pointed Broom Sedge	10	No	FACW	approximately 20 ft (6 m) or mo	ore in heigh	t and les	iS
3. Carex vulpinoidea, Common Fox Sedge	10	No	FACW	than 3 in. (7.6 cm) DBH.			
4. <u>Carex crinita, Fringed Sedge</u> 5	10	<u>No</u>	<u>FACW</u>	Shrub – Woody plants, exclud approximately 3 to 20 ft (1 to 6			
6.				Herb - All herbaceous (non-we	oody) plants	s, includi	ng
7				herbaceous vines, regardless			
8.				plants, except woody vines, les 3 ft (1 m) in height.	ss than appi	roximate	ıy
9							
10				Woody vine – All woody vines	, regardiess	s of neigh	nt.
11							
	80 :	= Total Cov	er er				
50% of total cover: 40	20% of	total cover	16				
Woody Vine Stratum (Plot size: 30 ft)							
1. <u>N/A</u>							
2							
3							
4							
5				Hydrophytic			
		= Total Cov					

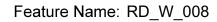
Remarks: (If observed, list morphological adaptations below).

Yes x No ___

SolL Sampling Point: RD_W_008

Profile Des	cription: (Describe	to the depth r	needed to docu	ment the ir	ndicator	or confirm	the absence	of indicators.)
Depth	Matrix			ox Features		12	T	D
(inches)	Color (moist)		Color (moist)		_Type¹	_Loc ²	<u>Texture</u>	Remarks
0-20	10YR 5/1	95% 10	YR 4/6	5%	C	M	Sandy clay	
						•		
	oncentration, D=Dep					ains.		PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applic	able to all LR	Rs, unless othe	rwise note	d.)		Indicators	for Problematic Hydric Soils ³ :
Histoso	I (A1)	-	Polyvalue Be	elow Surfac	e (S8) (L	.RR S, T, U) 1 cm M	luck (A9) (LRR O)
_	pipedon (A2)	-	Thin Dark S					luck (A10) (LRR S)
	istic (A3)	-	Loamy Muck			l O)		ed Vertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)	-	 Loamy Gley Depleted Ma 	•	-2)			ont Floodplain Soils (F19) (LRR P, S, T) lous Bright Loamy Soils (F20)
ı —	d Layers (A5) : Bodies (A6) (LRR F	-	Redox Dark	. ,	6)			RA 153B)
_ ~	ucky Mineral (A7) (LI		Depleted Da	,	,		•	arent Material (TF2)
_	resence (A8) (LRR L		Redox Depr					hallow Dark Surface (TF12)
ı —	uck (A9) (LRR P, T)		Marl (F10) (I		,			Explain in Remarks)
Deplete	d Below Dark Surfac	e (A11)	Depleted Oc	hric (F11) (MLRA 1	51)		
ı —	ark Surface (A12)	-	Iron-Mangar				•	ators of hydrophytic vegetation and
ı —	rairie Redox (A16) (I		Umbric Surfa	, ,	,	', U)		and hydrology must be present,
·	Mucky Mineral (S1) (LRRO,S)	Delta Ochric		-	OA 450D)	unle	ess disturbed or problematic.
· —	Gleyed Matrix (S4) Redox (S5)	-	Reduced Ve Piedmont Fl				0.6)	
ı —	d Matrix (S6)	-					A 149A, 153C,	153D)
I — · ·	ırface (S7) (LRR P, \$	s, T, U)		origine zouri	.,	. 20) (210		,
	Layer (if observed)							
Type: No	one		_					
Depth (in	iches): N/A						Hydric Soil	Present? Yes × No
Remarks:	-							

Date: 5/19/21







Photograph Direction East

Comments:

Photograph Direction North

Comments:





Photograph Direction South

Comments:

Photograph Direction West

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Dominion CVOW	City/County: Virgin	nia Beach	_ Sampling Date:5/19/202
Applicant/Owner: Dominion			Sampling Point: RD W 008 U
Investigator(s): R. Delahunty			
Landform (hillslope, terrace, etc.): Flat			
Subregion (LRR or MLRA): MLRA 153B of LRR T Lat:			
Soil Map Unit Name: 38 - Tomotley loam		NWI classifi	
Are climatic / hydrologic conditions on the site typical for this time			
Are Vegetation, Soil, or Hydrology signifi	cantly disturbed?	Are "Normal Circumstances"	present? Yes Nox
Are Vegetation, Soil, or Hydrology natura	ally problematic? (If needed, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS - Attach site map sho	wing sampling poi	nt locations, transect	s. important features, etc.
		,	, , , , , , , , , , , , , , , , , , , ,
Hydrophytic Vegetation Present? Yes No	IS LITE SAITI	pled Area	
Hydric Soil Present? Yesx No	within a We	etland? Yes	Nox
Wetland Hydrology Present? Yes No	<u>x</u>		
Remarks:			Observed Classifications:
Data point was taken within an existing overhead utility ea		, ,	Cowardin:
vegetation. Soils meet the depleted matrix hydric indicator		retiand conditions;	
however, hydrology and vegetation do not meet the wetla	illu criteria.		
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indic	ators (minimum of two required)
Primary Indicators (minimum of one is required; check all that a	apply)	Surface Soi	l Cracks (B6)
Surface Water (A1) Aquatic Faur	na (B13)	Sparsely Ve	egetated Concave Surface (B8)
	s (B15) (LRR U)	Drainage Pa	atterns (B10)
Saturation (A3) Hydrogen Su	ılfide Odor (C1)	Moss Trim I	Lines (B16)
Water Marks (B1) Oxidized Rhi	zospheres along Living R	oots (C3) Dry-Season	Water Table (C2)
Sediment Deposits (B2) Presence of	Reduced Iron (C4)	Crayfish Bu	rrows (C8)
Drift Deposits (B3) Recent Iron I	Reduction in Tilled Soils (C6) Saturation \	/isible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck S	urface (C7)	Geomorphic	c Position (D2)
Iron Deposits (B5) Other (Expla	in in Remarks)	Shallow Aqu	uitard (D3)
Inundation Visible on Aerial Imagery (B7)		FAC-Neutra	
Water-Stained Leaves (B9)		Sphagnum	moss (D8) (LRR T, U)
Field Observations:			
Surface Water Present? Yes Nox Depth (i			
Water Table Present? Yes No _x Depth (i	nches): <u>N/A</u>		
Saturation Present? Yes No _x Depth (i	nches): N/A	Wetland Hydrology Prese	nt? Yes No _x
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aeria	photos, previous inspect	ions), if available:	
		,,	
Remarks:			

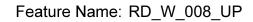
Sampling	Doint:	ΒD	۱۸/	$\cap \cap \Omega$	110
Sambiino	ı Pomi.	עח	٧V	UUO	10

		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft)	% Cover	Species?	Status	Number of Dominant Species
1. <u>N/A</u>				That Are OBL, FACW, or FAC:0 (A)
2				Total Number of Dominant
3				Species Across All Strata:3 (B)
4				Barrant of Barrin and On a sing
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)
6.				That 740 OBE, 1740W, G1740.
		= Total Cov	er	Prevalence Index worksheet:
50% of total cover: 0				Total % Cover of: Multiply by:
Sapling Stratum (Plot size: 30 ft)	20 70 01	total cover.		OBL species0 x 1 =0
4 NI/A				FACW species0 x 2 =0
1. <u>N/A</u>				FAC species15 x 3 =45
2				FACU species60 x 4 =240
3				UPL species 0 x 5 = 0
4				Column Totals: 75 (A) 285 (B)
5				Column Totals(A)(B)
6				Prevalence Index = B/A =3.80
		= Total Cov	er	Hydrophytic Vegetation Indicators:
50% of total cover: 0	20% of	total cover:	0	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft)				2 - Dominance Test is >50%
1. <u>N/A</u>				I
				3 - Prevalence Index is ≤3.0 ¹
2				Problematic Hydrophytic Vegetation¹ (Explain)
3				
4				¹ Indicators of hydric soil and wetland hydrology must
5				be present, unless disturbed or problematic.
6				Definitions of Five Vegetation Strata:
	0	= Total Cov	er	Tree – Woody plants, excluding woody vines,
50% of total cover:0	20% of	total cover	0	approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: 30 ft)				(7.6 cm) or larger in diameter at breast height (DBH).
1. Parthenocissus quinquefolia, Virginia-Creeper	15	<u>Yes</u>	<u>FACU</u>	Sapling – Woody plants, excluding woody vines,
2. Lonicera japonica, Japanese Honeysuckle	15	Yes	_FACU_	approximately 20 ft (6 m) or more in height and less
3. Achillea millefolium, Common Yarrow			FACU	than 3 in. (7.6 cm) DBH.
4. Digitaria sanguinalis, Hairy Crab Grass			FACU	Shrub – Woody plants, excluding woody vines,
Solidago rugosa, Wrinkle-Leaf Goldenrod				approximately 3 to 20 ft (1 to 6 m) in height.
			FACU	Harb All harbaconus (non woods) plants including
			FAC	Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, <u>and</u> woody
7. Rubus argutus, Saw-Tooth Blackberry				plants, except woody vines, less than approximately
8				3 ft (1 m) in height.
9				Woody vine - All woody vines, regardless of height.
10				,,
11				
	70	= Total Cov	er	
50% of total cover: <u>37.5</u>	20% of	total cover:	15	
Woody Vine Stratum (Plot size: 30 ft)				
1. <u>N/A</u>				
2.				
3.				
4				
5		T-1-1-0		Hydrophytic
		= Total Cov		Vegetation Present?
50% of total cover: 0		total cover:		
Remarks: (If observed, list morphological adaptations belo	w).			

SOIL Sampling Point: RD_W_008_UP

Profile Des	cription: (Describe	to the depth r	needed to docu	ment the i	ndicator	or confirm	the absence	of indicators.)	
Depth	Matrix			x Features					
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type'	Loc ²	<u>Texture</u>	Remarks	
0-20	10YR 4/2	95% 10	YR 5/6	5%			Silty clay loam		
l ———									
l									
l 									
¹ Type: C=C	oncentration, D=Dep	letion, RM=Re	duced Matrix, M	S=Masked	Sand Gr	ains.	² Location:	PL=Pore Lining, M=Matrix.	
Hydric Soil	Indicators: (Applic	able to all LR	Rs, unless othe	rwise note	ed.)		Indicators	for Problematic Hydric So	ils³:
Histoso	(A1)		Polyvalue Be	elow Surfac	ce (S8) (L	.RR S, T, L	J)1 cm M	luck (A9) (LRR O)	
Histic E	pipedon (A2)		Thin Dark S				- —	uck (A10) (LRR S)	
Black H	istic (A3)		Loamy Muck					ed Vertic (F18) (outside ML	RA 150A,B)
	en Sulfide (A4)	_	Loamy Gley			,		ont Floodplain Soils (F19) (L	
	d Layers (A5)		× Depleted Ma	,	,			lous Bright Loamy Soils (F2	
ı —	Bodies (A6) (LRR P	, T, U) -	Redox Dark	Surface (F	6)			(A 153B)	
	ucky Mineral (A7) (LF	•	Depleted Da	,	,		•	rent Material (TF2)	
_	resence (A8) (LRR U		Redox Depre					hallow Dark Surface (TF12)	
ı —	uck (A9) (LRR P, T)		 Marl (F10) (I		,		Other (Explain in Remarks)	
Deplete	d Below Dark Surfac	e (A11)	Depleted Oc	hric (F11)	(MLRA 1	51)			
Thick D	ark Surface (A12)		Iron-Mangan	ese Masse	es (F12) (LRR O, P,	T) ³ Indic	ators of hydrophytic vegetat	ion and
Coast F	rairie Redox (A16) (I	/ILRA 150A)	Umbric Surfa	ace (F13) (LRR P, T	, U)	wetl	and hydrology must be pres	ent,
Sandy N	Mucky Mineral (S1) (I	RR O, S)	Delta Ochric	(F17) (ML	RA 151)		unle	ess disturbed or problematic	
Sandy (Gleyed Matrix (S4)	_	Reduced Ve	rtic (F18) (MLRA 15	0A, 150B)			
Sandy F	Redox (S5)	_	Piedmont Fle	oodplain S	oils (F19)	(MLRA 14	I9A)		
Stripped	d Matrix (S6)	_	Anomalous I	Bright Loan	ny Soils (F20) (MLR	A 149A, 153C,	153D)	
Dark Su	ırface (S7) (LRR P, S	s, T, U)							
Restrictive	Layer (if observed):								
Туре: <u>N/</u>	A		_						
	ches): None						Hydric Soil	Present? Yesx	No
Remarks:	,		_				1 -		
Tromants.									
I									

Date: 5/19/21







Photograph Direction East

Comments:

Photograph Direction West

Comments:





Photograph Direction South

Comments:

Photograph Direction North

Photograph Log

Date:	Feature Name: RD_W_008_UP
Photograph Direction	Photograph Direction
Comments: View of soil core	Comments:
Photograph Direction	Photograph Direction
Comments:	Comments:

5/19/21

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Dominion CVOW	V	City/C	County: Virginia Beach/	[/] Virginia Beach	Sampling Date:	5/20/2021
Applicant/Owner: Dominion				State: VA	Sampling Point: R[O_W_009
Investigator(s): R. Delahunty		Section Section	on, Township, Range: _			
Landform (hillslope, terrace, et						(%): 1
Subregion (LRR or MLRA): MI	,					
Soil Map Unit Name: 1 - Acredal						II. <u>170301</u>
Are climatic / hydrologic condit						
Are Vegetation, Soil		-				No
Are Vegetation, Soil				explain any answe		_ ''`
SUMMARY OF FINDING					,	tures, etc.
Hydrophytic Vegetation Present?		No No	Is the Sampled Area			
Wetland Hydrology Present?		No	within a Wetland?	Yesx	No	
Remarks:					Observed Classific	cations
Data point was taken within	n an existing overhea	d utility easement.			Cowardin:	
	3				Cowarum.	
HYDROLOGY						
Wetland Hydrology Indicate	ors:			Secondary Indica	ators (minimum of tw	o required)
Primary Indicators (minimum	of one is required; che	ck all that apply)		_x Surface Soil	Cracks (B6)	
Surface Water (A1)	A	quatic Fauna (B13)		Sparsely Ve	getated Concave Su	ırface (B8)
High Water Table (A2)		larl Deposits (B15) (LRF	R U)	Drainage Pa	_	
Saturation (A3)		ydrogen Sulfide Odor (0		Moss Trim L		
Water Marks (B1)		xidized Rhizospheres a		Dry-Season	Water Table (C2)	
Sediment Deposits (B2)	P	resence of Reduced Iro	on (C4)	x Crayfish Bur	rows (C8)	
Drift Deposits (B3)		ecent Iron Reduction in			isible on Aerial Imag	gery (C9)
X Algal Mat or Crust (B4)	TI	hin Muck Surface (C7)		Geomorphic	Position (D2)	
Iron Deposits (B5)	_ 0	ther (Explain in Remark	ks)	Shallow Aqu	itard (D3)	
Inundation Visible on Aer			•	x FAC-Neutral	, ,	
water-Stained Leaves (E	39)				noss (D8) (LRR T, U	J)
Field Observations:						
Surface Water Present?	Yes Nox	Depth (inches):				
Water Table Present?		Depth (inches):				
Saturation Present?	Yes Nox	Depth (inches):	Wetland	Hydrology Preser	nt? Yesx	No
(includes capillary fringe)						
Describe Recorded Data (stre	eam gauge, monitoring	well, aerial photos, pre	vious inspections), it av	ailable:		
<u></u>						
Remarks:				- ~=		
Saturation was observed at	approximately 16 inc	ches. This wetland is o	contiguous with RD_S	_005.		
						-

50% of total cover: ___0__ 20% of total cover: ___0__

/EGETATION (Five Strata) – Use scientific nan			I	Daminon a Tratamental at	009
Tree Stratum (Plot size: 30 ft)		Dominant Species?		Dominance Test worksheet:	
1. <u>N/A</u>				Number of Dominant Species That Are OBL, FACW, or FAC:4((A)
2.				Tatal Number of Description	
3.				Total Number of Dominant Species Across All Strata: 4	(B)
4.					(2)
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0%	(A/B)
6				That Ale OBE, FACW, OF FAC.	(~6)
		= Total Cov	er	Prevalence Index worksheet:	
50% of total cover: 0	20% of	total cover	. 0	Total % Cover of: Multiply by:	-
Sapling Stratum (Plot size: 30 ft)	_			OBL species <u>45</u> x 1 = <u>45</u>	
1. <u>N/A</u>				FACW species50 x 2 =100	
2				FAC species5 x 3 =15	
3.				FACU species 0 x 4 = 0	
4.				UPL species0 x 5 =0	
5				Column Totals:100 (A)160	(B)
6.				December 2 1 60	
·	0	= Total Cov	/er	Prevalence Index = B/A = 1.60	
50% of total cover: 0				Hydrophytic Vegetation Indicators:	
Shrub Stratum (Plot size: 30 ft)	2070 01	total cover		1 - Rapid Test for Hydrophytic Vegetation	
1. <u>Iva annua, Annual Marsh-Elder</u>	5	Yes	FAC	X 2 - Dominance Test is >50%	
2. Fraxinus pennsylvanica, Green Ash				X 3 - Prevalence Index is ≤3.0¹	
3			171011	Problematic Hydrophytic Vegetation¹ (Explain))
4				1	
5				¹ Indicators of hydric soil and wetland hydrology mube present, unless disturbed or problematic.	ust
5				Definitions of Five Vegetation Strata:	
o	10	= Total Cov		Bollina of 1110 Vogotation Grata.	
50% of total cover:5				Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in	i.
Herb Stratum (Plot size: 30 ft)	20 /0 01	total cover		(7.6 cm) or larger in diameter at breast height (DBI	
	40	Yes	EVC/W		
2 Lucian officers Laws Bush		Yes		Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and les	ss
2. Juncus ettusus, Lamp Rush 3. Saururus cernuus, Lizard's-Tail	5	No	OBL	than 3 in. (7.6 cm) DBH.	
4. Carex scoparia, Pointed Broom Sedge	5	No	FACW	Shrub – Woody plants, excluding woody vines,	
5			TACV	approximately 3 to 20 ft (1 to 6 m) in height.	
				Herb – All herbaceous (non-woody) plants, includi	ina
6				herbaceous vines, regardless of size, and woody	nig
7				plants, except woody vines, less than approximate	эly
8 9				3 ft (1 m) in height.	
				Woody vine - All woody vines, regardless of height	jht.
10					
11					
500/ -5t-t-1 AF		= Total Cov			
50% of total cover: 45	20% of	total cover	18		
Woody Vine Stratum (Plot size: 30 ft)					
1. <u>N/A</u>					
2					
3					
4					
5				Hydrophytic	
	0	= Total Cov		Vegetation	

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

SolL Sampling Point: RD_W_009

Depth	cription: (Describe Matrix			x Features				
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-8	10YR 3/2	98%	10YR 4/6	2%	C	M	Sandy clay loam	
8-20	7.5YR 4/1	98%	7.5YR 4/6	2%	C	М	Sandy clay	
	Concentration, D=Dep					ains.		=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applic	able to all						Problematic Hydric Soils ³ :
Histoso			Polyvalue Be				· —	(A9) (LRR O)
	Epipedon (A2)		Thin Dark Su					(A10) (LRR S)
	listic (A3) en Sulfide (A4)		Loamy Muck Loamy Gleye	_		0)		Vertic (F18) (outside MLRA 150A,B) Floodplain Soils (F19) (LRR P, S, T)
	ed Layers (A5)		× Depleted Ma	,	-/			s Bright Loamy Soils (F20)
Organi	Bodies (A6) (LRR P	, T, U)	Redox Dark	Surface (F	6)		(MLRA 1	153B)
	ucky Mineral (A7) (Lf		Depleted Dai		` '			nt Material (TF2)
	resence (A8) (LRR U)	Redox Depre	,	3)			ow Dark Surface (TF12)
	uck (A9) (LRR P, T) ed Below Dark Surfac	o (A11)	Marl (F10) (L Depleted Oct	•	/MIDA 1/	:4\	Other (Exp	plain in Remarks)
	ark Surface (A12)	e (ATT)	Iron-Mangan	, ,	•		. T) ³ Indicator	rs of hydrophytic vegetation and
	Prairie Redox (A16) (N	/ILRA 150/	_		. , .			d hydrology must be present,
Sandy	Mucky Mineral (S1) (I	RR O, S)	Delta Ochric	(F17) (ML	RA 151)			disturbed or problematic.
	Gleyed Matrix (S4)		Reduced Ver	, , ,			•	
	Redox (S5)		Piedmont Flo					2 D)
	d Matrix (S6) urface (S7) (LRR P, S	: T II)	Anomalous E	sright Loan	ny Solis (i	-20) (IVILI	RA 149A, 153C, 15	30)
	Layer (if observed):							
Type: N								
	nches): N/A						Hydric Soil Pre	esent? Yesx No
Remarks:	, 						•	

Date: 5/20/21

Feature Name: RD_W_009



Photograph Number 1
Photograph Direction North

Comments:



Photograph Number 2
Photograph Direction East

Comments:



Photograph Number 3
Photograph Direction South

Comments:



Photograph Number 4
Photograph Direction West

Photograph Log

Date:	Feature Name: RD_W_009
Photograph Number5	Photograph Number6
Photograph Direction	Photograph Direction
Comments: View of soil core	Comments:
Photograph Number7	Photograph Number8
Photograph Direction	Photograph Direction
Comments:	Comments:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Dominion CVOW	1		City/C	County: Virgin	nia Beach/\	Virginia Beach	Sampling Date:	5/20/2021
Applicant/Owner: Dominion						State: VA	Sampling Point: RE	O W 009-011_UP
Investigator(s): R. Delahunty			Section Section	on, Township,	, Range:			
Landform (hillslope, terrace, etc								(%): 0
Subregion (LRR or MLRA): ML								
Soil Map Unit Name: 38 - Tomoti						NWI classific		
Are climatic / hydrologic conditi								
Are Vegetation, Soil	-	-					present? Yes x	No
Are Vegetation, Soil			-			explain any answe		
SUMMARY OF FINDING					,		,	tures etc.
					Ti To Guille	ono, transcotto	, important roa	
Hydrophytic Vegetation Prese Hydric Soil Present?		N		Is the Samp	pled Area			
Wetland Hydrology Present?		N		within a We	etland?	Yes	Nox	
Remarks:							Observed Classific	cations:
Data point taken adjacent t	o a raised unimլ	proved acce	ess road and ch	aracterized k	y early su	ccessional	Cowardin:	
vegetation.								
LIVEROLOGY								
HYDROLOGY						Canandani Indiaa	stava (minimum of tu	an an annian al
Wetland Hydrology Indicato		المعادمال	hat annly)				ators (minimum of tw	io requirea)
Primary Indicators (minimum	of one is required					Surface Soil	` '	reference (DR)
Surface Water (A1) High Water Table (A2)	-		Fauna (B13) posits (B15) (LR I	D III		Sparsely veg	getated Concave Su	mace (B6)
Saturation (A3)	-		en Sulfide Odor (-		Moss Trim Li	, ,	
Water Marks (B1)	_		d Rhizospheres a	,	oots (C3)	-	Water Table (C2)	
Sediment Deposits (B2)	_		e of Reduced Iro		(00)	Crayfish Bur	, ,	
Drift Deposits (B3)	_		ron Reduction in		C6)		isible on Aerial Imag	gery (C9)
Algal Mat or Crust (B4)	_	Thin Mu	ck Surface (C7)			Geomorphic	Position (D2)	
Iron Deposits (B5)	-	Other (E	xplain in Remark	ks)		Shallow Aqu	itard (D3)	
Inundation Visible on Aer	ial Imagery (B7)					FAC-Neutral	Test (D5)	
Water-Stained Leaves (B	19)					Sphagnum n	noss (D8) (LRR T, U	J)
Field Observations:								
Surface Water Present?			oth (inches):					
Water Table Present?	Yes No							
Saturation Present? (includes capillary fringe)	Yes No	x Dep	oth (inches):		Wetland I	Hydrology Preser	nt? Yes	Nox
Describe Recorded Data (stre	am gauge, moni	toring well, a	aerial photos, pre	vious inspect	ions), if ava	ailable:		
Remarks:								
No hydrology indicators ob	served.							

	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft) 1. N/A	% Cover Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC:0 (A)
2		Total Number of Dominant Species Across All Strata:1 (B)
4 5		Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)
6		
	0 = Total Cover	Prevalence Index worksheet:
50% of total cover: 0	20% of total cover:0	
Sapling Stratum (Plot size: 30 ft)		OBL species 0 x 1 = 0 FACW species 0 x 2 = 0
1. <u>N/A</u>		
2		FAC species 5 x 3 = 15
3		FACU species
4		
5		Column Totals:100 (A)475 (B)
6		Prevalence Index = B/A =4.75
500/ of total anyon:		Hydrophytic Vegetation Indicators:
	20% of total cover:0	_ rapid rest for rigar ophrytic regulation
Shrub Stratum (Plot size: 30 ft)		2 - Dominance Test is >50%
1. <u>N/A</u>		3 - Prevalence Index is ≤3.01
2		Problematic Hydrophytic Vegetation ¹ (Explain)
		•
4		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5 6		Definitions of Five Vegetation Strata:
· ·	= Total Cover	-
50% of total cover:0	20% of total cover: 0	Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: 30 ft)		(7.6 cm) or larger in diameter at breast height (DBH).
Apocynum androsaemifolium, Spreading Dogbane		Sapling – Woody plants, excluding woody vines,
2. Parthenocissus quinquefolia, Virginia-Creeper		approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
3. Lolium perenne, Perennial Rye Grass		· I man o m. (7.0 cm) bbn.
Solidago rugosa, Wrinkle-Leaf Goldenrod S.		Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
6		Herb – All herbaceous (non-woody) plants, including
7 8		herbaceous vines, regardless of size, <u>and</u> woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
9.		
10		Woody vine – All woody vines, regardless of height.
11		
	= Total Cover	
50% of total cover:50	20% of total cover: 20	
Woody Vine Stratum (Plot size: 30 ft)		
1. <u>N/A</u>		
2		
3		
4		
5		Hydrophytic
	0 = Total Cover	Vegetation
50% of total cover:0	20% of total cover:0	Present? Yes No _x
Remarks: (If observed, list morphological adaptations belo	DW).	

pe: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. dric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	Depth (inches)	Matrix Color (moist)	 _	Redo Color (moist)	x Features %	Type ¹	Loc ²	Texture	Rem	arks
pe: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. dric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)				OGIOI (IIIOIST)		1700			Nom	arks
Histosol (A1)		10111 4/2						Silty Idaili		
Histosol (A1)										
Histosol (A1)										
Histosol (A1)										
Histosol (A1)										
Histosol (A1)										
Histosol (A1)										
Histosol (A1)										
Histosol (A1)	me: C=C	Concentration D=Dec	oletion PM-P	educed Matrix M	S-Maskad S	Sand Gr	aine.	2l ocation: DI	I - Dore Lining M	-Matriy
Histosol (A1)							allis.			
Histic Epipedon (A2) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Matrix (F2) Muck Presence (A8) (LRR P, T, U) Depleted Dark Surface (F7) Loamy Mucky Mineral (F1) (LRR O, Beduced Vertic (F18) (outside MLRA 150 (MLRA 149 (MLRA 14			abio to all El				PP C T III			, 4.1.0 40110 .
Black Histic (A3)										
Hydrogen Sulfide (A4)									, , ,	
Stratified Layers (A5) Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Muck Presence (A8) (LRR U) 1 cm Muck (A9) (LRR P, T) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Sandy Redox (S5) Detta Ochric (F17) (MLRA 150A, Anomalous Bright Loamy Soils (F20) Marl (F10) (LRR U) Depleted Dark Surface (F12) Marl (F10) (LRR U) Depleted Ochric (F11) (MLRA 151) Iron-Manganese Masses (F12) (LRR O, P, T) Wetland hydrology must be present, unless disturbed or problematic. Wetland hydrology must be present, unless disturbed or problematic. Marl (F10) (LRR P, T, U) Wetland hydrology must be present, unless disturbed or problematic. Wetland hydrology must be present, unless disturbed or problematic. Wetland hydrology must be present, unless disturbed or problematic. Wetland hydrology must be present, unless disturbed or problematic. Wetland hydrology must be present, unless disturbed or problematic. Wetland hydrology must be present, unless disturbed or problematic. Wetland hydrology must be present, unless disturbed or problematic. Wetland hydrology must be present, unless disturbed or problematic. Wetland hydrology must be present, unless disturbed or problematic. Wetland hydrology must be present, unless disturbed or problematic. Wetland hydrology must be present, unless disturbed or problematic. Wetland hydrology must be present, unless disturbed or problematic. Wetland hydrology must be present, unless disturbed or problematic. Wetland hydrology must be present, unless disturbed or problematic. Wetland hydrology must be present, unless disturbed or problematic. Wetland hydrology must be present, unless disturbed or problematic. Wetland hydrology must be present, unless disturbed or problematic.		, ,					. 0,			
Organic Bodies (A6) (LRR P, T, U)		, ,			•	_,				
5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Iron-Manganese Masses (F12) (LRR O, P, T) Indicators of hydrophytic vegetation and Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) wetland hydrology must be present, Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) unless disturbed or problematic. Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Strictive Layer (if observed): Type: Raised access road Depth (inches): 6 Hydric Soil Present? Yes No			P. T. U)			6)				
Muck Presence (A8) (LRR U)					`	,		•	•	
1 cm Muck (A9) (LRR P, T)									, ,	
Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Strictive Layer (if observed): Type: Raised access road Depleted Ochric (F11) (MLRA 151) Iron-Manganese Masses (F12) (LRR O, P, T) Iro		, , ,	•		, ,					
Thick Dark Surface (A12)				_ ` '	,	VILRA 1	51)			,
Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) unless disturbed or problematic. Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Strictive Layer (if observed): Type: Raised access road Depth (inches): 6 Hydric Soil Present? Yes No	Thick D	ark Surface (A12)	, ,					T) ³ Indicate	ors of hydrophytic	vegetation and
Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) unless disturbed or problematic. Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Strictive Layer (if observed): Type: Raised access road Depth (inches): 6 Hydric Soil Present? Yes No	Coast F	Prairie Redox (A16) (MLRA 150A)	Umbric Surfa	ace (F13) (L	RR P, T	, U)	wetlar	nd hydrology mus	t be present,
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Strictive Layer (if observed): Type: Raised access road Depth (inches): 6 Hydric Soil Present? Yes No	Sandy	Mucky Mineral (S1) (unless	disturbed or pro	blematic.
Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) strictive Layer (if observed): Type: Raised access road Depth (inches): 6 Hydric Soil Present? Yes No	Sandy	Gleyed Matrix (S4)		Reduced Ve	rtic (F18) (M	ILRA 15	0A, 150B)			
Dark Surface (S7) (LRR P, S, T, U) strictive Layer (if observed): Type: Raised access road Depth (inches): 6 Hydric Soil Present? Yes No	Sandy	Redox (S5)		Piedmont Fl	oodplain Soi	ils (F19)	(MLRA 149	9A)		
Strictive Layer (if observed): Type: Raised access road Depth (inches): 6 Hydric Soil Present? Yes No	Strippe	d Matrix (S6)		Anomalous I	Bright Loamy	y Soils (F20) (MLRA	A 149A, 153C, 1	53D)	
Type: Raised access road Depth (inches): 6 Hydric Soil Present? Yes No										
Depth (inches): 6 Hydric Soil Present? Yes No			:							
	Type: Ra	aised access road		_						
marks:	Depth (ir	nches): <u>6</u>						Hydric Soil Pr	esent? Yes _	Nox
	marks:									

Date: 5/20/21







Photograph Direction West

Comments:

Photograph Direction East

Comments:





Photograph Direction South

Comments:

Photograph Direction North

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Dominion CVOW	V	City/C	ounty: Virginia Beach		Sampling Date:	5/20/202
Applicant/Owner: Dominion				State: VA	Sampling Point: RE)_W 010
Investigator(s): R. Delahunty		Section	on, Township, Range:			
Landform (hillslope, terrace, et						(%): 2
Subregion (LRR or MLRA): ML						
						II. <u>W 6364</u>
Soil Map Unit Name: 1 - Acredal						
Are climatic / hydrologic condit		-				
Are Vegetation, Soil				al Circumstances"	present? Yes <u>x</u>	No
Are Vegetation, Soil	, or Hydrology	naturally problema	atic? (If needed,	explain any answe	ers in Remarks.)	
SUMMARY OF FINDING	3S – Attach site n	nap showing sam	pling point locati	ons, transects	s, important fea	tures, etc.
Hydrophytic Vegetation Prese		_ No	Is the Sampled Area			
Hydric Soil Present? Wetland Hydrology Present?		_ No	within a Wetland?	Yesx	No	
Remarks:	Yesx				Observed Classifi	
Data point taken in right-of	:-way. located betwee	n forested wetland o	onditions and an upla	nd	Observed Classific	
maintained lawn.	way, located between	Troncisted Wetland C	onanions and an apia		Cowardin:	
HYDROLOGY						
				Casandam, India	atore (minimum of to	
Wetland Hydrology Indicate		le all that annie)			ators (minimum of tw	o requirea)
Primary Indicators (minimum				_	Cracks (B6)	(D0)
Surface Water (A1)		uatic Fauna (B13)	5.10		getated Concave Su	rface (B8)
High Water Table (A2)		rl Deposits (B15) (LRF			itterns (B10)	
Saturation (A3)		drogen Sulfide Odor (0		Moss Trim L	, ,	
Water Marks (B1)			long Living Roots (C3)		Water Table (C2)	
Sediment Deposits (B2)		esence of Reduced Iro		Crayfish Bur	, ,	(00)
Drift Deposits (B3)		cent Iron Reduction in	filled Solls (Cb)		isible on Aerial Imag	ery (C9)
Algal Mat or Crust (B4)		n Muck Surface (C7)	>		Position (D2)	
Iron Deposits (B5)		ner (Explain in Remark	(8)	Shallow Aquestra x FAC-Neutra	, ,	
Inundation Visible on Aer x Water-Stained Leaves (E				_	noss (D8) (LRR T, U	n
Field Observations:))			Spriagrium	noss (Do) (LKK 1, U	,
Surface Water Present?	Vec No X	Depth (inches):				
Water Table Present?						
Saturation Present?	Yes No _x		Watland	Hudrology Broom	nt? Yes x	No
(includes capillary fringe)	res No	Depth (inches):	Wettaliu	nyurology Fresei	it! Tes	NO
Describe Recorded Data (stre	eam gauge, monitoring	well, aerial photos, pre	vious inspections), if av	ailable:		
Remarks:						
H						

	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft)	% Cover Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
		That Are OBL, FACW, or FAC:2 (A)
2		Total Number of Dominant Species Across All Strata: 2 (B)
3		Species Across All Strata:2 (B)
4		Percent of Dominant Species
5		That Are OBL, FACW, or FAC:100.0% (A/B)
6		Prevalence Index worksheet:
500/ of total agyor:		Total % Cover of: Multiply by:
Sapling Stratum (Plot size: 30 ft)	20% of total cover: 0	OBL species x 1 = 70
		FACW species30 x 2 =60
1. <u>N/A</u>		FAC species0 x 3 =0
2		FACU species 0 x 4 = 0
3		UPL species0 x 5 =0
4		Column Totals:100 (A)130 (B)
5		
6	0 = Total Cover	Prevalence Index = B/A =1.30
50% of total cover:	20% of total cover: 0	Hydrophytic Vegetation Indicators:
Shrub Stratum (Plot size: 30 ft)	20% of total cover	x 1 - Rapid Test for Hydrophytic Vegetation
		X 2 - Dominance Test is >50%
1. <u>N/A</u>		X 3 - Prevalence Index is ≤3.01
2		Problematic Hydrophytic Vegetation¹ (Explain)
3		
4		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5		Definitions of Five Vegetation Strata:
6	0 = Total Cover	Definitions of Five Vegetation Offata.
50% of total cover:	20% of total cover: 0	Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 30 ft)	20 % of total cover 0	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
Eleocharis palustris, Common Spike-Rush	60 Vec ORI	
Carex crinita, Fringed Sedge		Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
Juncus effusus, Lamp Rush		than 3 in. (7.6 cm) DBH.
4		Shrub – Woody plants, excluding woody vines,
5		approximately 3 to 20 ft (1 to 6 m) in height.
6		Herb – All herbaceous (non-woody) plants, including
7		herbaceous vines, regardless of size, and woody
8		plants, except woody vines, less than approximately
9		3 ft (1 m) in height.
10		Woody vine - All woody vines, regardless of height.
11		
	= Total Cover	
50% of total cover: 50	20% of total cover: 20	
Woody Vine Stratum (Plot size: 30 ft)	20 70 OF COLUMN COVER	
1. N/A		
2		
3		
4		
5		
	0 = Total Cover	Hydrophytic Vegetation
50% of total cover: 0	20% of total cover: 0	Present?
Remarks: (If observed, list morphological adaptations belo		
Vegetation observed within the forested wetland include		d Liquidambar styraciflua.

Sampling Point: RD W 010

SolL Sampling Point: RD_W 010

Depth	Matrix	to the depth				or confirm	the absence of i	ndicators.)
(inches)	Color (moist)	%	Color (moist)	Redox Features Type Loc²		Texture	Remarks	
0-10	10YR 5/1	98% 10	YR 5/6	2%	С	PL	Sandy clay	
10-20	GLY 4/1	95% 10)YR 5/4	5%		M	Clay	
10 20	011 4/1		11(3)4				Ciay	
¹ Type: C=C	oncentration, D=Dep	letion RM=R	educed Matrix MS:	=Masked	Sand Gra	ins	2l ocation: PL:	=Pore Lining, M=Matrix.
	Indicators: (Application)					ans.		Problematic Hydric Soils ³ :
Histoso			Polyvalue Beld			RR S. T. U		_
	pipedon (A2)		Thin Dark Sur				· —	(A10) (LRR S)
Black H	istic (A3)		Loamy Mucky				Reduced \	/ertic (F18) (outside MLRA 150A,B)
Hydrog	en Sulfide (A4)		Loamy Gleyed	l Matrix (F	2)		Piedmont	Floodplain Soils (F19) (LRR P, S, T)
_	d Layers (A5)		x Depleted Matr					s Bright Loamy Soils (F20)
	Bodies (A6) (LRR P		Redox Dark S	,	,		(MLRA 1	,
	ucky Mineral (A7) (LF		Depleted Dark					nt Material (TF2)
	resence (A8) (LRR U uck (A9) (LRR P, T))	Redox Depres Marl (F10) (LF	,)			ow Dark Surface (TF12) blain in Remarks)
	d Below Dark Surface	e (Δ11)	Depleted Ochr	•	MIRA 14	(1)	Other (Exp	naiii iii Reiliaiks)
	ark Surface (A12)	0 (/ (11/)	Iron-Mangane	. , .		,	T) ³ Indicator	s of hydrophytic vegetation and
ı —	rairie Redox (A16) (N	/ILRA 150A)	Umbric Surfac				•	hydrology must be present,
Sandy	Mucky Mineral (S1) (L	.RR O, S)	Delta Ochric (I	F17) (MLF	RA 151)			disturbed or problematic.
	Gleyed Matrix (S4)		Reduced Verti					
	Redox (S5)		Piedmont Floo					
	d Matrix (S6)		Anomalous Br	ight Loam	ıy Soils (F	20) (MLR	A 149A, 153C, 15	3D)
	ırface (S7) (LRR P, S Layer (if observed):							
Type: No								
			_				Under Call Dea	ant2 Van X Na
	iches): N/A		<u> </u>				Hydric Soil Pre	sent? Yesx No
Remarks:								

Date: 5/20/21

Feature Name: RD_W_010



Photograph Number 1
Photograph Direction East

Comments:



Photograph Number 2
Photograph Direction North

Comments:



Photograph Number 3
Photograph Direction West

Comments:



Photograph Number 4
Photograph Direction South

Photograph Log

Date:	Feature Name: RD_W_010
Photograph Number5	Photograph Number6
Photograph Direction	Photograph Direction
Comments: View of soil core	Comments:
Photograph Number7	Photograph Number 8
Photograph Direction	Photograph Direction
Comments:	Comments:

Project/Site: Dominion CVOW	1		City/County: Virgi	nia Beach/Vi	rginia Beach	Sampling Date:	5/20/2021
Applicant/Owner: Dominion						Sampling Point: R	
Investigator(s): R. Delahunty			Section, Township	o, Range:			
Landform (hillslope, terrace, et							(%): 0
Subregion (LRR or MLRA): ML							
Soil Map Unit Name: 1 - Acredale							III. <u>17 000 .</u>
Are climatic / hydrologic conditi							
		-					NI-
Are Vegetation, Soil							No
Are Vegetation, Soil	, or Hydrology	naturally pro	oblematic?	(If needed, ex	plain any answe	rs in Remarks.)	
SUMMARY OF FINDING	S – Attach sit	e map showing	sampling poi	int locatior	ıs, transects	, important fea	itures, etc.
Hydrophytic Vegetation Prese	ant? Yes	Nox					
Hydric Soil Present?		Nox	Is the Sam	•			
Wetland Hydrology Present?		Nox	within a W	etland?	Yes	Nox	
Remarks:						Observed Classifi	ications:
Data point taken within a m	naintained park lav	wn within a residen	tial neighborhoo	d.		Cowardin:	
HYDROLOGY							
Wetland Hydrology Indicato	ors:			5	Secondary Indica	ators (minimum of tw	wo required)
Primary Indicators (minimum		check all that apply)			Surface Soil	Cracks (B6)	
Surface Water (A1)		Aquatic Fauna (B13	3)		_	getated Concave Su	urface (B8)
High Water Table (A2)	_	Marl Deposits (B15		_	Drainage Pa		
Saturation (A3)		Hydrogen Sulfide C		_	Moss Trim Li		
Water Marks (B1)	_	Oxidized Rhizosphe		Roots (C3)	Dry-Season	Water Table (C2)	
Sediment Deposits (B2)	_	Presence of Reduc	ed Iron (C4)	Crayfish Burrows (C8)			
Drift Deposits (B3)	_	Recent Iron Reduct	tion in Tilled Soils	(C6) _	Saturation V	isible on Aerial Imag	gery (C9)
Algal Mat or Crust (B4)	_	Thin Muck Surface	(C7)	-	Geomorphic	Position (D2)	
Iron Deposits (B5)	_	Other (Explain in R	emarks)	-	Shallow Aqu	itard (D3)	
Inundation Visible on Aer	rial Imagery (B7)			-	FAC-Neutral	Test (D5)	
Water-Stained Leaves (E	39)				Sphagnum n	noss (D8) (LRR T, l	J)
Field Observations:							
Surface Water Present?		x Depth (inches)					
Water Table Present?	Yes No _	x Depth (inches)):				
Saturation Present?		x Depth (inches)		Wetland Hy	drology Preser	nt? Yes	Nox
(includes capillary fringe) Describe Recorded Data (stre	eam gauge, monitor	ing well, aerial photo	os, previous inspec	tions), if avail	able:		
	3		,	,,			
Remarks:							
No hydrology indicators we	re observed.						
, ,							

	Absolute Dominant India	1
Tree Stratum (Plot size: 30 ft) 1. N/A	% Cover Species? Sta	Number of Dominant Species That Are OBL, FACW, or FAC:0 (A)
2 3		Total Number of Dominant Species Across All Strata: 1 (B)
4		Percent of Dominant Species
5 6		That Are OBL, FACW, or FAC: (A/B)
	0 = Total Cover	Prevalence Index worksheet:
	20% of total cover:	
Sapling Stratum (Plot size: 30 ft)		OBL species0 x 1 =0
1. <u>N/A</u>		FACW species10 x 2 =20
2.		FAC species10 x 3 =30
3.		FACU species55 x 4 =220
4.		UPL species 5 x 5 = 25
5		Column Totals: <u>80</u> (A) <u>295</u> (B)
6		Prevalence Index = B/A =3.69
	0 = Total Cover	Hydrophytic Vegetation Indicators:
50% of total cover: 0	20% of total cover:	
Shrub Stratum (Plot size: 30 ft)		2 - Dominance Test is >50%
1. <u>N/A</u>		3 - Prevalence Index is ≤3.0¹
2		
3		
4		
5		
6		Definitions of Five Vegetation Strata:
	0 = Total Cover	Tree – Woody plants, excluding woody vines,
	20% of total cover:	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: 30 ft)		
1. Cynodon dactylon, Bermuda Grass		
2. Ranunculus abortivus, Kidney-Leaf Buttercup		
3. Juncus tenuis, Lesser Poverty Rush		i
Oxalis stricta, Upright Yellow Wood-Sorrel .		approximately 3 to 20 ft (1 to 6 m) in height.
6		Herb – All herbaceous (non-woody) plants, including
7 8		herbaceous vines, regardless of size, <u>and</u> woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
9.		
10		Woody vine – All woody vines, regardless of height.
11.		
	80 = Total Cover	
50% of total cover: <u>40</u>	20% of total cover:1	6
Woody Vine Stratum (Plot size: 30 ft)		
1. <u>N/A</u>		
2		
3		
4		<u> </u>
5		— Hydrophytic
	0 = Total Cover	Vegetation
	20% of total cover:	0 Liazairi 162 MO
Remarks: (If observed, list morphological adaptations belo	w).	
L		

SOIL Sampling Point: RD_W_010_UP

Depth	cription: (Describe Matrix	to the depth r		ment the i x Feature:		or confirm	the absence of	Indicators.)
(inches)	Color (moist)	%	Color (moist)	% realure	Type ¹	Loc ²	Texture	Remarks
0-6	10YR 5/3	100%					Clay loam	_
						-		
		· — —						
	Concentration, D=Dep					ains.		L=Pore Lining, M=Matrix.
Hydric Soi	Indicators: (Applic	able to all LRI	Rs, unless othe	rwise not	ed.)		Indicators fo	r Problematic Hydric Soils ³ :
Histoso		_	Polyvalue Be				· —	ck (A9) (LRR O)
	pipedon (A2)	-	Thin Dark Su					ck (A10) (LRR S)
	listic (A3)	-	Loamy Muck	-		l O)		Vertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4) ed Layers (A5)	-	Loamy Gleye Depleted Ma	,	F2)			t Floodplain Soils (F19) (LRR P, S, T) us Bright Loamy Soils (F20)
	Bodies (A6) (LRR P	T II) -	Redox Dark		6)		(MLRA	
_	ucky Mineral (A7) (LF	•	Depleted Da	,	,		•	ent Material (TF2)
	resence (A8) (LRR U	· · · · · -	Redox Depre		. ,			llow Dark Surface (TF12)
	uck (A9) (LRR P, T)	, <u> </u>	Marl (F10) (L	,	-,			(plain in Remarks)
	ed Below Dark Surfac	e (A11)	Depleted Oc	hric (F11)	(MLRA 1	51)		
Thick E	ark Surface (A12)	_	Iron-Mangan	ese Mass	es (F12) (LRR O, P,	T) ³ Indicate	ors of hydrophytic vegetation and
	Prairie Redox (A16) (N	, <u>-</u>	Umbric Surfa	. ,	,	', U)		nd hydrology must be present,
	Mucky Mineral (S1) (L	RRO,S)_	Delta Ochric				unless	disturbed or problematic.
	Gleyed Matrix (S4)	-	Reduced Ve	, , ,			0.6)	
	Redox (S5)	-	Piedmont Flo					53D)
	d Matrix (S6) urface (S7) (LRR P, S	- T II)	Anomalous E	Sright Loar	ny sons (F20) (WLK)	A 149A, 153C, 1	550)
	Layer (if observed):						T	
	ard pack clay							
	nches): 6		-				Hydric Soil Pr	resent? Yes Nox
. `	iciles). <u>-</u>		-				Hydric 3011 F1	esent: lesNO
Remarks:								

Date: 5/20/21

Feature Name: RD_W_010_UP





Photograph Direction North

Comments:

Photograph Direction _____

Comments: View of soil core





Photograph Direction South

Comments:

Photograph Direction East

Comments:

Photograph Log

Date: 5/20/21	Feature Name: RD_W_010_UP
Photograph Direction West	Photograph Direction
Comments:	Comments:
Photograph Direction	Photograph Direction
Comments:	Comments:

Project/Site: Dominion CVOW	City/County: Virgin	a Beach/Virginia Beach	Sampling Date: 5/20/2021
Applicant/Owner: Dominion		State: <u>VA</u>	Sampling Point: RD-W011-PFO
Investigator(s): R. Delahunty	Section, Township,	Range:	
Landform (hillslope, terrace, etc.): Depression			
Subregion (LRR or MLRA): MLRA 153B of LRR T Lat:			
Soil Map Unit Name: 1 - Acredale silt loam			
Are climatic / hydrologic conditions on the site typical for this time of ye			
Are Vegetation, Soil, or Hydrology significantly			
Are Vegetation, Soil, or Hydrology naturally pr		f needed, explain any answe	
SUMMARY OF FINDINGS – Attach site map showing			•
Hydrophytic Vegetation Present? Yesx No Hydric Soil Present? Yesx No Wetland Hydrology Present? Yesx No			No
Remarks:			Observed Classifications: Cowardin:
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indica	tors (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) Aquatic Fauna (B1) High Water Table (A2) Marl Deposits (B1) Saturation (A3) Hydrogen Sulfide (A2) Water Marks (B1) Oxidized Rhizosph (A2) Sediment Deposits (B2) Presence of Reduction Print Deposits (B3) Recent Iron Reduction (B4) Iron Deposits (B5) Other (Explain in Faundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	13) 5) (LRR U) Odor (C1) neres along Living Ro ced Iron (C4) ction in Tilled Soils (C	Drainage Par Moss Trim Li pots (C3)	getated Concave Surface (B8) tterns (B10) ines (B16) Water Table (C2) rows (C8) isible on Aerial Imagery (C9) Position (D2) itard (D3)
Field Observations: Surface Water Present? Yes No _x Depth (inches Water Table Present? Yes No _x Depth (inches Saturation Present? Yes No _x Depth (inches (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial phot Remarks:	s):	Wetland Hydrology Presenons), if available:	nt? Yes <u>×</u> No

		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft)		Species?		Number of Dominant Species
Acer rubrum, Red Maple	30	<u>Yes</u>	<u>FAC</u>	That Are OBL, FACW, or FAC: 7 (A)
2. <u>Liquidambar styraciflua, Sweet-Gum</u>	15	Yes	FAC	Total Number of Dominant
3. Quercus michauxii, Swamp Chestnut Oak	15	Yes	FACW	Species Across All Strata: 8 (B)
4. Carya ovata, Shag-Bark Hickory	15	Yes	_FACU_	
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 87.5% (A/B)
6				That Ale OBL, PACVV, of PAC (A/B)
o		= Total Cov	or.	Prevalence Index worksheet:
500/ oftetal agrees 27 E				Total % Cover of: Multiply by:
50% of total cover: <u>37.5</u>	20% 01	total cover	15	OBL species x 1 = 20
Sapling Stratum (Plot size: 30 ft)				FACW species55 x 2 =110
Carpinus caroliniana, American Hornbeam			<u>FAC</u>	FAC species x 2
2				
3				FACU species15 x 4 =60
4				UPL species 0 x 5 = 0
5				Column Totals:(A)(B)
6				Prevalence Index = B/A =2.60
		= Total Cov	er	
50% of total cover: 20				Hydrophytic Vegetation Indicators:
	20% 01	total cover		1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft)		.,		X 2 - Dominance Test is >50%
1. Morella cerifera, Southern Bayberry				X 3 - Prevalence Index is ≤3.01
2				Problematic Hydrophytic Vegetation ¹ (Explain)
3				
4				¹ Indicators of hydric soil and wetland hydrology must
5				be present, unless disturbed or problematic.
				Definitions of Five Vegetation Strata:
		= Total Cov	er	
50% of total cover: 5				Tree – Woody plants, excluding woody vines,
	20% 01	total cover		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: 30 ft)				(Cooling of Larger in Claimoter at a reactive gire (2.211).
Arundinaria tecta, Switch Cane	40		FACW	Sapling – Woody plants, excluding woody vines,
2. <u>Carex Iurida, Shallow Sedge</u>	10	<u>No</u>		approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
3. <u>Ludwigia palustris, Marsh Primrose-Willow</u>	10	<u>No</u>	OBL_	than o m. (1.5 din) bbri.
4				Shrub – Woody plants, excluding woody vines,
5				approximately 3 to 20 ft (1 to 6 m) in height.
6				Herb - All herbaceous (non-woody) plants, including
7				herbaceous vines, regardless of size, and woody
8.				plants, except woody vines, less than approximately 3 ft (1 m) in height.
9.				3 it (1 m) in neight.
				Woody vine – All woody vines, regardless of height.
10				
11				
	60	= Total Cov	er	
50% of total cover: 30	20% of	total cover	12	
Woody Vine Stratum (Plot size: 30 ft)				
Smilax rotundifolia, Horsebrier	15	Yes	<u>FAC</u>	
2				
3.				
4				
5				l Hardward and the second and the se
·		= Total Cov		Hydrophytic Vegetation
500/ -51-1-1 7.5				Present? Yes x No No
50% of total cover: 7.5		total cover		
Remarks: (If observed, list morphological adaptations belo	w).			

Sampling Point: RD_W011_PFO

SOIL Sampling Point: RD_W011_PFO

	cription: (Describe	to the depti				or confir	n the absence of ir	ndicators.)
Depth (inches)	Matrix Color (moist)	<u></u> %	Redo Color (moist)	x Features %	Type ¹	Loc ²	Texture	Remarks
0-3	10YR 3/2	100%	O GIO! (IIIOIG)		1,00		Loam	Komarko
			IOVD 4/C	100/				
3-17	10YR 4/2		LOYR 4/6				Sandy clay loam	
17-20	10YR 5/1						Sandy clay loam	
								_
-								
1Tyme: C=C	oncentration, D=Dep	detion DM-I	Paduaad Matrix M	S-Maskad	Sand Cr	———	² Location: DL =	=Pore Lining, M=Matrix.
	Indicators: (Applic					all 15.		Problematic Hydric Soils ³ :
Histoso			Polyvalue Be			RRST		_
I —	pipedon (A2)		Thin Dark Su				· —	(A10) (LRR S)
Black H	istic (A3)		Loamy Muck					/ertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)		Loamy Gleye	ed Matrix (F2)			Floodplain Soils (F19) (LRR P, S, T)
ı —	d Layers (A5)		× Depleted Ma		· · · ·			Bright Loamy Soils (F20)
	Bodies (A6) (LRR P		Redox Dark Depleted Da	,	,		(MLRA 1	,
	ucky Mineral (A7) (LI resence (A8) (LRR L		Redox Depre		` '			t Material (TF2) ow Dark Surface (TF12)
ı —	uck (A9) (LRR P, T)	''	Marl (F10) (L	,	,			lain in Remarks)
	d Below Dark Surfac	e (A11)	Depleted Oc	•	(MLRA 1	51)		,
Thick D	ark Surface (A12)		Iron-Mangan	ese Masse	es (F12) (LRR O, P		s of hydrophytic vegetation and
_	rairie Redox (A16) (I		_			, U)		hydrology must be present,
	Mucky Mineral (S1) (I	LRR O, S)	Delta Ochric			0.8 4500		disturbed or problematic.
	Gleyed Matrix (S4) Redox (S5)		Reduced Ver				•	
_	d Matrix (S6)						RA 149A, 153C, 153	3D)
I — · ·	ırface (S7) (LRR P, \$	S, T, U)	_	J	,	, (, , , , , , , , , , , , , , , , , , , ,	•
Restrictive	Layer (if observed):	•						
Туре:								
Depth (in	ches):						Hydric Soil Pres	sent? Yes <u> </u>
Remarks:							•	

Date: 5/20/21

Feature Name: RD_W_011





Photograph Direction North

Comments:

Photograph Direction East

Comments:





Photograph Direction South

Comments:

Photograph Direction West

Comments:

Project/Site: Dominion CVOW	City/County: Chesapeak	ке	Sampling Date: 5/6/2021
Applicant/Owner: Dominion		State: <u>VA</u>	Sampling Point: EF UP 001
Investigator(s): Emily Foster, Debbie Painter	Section, Township, Rang	ge:	
Landform (hillslope, terrace, etc.): Flat	Local relief (concave, co	nvex, none): None	Slope (%): 0-5
Subregion (LRR or MLRA): MLRA 153A of LRRT Lat:			
Soil Map Unit Name: Tomotley-Nimmo complex, 0 to 1 percent slopes			
Are climatic / hydrologic conditions on the site typical for this time of y			,
Are Vegetationx, Soilx, or Hydrologyx significantly			
Are Vegetation, Soil, or Hydrology naturally pr	roblematic? (If nee	eded, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	g sampling point lo	cations, transect	s, important features, etc.
Hydrophytic Vegetation Present? Yes Nox			
Hydric Soil Present? Yes Nox	Is the Sampled A		
Wetland Hydrology Present? Yes No x	within a Wetland	d? Yes	No×
Remarks:	•		Observed Classifications:
Well drained field drained by a series of agricultural ditches. Fa	llow field/havfield.		Cowardin: upland
	,,		Cowardin. <u>upland</u>
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indic	cators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		Surface Soi	
Surface Water (A1) Aquatic Fauna (B:			egetated Concave Surface (B8)
High Water Table (A2) — Marl Deposits (B1			atterns (B10)
Saturation (A3) Hydrogen Sulfide		Moss Trim I	
	heres along Living Roots (Water Table (C2)
Sediment Deposits (B2) Presence of Redu		Crayfish Bu	
	ction in Tilled Soils (C6)		Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface	, ,		c Position (D2)
Iron Deposits (B5) Other (Explain in I		Shallow Aqu	. ,
Inundation Visible on Aerial Imagery (B7)	(cinario)	FAC-Neutra	, ,
Water-Stained Leaves (B9)		_	moss (D8) (LRR T, U)
Field Observations:		Opilagilaini	(20) (ERRY 1, 0)
Surface Water Present? Yes No _x _ Depth (inches	s):		
Water Table Present? Yes No _x Depth (inches			
Saturation Present? Yes No _x Depth (inches	,	land Hydrology Prese	ent? Yes Nox
(includes capillary fringe)			
Describe Recorded Data (stream gauge, monitoring well, aerial phot	tos, previous inspections),	, if available:	
Remarks:			
No hydric indicators.			
No flydfic fildicators.			
T. Control of the Con			

/EGETATION (Five Strata) – Use scientific nan	ico oi pic	arito.		Sampling Point: EF UP 001
		Dominant		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30 ft</u>) 1		Species?		Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
2				Total Number of Dominant Species Across All Strata: 0 (B)
4				Percent of Dominant Species
5 6				That Are OBL, FACW, or FAC: 0.0% (A/B)
	0 :	= Total Cov		Prevalence Index worksheet: Total % Cover of: Multiply by:
50% of total cover: 0	20% of	total cover:	0	OBL species 0 x 1 = 0
Sapling Stratum (Plot size: 30 ft)				FACW species 0 x 2 = 0
1				FAC species 25 x 3 = 75
2				FACU species 80 x 4 = 320
3				UPL species 0 x 5 = 0
4				Column Totals: 105 (A) 395 (B)
5				
6		= Total Cov		Prevalence Index = B/A =3.76
50% of total cover: 0				Hydrophytic Vegetation Indicators:
Shrub Stratum (Plot size: 30 ft)	20 70 01	total oover.		1 - Rapid Test for Hydrophytic Vegetation
1				2 - Dominance Test is >50%
				3 - Prevalence Index is ≤3.0¹
2 3				Problematic Hydrophytic Vegetation¹ (Explain)
4				¹ Indicators of hydric soil and wetland hydrology must
5				be present, unless disturbed or problematic.
6				Definitions of Five Vegetation Strata:
		= Total Cov		Tree – Woody plants, excluding woody vines,
50% of total cover: 0 <u>Herb Stratum</u> (Plot size: <u>30 ft</u>)	20% of	total cover:	0	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
1. <u>Trifolium repens, White Clover</u>	35		FACU	Sapling – Woody plants, excluding woody vines,
2. Lolium perenne, Perennial Rye Grass	45		<u>FACU</u>	approximately 20 ft (6 m) or more in height and less
3. Ranunculus sardous, Hairy Buttercup	25		<u>FAC</u>	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.				Herb – All herbaceous (non-woody) plants, including
7				herbaceous vines, regardless of size, and woody
8.				plants, except woody vines, less than approximately 3 ft (1 m) in height.
9				
10				Woody vine – All woody vines, regardless of height.
11.				
		= Total Cov	er	
50% of total cover: <u>52.5</u>	20% of	total cover:	21	
Woody Vine Stratum (Plot size: 30 ft)				
1				
2.				
3				
4				
5				l Hardana kardina
v	0 :	= Total Cov	 er	Hydrophytic Vegetation
E00/ -ft-t-1				Present? Yes Nox
50% of total cover: 0	/U% Ot	total cover.	()	

SOIL Sampling Point: EF UP 001

	cription: (Describe	to the depth				or confirm	the absence of	indicators.)
Depth (inches)	Matrix Color (moist)	%	Redo Color (moist)	ox Feature %	SType ¹ _	_Loc ²	Texture	Remarks
0-16	2.5y 5/1	100%	,				Silty loam	
	oncentration, D=Dep					ains.		=Pore Lining, M=Matrix.
-	Indicators: (Applic	able to all L			-			Problematic Hydric Soils ³ :
Histoso	' '		Polyvalue Be					k (A9) (LRR O)
	pipedon (A2) istic (A3)		Thin Dark St	, ,				k (A10) (LRR S) Vertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)		Loamy Gley	-		. •,		Floodplain Soils (F19) (LRR P, S, T)
Stratifie	d Layers (A5)		Depleted Ma	atrix (F3)			Anomalou	ıs Bright Loamy Soils (F20)
	Bodies (A6) (LRR P		Redox Dark	,	,		(MLRA	•
	ucky Mineral (A7) (Ll resence (A8) (LRR U		Depleted Da		` '			nt Material (TF2) Iow Dark Surface (TF12)
ı —	uck (A9) (LRR P, T))	Marl (F10) (I		0)			plain in Remarks)
ı —	d Below Dark Surfac	e (A11)	Depleted Oc		(MLRA 1	51)		,
ı —	ark Surface (A12)		Iron-Mangar					ors of hydrophytic vegetation and
	rairie Redox (A16) (I					, U)		d hydrology must be present,
ı —	Mucky Mineral (S1) (I Gleyed Matrix (S4)	-RR (), (S)	Delta Ochric			NA 150B)	uniess	disturbed or problematic.
	Redox (S5)		Piedmont Flo				9A)	
Stripped	d Matrix (S6)		Anomalous I	Bright Loar	my Soils (F20) (MLR	A 149A, 153C, 15	53D)
	ırface (S7) (LRR P, \$							
	Layer (if observed):							
"	-h \		_					
	ches):						Hydric Soil Pre	esent? Yes Nox
Remarks:								

Photograph Log

Date: 5/6/21 Feature Name: EF_UP_001



Photograph Number ______ Photograph Direction South

Comments:



Photograph Number ______
Photograph Direction North

Comments:



Photograph Number ______Photograph Direction East

Comments:



Photograph Number ______Photograph Direction West_____

Comments:

Project/Site: Dominion CVOW	City/County: Virginia Beach	/Virginia Beach	Sampling Date: 5/13/2021
Applicant/Owner: Dominion		State: VA	Sampling Point: EF 002 UP
Investigator(s): Emily Foster	Section, Township, Range: _		
Landform (hillslope, terrace, etc.): Flat			
Subregion (LRR or MLRA): MLRA 153B of LRR T Lat:			
Soil Map Unit Name: Nimmo loam			
Are climatic / hydrologic conditions on the site typical for this time of you			
Are Vegetationx, Soilx, or Hydrologyx significantly			
Are Vegetation, Soil, or Hydrology naturally pr		, explain any answe	
SUMMARY OF FINDINGS – Attach site map showing		•	ŕ
Hydrophytic Vegetation Present? Yes Nox			
Hydric Soil Present? Yesx No	is the Sampled Area		N- V
Wetland Hydrology Present? Yes Nox	within a Wetland?	Yes	Nox
Remarks:			Observed Classifications:
			Cowardin: <u>Upland</u>
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indica	ators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		Surface Soil	Cracks (B6)
Surface Water (A1) Aquatic Fauna (B1		Sparsely Veg	getated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B1		Drainage Pa	tterns (B10)
Saturation (A3) Hydrogen Sulfide		Moss Trim Li	
	neres along Living Roots (C3)		Water Table (C2)
Sediment Deposits (B2) Presence of Redu	, ,	Crayfish Bur	, ,
	ction in Tilled Soils (C6)		isible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface	, ,		Position (D2)
Iron Deposits (B5) Other (Explain in F	Remarks)	Shallow Aqu	
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral	
Water-Stained Leaves (B9)		Sphagnum n	noss (D8) (LRR T, U)
Field Observations:			
Surface Water Present? Yes No _x Depth (inches			
Water Table Present? Yes Nox Depth (inches			
Saturation Present? Yes No _x Depth (inches (includes capillary fringe)	i): Wetland	Hydrology Preser	nt? Yes Nox
Describe Recorded Data (stream gauge, monitoring well, aerial phot	os, previous inspections), if a	vailable:	
Remarks:			
İ			

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

	Absolute Do	minant li	ndicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30 ft</u>)	% Cover S	oecies?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC:0 (A)
2				Total Number of Dominant
3				Species Across All Strata: 2 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:0.0% (A/B)
6				Barrel and the state of
	0 = T	otal Cove	r	Prevalence Index worksheet:
50% of total cover: 0	20% of tota	al cover: _	0	Total % Cover of: Multiply by:
Sapling Stratum (Plot size: 30 ft)				OBL species10 x 1 =10
1				FACW species0 x 2 =0
2.				FAC species0 x 3 =0
3.				FACU species65 x 4 =260
4.				UPL species0 x 5 =0
5				Column Totals:75 (A)270 (B)
6				2.60
·	0 = T			Prevalence Index = B/A =3.60
50% of total cover: 0				Hydrophytic Vegetation Indicators:
	20% 01 101	ai cover		1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft)				2 - Dominance Test is >50%
1				3 - Prevalence Index is ≤3.0¹
2				Problematic Hydrophytic Vegetation¹ (Explain)
3				
4				¹ Indicators of hydric soil and wetland hydrology must
5				be present, unless disturbed or problematic.
6				Definitions of Five Vegetation Strata:
	= T	otal Cove	r	Tree – Woody plants, excluding woody vines,
50% of total cover: 0	20% of tota	al cover: _	0	approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: 30 ft)				(7.6 cm) or larger in diameter at breast height (DBH).
1. Lolium perenne, Perennial Rye Grass	30	Yes	FACU	Sapling – Woody plants, excluding woody vines,
2. Anthoxanthum odoratum, Large Sweet Vernal Grass	30	Yes	FACU	approximately 20 ft (6 m) or more in height and less
3. Juncus effusus, Lamp Rush	5	No	OBL	than 3 in. (7.6 cm) DBH.
4. Apocynum cannabinum, Indian-Hemp	5	No	FACU	Shrub – Woody plants, excluding woody vines,
5. Juncus articulatus, Joint-Leaf Rush	_	No	OBL	approximately 3 to 20 ft (1 to 6 m) in height.
6.				Herb – All herbaceous (non-woody) plants, including
7.				herbaceous vines, regardless of size, and woody
8				plants, except woody vines, less than approximately
9				3 ft (1 m) in height.
				Woody vine - All woody vines, regardless of height.
10				
11				
	<u>75</u> = T			
50% of total cover: 37.5	20% of tota	al cover: _	15	
Woody Vine Stratum (Plot size: 30 ft)				
1				
2				
3				
4				
5				Hydrophytic
	0 = T	otal Cove	r	Vegetation
50% of total cover:0	20% of tota	al cover: _	0	Present?
Remarks: (If observed, list morphological adaptations belo	w).			
· · ·				

Sampling Point: EF 002 UP

SOIL Sampling Point: EF 002 UP

. ,	to the dept	h needed to docu			or confirm	the absence of i	ndicators.)
Depth Matrix (inches) Color (moist)	<u>%</u>	Redo Color (moist)	ox Features	Type ¹	Loc ²	Texture	Remarks
0-6 10yr 4/3	100%					Sandy loam	
6-12 10 yr 4/2	95%	10yr 5/6	5%			Sandy loam	
12-18 10yr 5/2	90%	10yr 5/6	10%			Sandy loam	
¹ Type: C=Concentration, D=Depl Hydric Soil Indicators: (Applica					ains.		=Pore Lining, M=Matrix. Problematic Hydric Soils ³ :
 Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, 5 cm Mucky Mineral (A7) (LR Muck Presence (A8) (LRR U) 1 cm Muck (A9) (LRR P, T) Depleted Below Dark Surface Thick Dark Surface (A12) Coast Prairie Redox (A16) (M Sandy Mucky Mineral (S1) (L Sandy Gleyed Matrix (S4) 	RR P, T, U)) = (A11) ILRA 150A	Polyvalue Both Thin Dark Some Loamy Muck Loamy Gley Depleted Mark Redox Dark Depleted Dark Redox Deproment Marl (F10) (Incompleted October 100 Surface Delta Ochrica Reduced Ve	urface (S9) ky Mineral (led Matrix (I latrix (F3) Surface (F lark Surface lessions (F8 LRR U) chric (F11) lesse Masse lace (F13) (le (F17) (ML	(LRR S, F1) (LRR F2) 6) (F7) 8) (MLRA 15 es (F12) (I LRR P, T RA 151)	T, U) O) 51) LRR O, P,	2 cm Muck Reduced \ Piedmont Anomalou (MLRA 1 Red Parer Very Shall Other (Exp	(A10) (LRR S) /ertic (F18) (outside MLRA 150A,B) Floodplain Soils (F19) (LRR P, S, T) s Bright Loamy Soils (F20)
Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S Restrictive Layer (if observed):		Piedmont FI			•	A 149A, 153C, 15	3D)
Type:							
Depth (inches):Remarks:						Hydric Soil Pre	esent? Yesx No
Reduced soils but no hydrology	y indicator	s. Very dry and cr	umbly.				

Date: <u>5/13/21</u>

Feature Name: EF_EF_002_UP



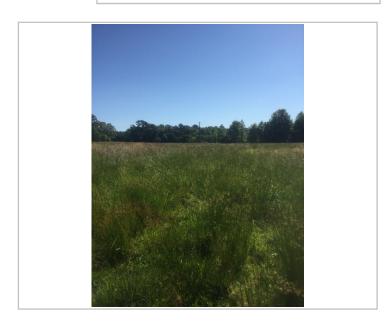


Photograph Direction North

Comments: None.



Comments: None.





Photograph Direction East

Comments:

None.

Photograph Direction West

Comments:

Project/Site: Dominion CVOW	City/County: Virginia Be	each/Virginia Beach	Sampling Date: 5/13/2021
Applicant/Owner: Dominion		State: <u>VA</u>	Sampling Point: EF 003 UP
Investigator(s): Emily Foster, RJ Brydon	Section, Township, Ran	nge:	
Landform (hillslope, terrace, etc.): Flat			
Subregion (LRR or MLRA): MLRA 153B of LRR T Lat:			
Soil Map Unit Name: Nimmo loam			
Are climatic / hydrologic conditions on the site typical for this time of ye			
Are Vegetation, Soil, or Hydrology significantly			
Are Vegetation, Soil, or Hydrology naturally pr		eded, explain any answer	
SUMMARY OF FINDINGS – Attach site map showing			•
Liverage to Variotica Process 2			
Hydrophytic Vegetation Present? Yes _ x _ No Hydric Soil Present? Yes _ x _ No	is the Sampled		
Wetland Hydrology Present? Yes No x	within a Wetland	d? Yes	Nox
Remarks:			Observed Classifications:
Upland forest drained by abandoned agricultural ditchhes. Posi	tive for soils and vegeta	ation, but no	Cowardin: upland
indicators for hydrology. Extremely large oak and beech trees s	cattered throughout, 3	36+ inches dbh.	eswaram. <u>aprarra</u>
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indica	tors (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		Surface Soil	Cracks (B6)
Surface Water (A1) Aquatic Fauna (B1			getated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B1)		Drainage Pat	
Saturation (A3) Hydrogen Sulfide		Moss Trim Li	, ,
	neres along Living Roots		Water Table (C2)
Sediment Deposits (B2) Presence of Redu		Crayfish Burr	, ,
Drift Deposits (B3) Recent Iron Reduc	ction in Tilled Soils (C6)	Saturation Vi	sible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface	⇒ (C7)	Geomorphic	Position (D2)
Iron Deposits (B5) Other (Explain in F	Remarks)	Shallow Aqui	tard (D3)
Inundation Visible on Aerial Imagery (B7)		_x_ FAC-Neutral	Test (D5)
Water-Stained Leaves (B9)		Sphagnum m	noss (D8) (LRR T, U)
Field Observations:			
Surface Water Present? Yes Nox Depth (inches	s):		
Water Table Present? Yes Nox _ Depth (inches	s):		
Saturation Present? Yes Nox Depth (inches	s): Wet	tland Hydrology Presen	t? Yes Nox
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial phot	os, previous inspections)	, if available:	
Remarks:			
No saturation or hydrollogy indicators.			

_	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft)		Species?		Number of Dominant Species
Quercus michauxii, Swamp Chestnut Oak	40	Yes	FACW	That Are OBL, FACW, or FAC:6 (A)
2. Fagus grandifolia, American Beech	40	Yes	_FACU_	Total Number of Dominant
3. <u>Liquidambar styraciflua, Sweet-Gum</u>	15	No	FAC	Species Across All Strata: 7 (B)
4.				(S)
				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 85.7% (A/B)
6				Prevalence Index worksheet:
	95	= Total Cov	/er	
50% of total cover: <u>47.5</u>	20% of	f total cover	:19	Total % Cover of: Multiply by:
Sapling Stratum (Plot size: 30 ft)				OBL species 0 x 1 = 0
1. Asimina triloba, Common Pawpaw	10	Yes	FAC	FACW species 100 x 2 = 200
2. Acer rubrum, Red Maple		Yes		FAC species35 x 3 =105
Vaccinium corymbosum, Highbush Blueberry				FACU species40 x 4 =160
			FACVV	UPL species0 x 5 =0
4				Column Totals: <u>175</u> (A) <u>465</u> (B)
5				Column Totals:(A)(B)
6				Prevalence Index = B/A =2.66
		= Total Cov		Hydrophytic Vegetation Indicators:
50% of total cover:10	20% of	f total cover	. 4	
Shrub Stratum (Plot size: 30 ft)		10101 00101		1 - Rapid Test for Hydrophytic Vegetation
				x 2 - Dominance Test is >50%
1				x 3 - Prevalence Index is ≤3.0¹
2				Problematic Hydrophytic Vegetation¹ (Explain)
3				
4				¹ Indicators of hydric soil and wetland hydrology must
5				be present, unless disturbed or problematic.
				Definitions of Five Vegetation Strata:
6				Deminions of Five Vegetation Strata.
		= Total Cov		Tree – Woody plants, excluding woody vines,
50% of total cover:0	20% of	f total cover	:0	approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: 30 ft)				(7.6 cm) or larger in diameter at breast height (DBH).
1. Arundinaria gigantea, Giant Cane	55	Yes	FACW	Sapling – Woody plants, excluding woody vines,
2.				approximately 20 ft (6 m) or more in height and less
3.				than 3 in. (7.6 cm) DBH.
				Shrub – Woody plants, excluding woody vines,
4				approximately 3 to 20 ft (1 to 6 m) in height.
5				
6				Herb – All herbaceous (non-woody) plants, including
7				herbaceous vines, regardless of size, <u>and</u> woody plants, except woody vines, less than approximately
8				3 ft (1 m) in height.
9				
10				Woody vine - All woody vines, regardless of height.
11				
	55	= Total Co	/er	
50% of total cover: <u>27.5</u>	20% of	ftotal cover	:11	
Woody Vine Stratum (Plot size: 30 ft)				
1. Smilax rotundifolia, Horsebrier	5	Yes	<u>FAC</u>	
2.				
3				
4				
5				Hydrophytic
	5	= Total Cov	/er	Vegetation Vegetation
50% of total cover: 2.5	20% of	f total cover	:1	Present? Yes <u>*</u> No
Remarks: (If observed, list morphological adaptations belo	w).			<u> </u>
,	,			

Sampling Point: EF 003 UP

SOIL Sampling Point: EF 003 UP

Depth	Matrix	io ino dop		ox Features		or commi	tne absence	of indicators.)
(inches)	Color (moist)	%	Color (moist)			Loc ²	Texture	Remarks
0-8	10yr 3/2	100%					Loam	
8-12	10yr 4/2	100%					Clay loam	
12-18	10yr 4/2	90%	10yr 4/6	10%			Clay loam	
¹ Type: C=C	Concentration, D=Dep	letion, RM	=Reduced Matrix, M	S=Masked	Sand Gra	ains.	² Location:	PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applic	able to all	LRRs, unless othe	rwise note	ed.)		Indicators	for Problematic Hydric Soils ³ :
Histoso	, ,		Polyvalue Be					Muck (A9) (LRR O)
	pipedon (A2) listic (A3)		Thin Dark St	, ,				fuck (A10) (LRR S) ed Vertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)		Loamy Gley	-		0,		ont Floodplain Soils (F19) (LRR P, S, T)
	d Layers (A5)		x Depleted Ma		ĺ			lous Bright Loamy Soils (F20)
	Bodies (A6) (LRR P		Redox Dark	`	,		•	RA 153B)
	ucky Mineral (A7) (LF resence (A8) (LRR U		Depleted Da Redox Depre		. ,		_	arent Material (TF2) hallow Dark Surface (TF12)
	uck (A9) (LRR P, T)	,	Marl (F10) (I	,	5)			Explain in Remarks)
Deplete	d Below Dark Surface	e (A11)	Depleted Oc		(MLRA 1	51)		,
	ark Surface (A12)		Iron-Mangar					ators of hydrophytic vegetation and
	Prairie Redox (A16) (N Mucky Mineral (S1) (L					, U)		land hydrology must be present, ess disturbed or problematic.
	Gleyed Matrix (S4)	o, o,	Reduced Ve			0A, 150B)	unik	oss disturbed of problematic.
	Redox (S5)		Piedmont Fl				(A)	
Januy	, ,				, ,	•	,	
Strippe	d Matrix (S6)		Anomalous I	Bright Loar	, ,	•	-	, 153D)
Strippe Dark St	d Matrix (S6) urface (S7) (LRR P, S		Anomalous I	Bright Loar	, ,	•	-	, 153D)
Strippe Dark Strictive	d Matrix (S6) urface (S7) (LRR P, S Layer (if observed):		Anomalous I	Bright Loar	, ,	•	-	, 153D)
Stripped Dark Strictive Type:	d Matrix (S6) urface (S7) (LRR P, S Layer (if observed):		Anomalous I	Bright Loar	, ,	•	149A, 153C	
Stripped Dark Strictive Type:	d Matrix (S6) urface (S7) (LRR P, S Layer (if observed):		Anomalous I	Bright Loar	, ,	•	149A, 153C	
Stripper Dark Stripper Type: Depth (in	d Matrix (S6) urface (S7) (LRR P, S Layer (if observed):				ny Soils (I	F20) (MLR A	149A, 153C,	Present? Yes × No
Stripper Dark Stripper Type: Depth (in	d Matrix (S6) urface (S7) (LRR P, S Layer (if observed):				ny Soils (I	F20) (MLR A	149A, 153C,	Present? Yes × No
Stripper Dark Stripper Type: Depth (in	d Matrix (S6) urface (S7) (LRR P, S Layer (if observed):				ny Soils (I	F20) (MLR A	149A, 153C,	Present? Yes × No
Stripper Dark Stripper Type: Depth (in	d Matrix (S6) urface (S7) (LRR P, S Layer (if observed):				ny Soils (I	F20) (MLR A	149A, 153C,	Present? Yes <u>×</u> No
Stripper Dark Stripper Type: Depth (in	d Matrix (S6) urface (S7) (LRR P, S Layer (if observed):				ny Soils (I	F20) (MLR A	149A, 153C,	Present? Yes <u>×</u> No
Stripper Dark Stripper Type: Depth (in	d Matrix (S6) urface (S7) (LRR P, S Layer (if observed):				ny Soils (I	F20) (MLR A	149A, 153C,	Present? Yes × No
Stripper Dark Stripper Type: Depth (in	d Matrix (S6) urface (S7) (LRR P, S Layer (if observed):				ny Soils (I	F20) (MLR A	149A, 153C,	Present? Yes <u>×</u> No
Stripper Dark Stripper Restrictive Type: Depth (in	d Matrix (S6) urface (S7) (LRR P, S Layer (if observed):				ny Soils (I	F20) (MLR A	149A, 153C,	Present? Yes <u>×</u> No
Stripper Dark Stripper Type: Depth (in	d Matrix (S6) urface (S7) (LRR P, S Layer (if observed):				ny Soils (I	F20) (MLR A	149A, 153C,	Present? Yes <u>×</u> No
Stripper Dark Stripper Restrictive Type: Depth (in	d Matrix (S6) urface (S7) (LRR P, S Layer (if observed):				ny Soils (I	F20) (MLR A	149A, 153C,	Present? Yes <u>×</u> No
Stripper Dark Stripper Restrictive Type: Depth (in	d Matrix (S6) urface (S7) (LRR P, S Layer (if observed):				ny Soils (I	F20) (MLR A	149A, 153C,	Present? Yes <u>×</u> No
Stripper Dark Stripper Type: Depth (in	d Matrix (S6) urface (S7) (LRR P, S Layer (if observed):				ny Soils (I	F20) (MLR A	149A, 153C,	Present? Yes × No
Stripper Dark Stripper Type: Depth (in	d Matrix (S6) urface (S7) (LRR P, S Layer (if observed):				ny Soils (I	F20) (MLR A	149A, 153C,	Present? Yes × No
Stripper Dark Stripper Type: Depth (in	d Matrix (S6) urface (S7) (LRR P, S Layer (if observed):				ny Soils (I	F20) (MLR A	149A, 153C,	Present? Yes <u>×</u> No
Stripper Dark Stripper Type: Depth (in	d Matrix (S6) urface (S7) (LRR P, S Layer (if observed):				ny Soils (I	F20) (MLR A	149A, 153C,	Present? Yes <u>×</u> No
Stripper Dark Stripper Type: Depth (in	d Matrix (S6) urface (S7) (LRR P, S Layer (if observed):				ny Soils (I	F20) (MLR A	149A, 153C,	Present? Yes <u>×</u> No
Stripper Dark Stripper Type: Depth (in	d Matrix (S6) urface (S7) (LRR P, S Layer (if observed):				ny Soils (I	F20) (MLR A	149A, 153C,	Present? Yes × No
Stripper Dark Stripper Restrictive Type: Depth (in	d Matrix (S6) urface (S7) (LRR P, S Layer (if observed):				ny Soils (I	F20) (MLR A	149A, 153C,	Present? Yes <u>×</u> No
Stripped Dark Strictive Type: Depth (in	d Matrix (S6) urface (S7) (LRR P, S Layer (if observed):				ny Soils (I	F20) (MLR A	149A, 153C,	Present? Yes <u>×</u> No

Date: <u>5/13/21</u>

Feature Name: EF_003_UP





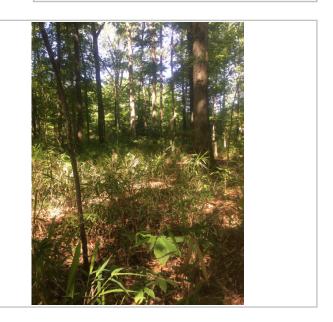
Photograph Direction North

Comments: None.

Photograph Direction South

Comments: None.





Photograph Direction East

Comments:

None.

Photograph Direction West

Comments: None.

Project/Site: Dominion CVOW	City/County: Virginia Beach/	Virginia Beach	Sampling Date:5/13/202
Applicant/Owner: Dominion		State: VA	Sampling Point: EF_004_UP
Investigator(s): Emily Foster, RJ Brydon	Section, Township, Range:		
Landform (hillslope, terrace, etc.): Flat			
Subregion (LRR or MLRA): MLRA 153B of LRR T Lat:			
Are climatic / hydrologic conditions on the site typical for this time of ye			
Are Vegetationx, Soilx, or Hydrologyx significantly			
Are Vegetation, Soil, or Hydrology naturally pr		explain any answer	
SUMMARY OF FINDINGS – Attach site map showing		ons, transects,	, important features, etc
Hydrophytic Vegetation Present? Yes Nox			
Hydric Soil Present? Yes No x	Is the Sampled Area		
Wetland Hydrology Present? Yes No x	within a Wetland?	Yes	Nox
Remarks:			Observed Classifications:
Well drained upand ag. field. No living vegetation.			Cowardin: upland
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indicat	tors (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		Surface Soil (Cracks (B6)
Surface Water (A1) Aquatic Fauna (B1	3)	Sparsely Veg	etated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B1:		Drainage Pat	
Saturation (A3) Hydrogen Sulfide		Moss Trim Lir	nes (B16)
	neres along Living Roots (C3)	Dry-Season V	Water Table (C2)
Sediment Deposits (B2) Presence of Redu	ced Iron (C4)	Crayfish Burr	ows (C8)
Drift Deposits (B3) Recent Iron Reduc	ction in Tilled Soils (C6)	Saturation Vis	sible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface	: (C7)	Geomorphic I	Position (D2)
Iron Deposits (B5) Other (Explain in F	Remarks)	Shallow Aquit	tard (D3)
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral	Test (D5)
Water-Stained Leaves (B9)		Sphagnum m	oss (D8) (LRR T, U)
Field Observations:			
Surface Water Present? Yes Nox Depth (inches	i):		
Water Table Present? Yes Nox Depth (inches	i):		
Saturation Present? Yes No _x Depth (inches	i): Wetland H	Hydrology Present	t? Yes Nox
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial phot	l os, previous inspections), if ava	ailable:	
Remarks:			
†			

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

_	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft) 1)	% Cover Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC:0 (A)
2		Total Number of Dominant Species Across All Strata: 0 (B)
4		Percent of Dominant Species
5		That Are OBL, FACW, or FAC: 0.0% (A/B)
0.	= Total Cover	Prevalence Index worksheet:
50% of total cover:	20% of total cover: 0	Total % Cover of: Multiply by:
Sapling Stratum (Plot size: 30 ft)	20 70 Of total cover	OBL species0 x 1 =0
1		FACW species0 x 2 =0
		FAC species0 x 3 =0
2		FACU species0 x 4 =0
3		UPL species0 x 5 =0
4		Column Totals:0 (A)0 (B)
5		
6	0 = Total Cover	Prevalence Index = B/A =0.00
500/ oftatal assume 0		Hydrophytic Vegetation Indicators:
	20% of total cover:0	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft)		2 - Dominance Test is >50%
1		3 - Prevalence Index is ≤3.0¹
2		Problematic Hydrophytic Vegetation¹ (Explain)
3		
4		Indicators of hydric soil and wetland hydrology must
5		be present, unless disturbed or problematic.
6		Definitions of Five Vegetation Strata:
	0 = Total Cover	Tree – Woody plants, excluding woody vines,
50% of total cover: 0 Herb Stratum (Plot size: 30 ft)	20% of total cover:0	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
1		Sapling – Woody plants, excluding woody vines,
2.		approximately 20 ft (6 m) or more in height and less
3.		than 3 in. (7.6 cm) DBH.
4.		Shrub – Woody plants, excluding woody vines,
5		approximately 3 to 20 ft (1 to 6 m) in height.
6		Herb – All herbaceous (non-woody) plants, including
7.		herbaceous vines, regardless of size, and woody
		plants, except woody vines, less than approximately
8		3 ft (1 m) in height.
9		Woody vine - All woody vines, regardless of height.
10		
11		
500/ 51-1 1	0 = Total Cover	
	20% of total cover: 0	
Woody Vine Stratum (Plot size: 30 ft)		
1		
2		
3		
4		
5		Hydrophytic
	0 = Total Cover	Vegetation
	20% of total cover:0	103 NO
Remarks: (If observed, list morphological adaptations below	w).	
No living vegetation. Upland fallow ag. field.		

Sampling Point: EF 004 UP

SOIL Sampling Point: EF 004 UP

Profile Des	cription: (Describe	to the depth	needed to docu	ment the i	ndicator	or confirm	the absence of ir	ndicators.)	
Depth (inches)	Matrix Color (moist)	 _	Color (moist)	x Feature: %	S Type ¹	Loc ²	Texture	Remar	ke.
(inches) 0-18	7.5yr 3/2	100%	Color (Illoist)		Туре			Kemai	<u></u>
	7.5y1 5/2	100%					Silty loam		
¹Type: C=C	concentration, D=Dep	letion RM=Re	educed Matrix M	- ——— S=Masker	Sand Gr	ains	² Location: PL=	Pore Lining, M=N	1atrix
	Indicators: (Applic							Problematic Hyd	
Histoso	I (A1)		Polyvalue Be	elow Surfa	ce (S8) (L	.RR S, T, U) 1 cm Muck	(A9) (LRR O)	
Histic E	pipedon (A2)		Thin Dark Su	urface (S9)	(LRR S,	T, U)	2 cm Muck	(A10) (LRR S)	
	listic (A3)		Loamy Muck	-		(O)			de MLRA 150A,B)
	en Sulfide (A4) d Layers (A5)		Loamy Gleye		(F2)			loodplain Soils (F Bright Loamy So	(19) (LRR P, S, T)
ı —	: Bodies (A6) (LRR P	. T. U)	Depleted Ma Redox Dark		6)		(MLRA 1		iis (F20)
	ucky Mineral (A7) (LF		Depleted Da	,	,		•	: Material (TF2)	
	resence (A8) (LRR U		Redox Depre	essions (F	8)		Very Shallo	w Dark Surface (TF12)
_	uck (A9) (LRR P, T)		Marl (F10) (I				Other (Exp	ain in Remarks)	
	d Below Dark Surfac	e (A11)	Depleted Oc				_ 3		
_	ark Surface (A12) Prairie Redox (A16) (I	AL DA 150A)	Iron-Mangan Umbric Surfa					s of hydrophytic v hydrology must b	
	Mucky Mineral (S1) (I		Delta Ochric			, 0,		listurbed or proble	
	Gleyed Matrix (S4)	, ,	Reduced Ve			0A, 150B)		·	
Sandy I	Redox (S5)		Piedmont Flo						
I — · ·	d Matrix (S6)		Anomalous I	Bright Loar	my Soils (F20) (MLR/	A 149A, 153C, 153	iD)	
	urface (S7) (LRR P, S						Г		
_	Layer (if observed):								
	nches):		_				Hydric Soil Pres	sent? Yes	Nox
Remarks:							Tiyano con Tro		
Tromants.									

Date: <u>5/13/21</u>

Feature Name: EF_004_UP





Photograph Direction North

Comments: None.

Photograph Direction South

Comments: None.





Photograph Direction East

Comments:

None.

Photograph Direction West

Comments: None.

Project/Site: Dominion CVOW	City/County: Virginia Beach/	'Virginia Beach	Sampling Date: 5/13/2021
Applicant/Owner: Dominion		State: VA	Sampling Point: EF_005_UP
Investigator(s): Emily Foster, RJ Brydon	Section, Township, Range: _		
Landform (hillslope, terrace, etc.): Flat			
Subregion (LRR or MLRA): MLRA 153B of LRR T Lat:			
Are climatic / hydrologic conditions on the site typical for this time of y			
Are Vegetationx, Soilx, or Hydrologyx significantly			
Are Vegetation, Soil, or Hydrology naturally pr		explain any answe	
SUMMARY OF FINDINGS – Attach site map showing			·
			,
Hydrophytic Vegetation Present? Yesx No	Is the Sampled Area		
Hydric Soil Present? Yes Nox	within a Wetland?	Yes	No×
Wetland Hydrology Present? Yes Nox			
Fallow field, well drained			Observed Classifications:
railow field, well draffied			Cowardin: <u>upand</u>
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indica	ators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		Surface Soil	Cracks (B6)
Surface Water (A1) Aquatic Fauna (B ²	3)		getated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B1		Drainage Pa	
Saturation (A3) Hydrogen Sulfide		Moss Trim Li	
Water Marks (B1) Oxidized Rhizospl	neres along Living Roots (C3)	Dry-Season	Water Table (C2)
Sediment Deposits (B2) Presence of Redu	ced Iron (C4)	Crayfish Burn	rows (C8)
Drift Deposits (B3) Recent Iron Reduc	ction in Tilled Soils (C6)	Saturation Vi	isible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface	(C7)	Geomorphic	Position (D2)
Iron Deposits (B5) Other (Explain in f	Remarks)	Shallow Aqui	itard (D3)
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral	Test (D5)
Water-Stained Leaves (B9)		Sphagnum n	noss (D8) (LRR T, U)
Field Observations:			
Surface Water Present? Yes No _x Depth (inches			
Water Table Present? Yes Nox Depth (inches			
Saturation Present? Yes Nox Depth (inches (includes capillary fringe)	i): Wetland	Hydrology Presen	nt? Yes Nox
Describe Recorded Data (stream gauge, monitoring well, aerial phot	os, previous inspections), if av	ailable:	
Remarks:			

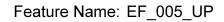
_	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC:3 (A)
2				Total Number of Dominant
3				Species Across All Strata: 4 (B)
4.				
				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:75.0% (A/B)
6				Prevalence Index worksheet:
		= Total Cov		Total % Cover of: Multiply by:
50% of total cover: 0	20% o	f total cover	:0	OBL species x 1 = 20
Sapling Stratum (Plot size: 30 ft)				
1				FACW species 0 x 2 = 0
2				FAC species45 x 3 =135
3.				FACU species35 x 4 =140
				UPL species0 x 5 =0
4				Column Totals:100 (A)295 (B)
5				
6				Prevalence Index = B/A =2.95
		= Total Cov		Hydrophytic Vegetation Indicators:
50% of total cover:0	20% o	f total cover	0	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft)				X 2 - Dominance Test is >50%
1				x 3 - Prevalence Index is ≤3.01
2				Problematic Hydrophytic Vegetation¹ (Explain)
3.				Problematic Hydrophytic Vegetation (Explain)
4				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5				
6				Definitions of Five Vegetation Strata:
	0	= Total Cov	er	Tree – Woody plants, excluding woody vines,
50% of total cover: 0	20% o	f total cover	0	approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: 30 ft)				(7.6 cm) or larger in diameter at breast height (DBH).
1. Juncus tenuis, Lesser Poverty Rush	25	Yes	FAC	Sapling – Woody plants, excluding woody vines,
2. Anthoxanthum odoratum, Large Sweet Vernal Grass				approximately 20 ft (6 m) or more in height and less
Ranunculus sardous, Hairy Buttercup		Yes		than 3 in. (7.6 cm) DBH.
				Chrub Mandy plants avalyding woody vines
4. Juncus articulatus, Joint-Leaf Rush		<u>Yes</u>		Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
5. Solidago canadensis, Canadian Goldenrod		No	<u>FACU</u>	
6				Herb – All herbaceous (non-woody) plants, including
7				herbaceous vines, regardless of size, <u>and</u> woody plants, except woody vines, less than approximately
8				3 ft (1 m) in height.
9				
10				Woody vine - All woody vines, regardless of height.
11				
		= Total Cov		
50% of total cover: 50	20% o	f total cover	20	
Woody Vine Stratum (Plot size: 30 ft)				
1				
2				
3.				
4				
5				
				Hydrophytic
	0	= Total Cov		Vegetation
50% of total cover:0	0	= Total Cov		
	0 20% o	= Total Cov		Vegetation
50% of total cover: 0	0 20% o	= Total Cov		Vegetation

Sampling Point: EF 005 UP

SOIL Sampling Point: EF 005 UP

Profile Des	cription: (Describe	to the depth r	needed to docui	ment the i	ndicator	or confirm	the absence of	f indicators.)
Depth (inches)	Matrix Color (moist)	——————————————————————————————————————	Redo	x Features %	-		Toytura	Remarks
(inches)			Color (moist)		Type'	Loc	<u>Texture</u>	Remarks
0-18	10yr 3/2	100%					Loam	
	· 							
	concentration, D=Dep					ains.	² Location: P	PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Application	able to all LR	Rs, unless othe	rwise note	ed.)		Indicators fo	or Problematic Hydric Soils ³ :
Histoso	I (A1)		Polyvalue Be	elow Surfac	ce (S8) (L	RR S, T, U) 1 cm Mu	ick (A9) (LRR O)
_	pipedon (A2)		Thin Dark Su	, ,				ick (A10) (LRR S)
ı —	listic (A3)	-	Loamy Muck	-		O)		d Vertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)		Loamy Gley		F2)			nt Floodplain Soils (F19) (LRR P, S, T)
ı —	d Layers (A5)	T III	Depleted Ma		(C)			ous Bright Loamy Soils (F20)
	: Bodies (A6) (LRR P , ucky Mineral (A7) (LF		Redox Dark Depleted Da	-	-			A 153B) ent Material (TF2)
1	resence (A8) (LRR U		Redox Depre					allow Dark Surface (TF12)
I —	uck (A9) (LRR P, T)		Marl (F10) (I	`	-,			Explain in Remarks)
_	d Below Dark Surface	e (A11)	Depleted Oc	•	(MLRA 1	51)	`	,
Thick D	ark Surface (A12)		Iron-Mangan	ese Masse	es (F12) (I	LRR O, P,	T) ³Indicat	tors of hydrophytic vegetation and
	Prairie Redox (A16) (N					, U)		nd hydrology must be present,
ı —	Mucky Mineral (S1) (L	.RR O, S)	Delta Ochric	. , .			unles	s disturbed or problematic.
	Gleyed Matrix (S4)		Reduced Ve					
ı —	Redox (S5) d Matrix (S6)		Piedmont Floor Anomalous B		. ,	•	•	152D)
I — · · ·	urface (S7) (LRR P, S	_	Anomaious i	origini Loai	ily Solis (i	-20) (WILK)	4 145A, 155C, 1	1330)
	Layer (if observed):							
Type:								
	nches):		_				Hydric Soil P	resent? Yes Nox
Remarks:			_				nyuna san i	1030111. 103 110
Nomaiks.								
1								

Date: <u>5/13/21</u>







Photograph Direction North

Comments: None.

Photograph Direction South

Comments: None.





Photograph Direction East

Comments:

None.

Photograph Direction West

Comments: None.

Project/Site: Dominion CVOW	City/County: Virginia Beach	/Virginia Beach	Sampling Date: 5/13/2021
Applicant/Owner: Dominion		State: VA	Sampling Point: EF_006_UP
Investigator(s): Emily Foster, RJ Brydon	Section, Township, Range:		
Landform (hillslope, terrace, etc.): Flat			
Subregion (LRR or MLRA): MLRA 153B of LRR T Lat:			
Soil Map Unit Name: Tomotley loam			
Are climatic / hydrologic conditions on the site typical for this time of y			
Are Vegetation, Soilx, or Hydrology significantly			
Are Vegetation, Soil, or Hydrology naturally pr		, explain any answe	
SUMMARY OF FINDINGS – Attach site map showing			,
Understantia Variation Present			
Hydrophytic Vegetation Present?	is the Sampled Area		
Wetland Hydrology Present? Yes No x	within a Wetland?	Yes	Nox
Remarks:			Observed Classifications:
Upland forest, moist mesic, with relic F3 soil coloring from pre-	drained conditions. No hyd	rology	Cowardin: UPL
indicators.	•	0,	cowardin. Of E
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indica	ators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		Surface Soil	
Surface Water (A1) Aquatic Fauna (B:			getated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B1		Drainage Pat	
Saturation (A3) Hydrogen Sulfide		Moss Trim Li	, ,
	neres along Living Roots (C3)		Water Table (C2)
Sediment Deposits (B2) Presence of Redu		Crayfish Burr	, ,
	ction in Tilled Soils (C6)		isible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface	, ,		Position (D2)
Iron Deposits (B5) Other (Explain in I	, ,	Shallow Aqui	
Inundation Visible on Aerial Imagery (B7)	(ornamo)	FAC-Neutral	, ,
Water-Stained Leaves (B9)			noss (D8) (LRR T, U)
Field Observations:		<u> </u>	.555 (25) (2.111 1, 5)
Surface Water Present? Yes Nox Depth (inches	3):		
Water Table Present? Yes No _x Depth (inches			
Saturation Present? Yes No _x Depth (inches		l Hydrology Presen	nt? Yes No _ x
(includes capillary fringe)			
Describe Recorded Data (stream gauge, monitoring well, aerial phot	os, previous inspections), if a	vailable:	
Remarks:			
Nemarks.			

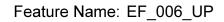
	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft)	% Cover	Species?	Status	Number of Dominant Species
1. Quercus rubra, Northern Red Oak	35	<u>Yes</u>	FACU	That Are OBL, FACW, or FAC:6 (A)
2. <u>Liquidambar styraciflua, Sweet-Gum</u>	30	<u>Yes</u>	<u>FAC</u>	Total Number of Dominant
3. Acer rubrum, Red Maple	25	Yes	FAC	Species Across All Strata: 7 (B)
4. Pinus taeda, Loblolly Pine	15	No	FAC	
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 85.7% (A/B)
6				Prevalence Index worksheet:
		= Total Cov		Total % Cover of: Multiply by:
50% of total cover: <u>52.5</u>	20% of	total cover:	21	OBL species5 x 1 =5
Sapling Stratum (Plot size: 30 ft)				FACW species 0 x 2 = 0
Liquidambar styraciflua, Sweet-Gum				FAC species x 2 =
2. Acer rubrum, Red Maple	15	Yes	FAC	
3				FACU species x 4 = 160
4				UPL species 0 x 5 = 0
5				Column Totals:190 (A)600 (B)
6				Prevalence Index = B/A =3.16
		= Total Cov		Hydrophytic Vegetation Indicators:
50% of total cover: 20	20% of	total cover:	8	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft				x 2 - Dominance Test is >50%
1				3 - Prevalence Index is ≤3.0 ¹
2				Problematic Hydrophytic Vegetation¹ (Explain)
3				
4				¹ Indicators of hydric soil and wetland hydrology must
5.				be present, unless disturbed or problematic.
6.				Definitions of Five Vegetation Strata:
		= Total Cov		3
50% of total cover: 0				Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 30 ft)	20 % 01	total cover.		approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
Microstegium vimineum, Japanese Stilt Grass	25	<u>Yes</u>	FAC	Sapling – Woody plants, excluding woody vines,
2. Toxicodendron radicans, Eastern Poison Ivy	10	Yes	FAC	approximately 20 ft (6 m) or more in height and less
3. Juncus effusus, Lamp Rush	5	No	OBL	than 3 in. (7.6 cm) DBH.
4. Lonicera japonica, Japanese Honeysuckle	5	<u>No</u>	<u>FACU</u>	Shrub – Woody plants, excluding woody vines,
5				approximately 3 to 20 ft (1 to 6 m) in height.
6.				Herb – All herbaceous (non-woody) plants, including
7.				herbaceous vines, regardless of size, and woody
8.				plants, except woody vines, less than approximately 3 ft (1 m) in height.
9				3 it (1 iii) iii ii eigiit.
				Woody vine - All woody vines, regardless of height.
10				
11				
		= Total Cov		
50% of total cover: <u>22.5</u>	20% of	total cover	9	
Woody Vine Stratum (Plot size: 30 ft)				
1				
2				
3				
4				
5				Hydrophytic
		= Total Cov	er	Vegetation
50% of total cover:0				Present? Yes No
Remarks: (If observed, list morphological adaptations belo				
	/.			

Sampling Point: EF 006 UP

SOIL Sampling Point: EF 006 UP

Profile Des	cription: (Describe t	o the dept	n needed to docur	ment the i	ndicator (or confirm	the absence	of indicators.)		
Depth (inches)	Matrix Color (moist)	 -	Redo Color (moist)	x Features %	Type ¹	Loc ²	Texture	Remarks		
0-6	10yr 3/2	100%	OGG (MOSt)		1700		Silty loam	Nomarks		
6-18			10yr 5/4	5%				compacted		
0-10	10yr 5/2		10y1 3/4		<u>C</u>	M	Silty loam	compacted		
	oncentration, D=Depl					ains.		PL=Pore Lining, M=Matrix.		
Hydric Soil	Indicators: (Applica	able to all L						for Problematic Hydric Soils ³ :		
Histoso	, ,		Polyvalue Be					Muck (A9) (LRR O)		
_	pipedon (A2) listic (A3)		Thin Dark Su Loamy Muck	, ,			2 cm Muck (A10) (LRR S) Reduced Vertic (F18) (outside MLRA 150A,B)			
_	en Sulfide (A4)		Loamy Gleye	-		0,	Piedmont Floodplain Soils (F19) (LRR P, S, T)			
Stratifie	d Layers (A5)		x Depleted Ma		,		Anomalous Bright Loamy Soils (F20)			
	Bodies (A6) (LRR P,		Redox Dark	,	,		(MLRA 153B)			
1	ucky Mineral (A7) (LR		Depleted Date				Red Parent Material (TF2)			
I —	resence (A8) (LRR U uck (A9) (LRR P, T)	,	Redox Depre Marl (F10) (L	,	5)		Very Shallow Dark Surface (TF12) Other (Explain in Remarks)			
_	d Below Dark Surface	e (A11)	Depleted Oc		(MLRA 15	51)	011101	(Explain in Nomano)		
_	ark Surface (A12)		Iron-Mangan					cators of hydrophytic vegetation and		
	Prairie Redox (A16) (N					(U)		tland hydrology must be present,		
ı —	Mucky Mineral (S1) (L Gleyed Matrix (S4)	KK 0, 5)	Delta Ochric Reduced Ver			NΔ 150R)	uni	ess disturbed or problematic.		
	Redox (S5)		Piedmont Flo				9A)			
· —	d Matrix (S6)		Anomalous E	•		•	•	, 153D)		
	ırface (S7) (LRR P, S	, T, U)					,			
	Layer (if observed):									
Type:			_					Proceeds Vol. V		
Depth (ir	icnes):						Hydric Soil	Present? Yesx No		
Remarks:	soil colloring for E2	coil ic day	and crumbly							
Telic liyulic	soil colloring for F3	, soil is ury	and crumbly							

Date: <u>5/13/21</u>







Photograph Direction North

Comments: None.

Photograph Direction South

Comments: None.





Photograph Direction East

Comments:

None.

Photograph Direction West

Comments: None.

Project/Site: Dominion CVOW	City/County: Virginia	Beach/Virginia Beach	Sampling Date:	5/4/2021		
Applicant/Owner: Dominion		State: <u>VA</u>	Sampling Point: JD	UP 03		
Investigator(s): J. Daugustine, B. Harris	Section, Township, F	Range:				
Landform (hillslope, terrace, etc.): Flat				(%): <u>5</u>		
Subregion (LRR or MLRA): MLRA 153B of LRR T Lat:	36.769868	Long:	-76.072321 Datur	n: WGS84		
		NWI classific				
Are climatic / hydrologic conditions on the site typical for this time of y						
Are Vegetation, Soil, or Hydrology significantly				No		
Are Vegetation, Soil, or Hydrology naturally pr		needed, explain any answe				
SUMMARY OF FINDINGS – Attach site map showing		locations, transects	s, important fea	tures, etc.		
Hydrophytic Vegetation Present? Yesx No						
Hydric Soil Present? Yes No x	is the Sample					
Wetland Hydrology Present? Yes Nox	within a Wetl	and? Yes	Nox			
Remarks:	.		Observed Classific	ations:		
Hydrophytic vegetation passes with facultative species.			Cowardin:			
HYDROLOGY						
Wetland Hydrology Indicators:		Secondary Indica	ators (minimum of tw	o required)		
Primary Indicators (minimum of one is required; check all that apply)	١		Cracks (B6)	o required/		
Surface Water (A1) Aquatic Fauna (B			, ,	rface (B8)		
High Water Table (A2) Marl Deposits (B1		Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10)				
Saturation (A3) Hydrogen Sulfide		Moss Trim L				
	heres along Living Roo	_	Water Table (C2)			
Sediment Deposits (B2) Presence of Redu		Crayfish Bur	, ,			
	ction in Tilled Soils (C6		isible on Aerial Imag	eny (CQ)		
Algal Mat or Crust (B4) Thin Muck Surface	,		Position (D2)	ery (CS)		
Iron Deposits (B5) Other (Explain in I		Shallow Aqu				
Inundation Visible on Aerial Imagery (B7)	(Cinarks)	FAC-Neutral	, ,			
Water-Stained Leaves (B9)			noss (D8) (LRR T, U	۱ ا		
Field Observations:		Ophlagham	1000 (00) (21111 1, 0	,		
Surface Water Present? Yes No _x Depth (inches	s).					
Water Table Present? Yes No _x Depth (inches						
Saturation Present? Yes No _x Depth (inches		Vetland Hydrology Preser	nt? Yes	No ×		
(includes capillary fringe)						
Describe Recorded Data (stream gauge, monitoring well, aerial photos	tos, previous inspection	ns), if available:				
Remarks:						
<u> </u>				-		

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size: 30 ft)		Species?		Number of Dominant Species		
Fagus grandifolia, American Beech	40	<u>Yes</u>	<u>FACU</u>	That Are OBL, FACW, or FAC:7 (A)		
2. <u>Liquidambar styraciflua, Sweet-Gum</u>	20	Yes	FAC	Total Number of Dominant		
3. Acer rubrum, Red Maple	15	<u>No</u>	<u>FAC</u>	Species Across All Strata:10 (B)		
4. Quercus rubra, Northern Red Oak	10	No	FACU	Develop of Deminent Species		
5. Pinus virginiana, Virginia Pine	10	No	UPL	Percent of Dominant Species That Are OBL, FACW, or FAC: 70.0% (A/B)		
6. Carya glabra, Pignut Hickory	5	No	<u>FACU</u>			
	100 :	= Total Cov	/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)				OBL species0 x 1 =0		
1. Acer rubrum, Red Maple	15	Yes	FAC	FACW species15 x 2 =30		
Magnolia virginiana, Sweet-Bay				FAC species 90 x 3 = 270		
			171011	FACU species 90 x 4 = 360		
3				UPL species x 5 = 100		
4				Column Totals:215 (A)760 (B)		
5				Prevalence Index = B/A =3.53		
		= Total Co	/er	Hydrophytic Vegetation Indicators:		
50% of total cover:10	20% of	total cover	:4	1 - Rapid Test for Hydrophytic Vegetation		
Shrub Stratum (Plot size: 30 ft				x 2 - Dominance Test is >50%		
1. Asimina triloba, Common Pawpaw	15	Yes	FAC	3 - Prevalence Index is ≤3.0¹		
Magnolia virginiana, Sweet-Bay		Yes		I —		
3. Carya glabra, Pignut Hickory		No		Problematic Hydrophytic Vegetation¹ (Explain)		
4				1		
				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
5				Definitions of Five Vegetation Strata:		
0	20			Demilitions of Five Vegetation Strata.		
500/ official covers 45	30 = Total Cover			Tree – Woody plants, excluding woody vines,		
50% of total cover:15 <u>Herb Stratum</u> (Plot size: <u>30 ft</u>)	20% of	total cover		approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).		
1. Mitchella repens, Partridge-Berry	20	Yes	FACU	Sapling – Woody plants, excluding woody vines,		
Vaccinium angustifolium, Late Lowbush Blueberry	10	Yes		approximately 20 ft (6 m) or more in height and less		
3. Asimina triloba, Common Pawpaw				than 3 in. (7.6 cm) DBH.		
4. Carex swanii, Swan's Sedge	_			Shrub – Woody plants, excluding woody vines,		
5. Acer rubrum, Red Maple	_			approximately 3 to 20 ft (1 to 6 m) in height.		
6. Pinus virginiana, Virginia pine			UPL	Herb – All herbaceous (non-woody) plants, including		
7.		110	<u> </u>	herbaceous vines, regardless of size, and woody		
				plants, except woody vines, less than approximately		
8				3 ft (1 m) in height.		
9				Woody vine - All woody vines, regardless of height.		
10						
11						
		= Total Cov				
50% of total cover: <u>27.5</u>	20% of	total cover	:			
Woody Vine Stratum (Plot size: 30 ft)						
1. Smilax rotundifolia, Horsebrier		<u>Yes</u>				
2						
3						
4						
5				Hydrophytic		
	10 = Total Cover			Vegetation		
50% of total cover:5	20% of	total cover	:2	Present? Yes <u>×</u> No		
Remarks: (If observed, list morphological adaptations belo	w).			1		

Sampling Point: JD UP 03

SOIL Sampling Point: JD UP 03

Depth	cription: (Describe) Matrix	to the dep		x Feature:		or commi	the absence of i	indicators.)		
(inches)	Color (moist)	%	Color (moist)	<u> %</u>	Type ¹	Loc ²	Texture	Remark	(S	
0-2	10YR 2/2	100%					Loam			
2-19	2.5Y 6/3	90%	10YR 5/6	10%	С	М	Loam			
			-							
4										
	Concentration, D=Dep					ains.		=Pore Lining, M=M		
Histoso	Indicators: (Application)	able to all				DD C T II		Problematic Hydi	ic soils :	
	pipedon (A2)		Polyvalue Be Thin Dark Su				-	k (A9) (LRR O) k (A10) (LRR S)		
	listic (A3)		Loamy Muck				Reduced Vertic (F18) (outside MLRA 150A,B)			
	en Sulfide (A4)		Loamy Gleye		F2)			Floodplain Soils (F	, , , , ,	
	ed Layers (A5)	T	Depleted Mai		-0)			s Bright Loamy Soi	ls (F20)	
_	: Bodies (A6) (LRR P , ucky Mineral (A7) (LF		Redox Dark : Depleted Dar	,	,		(MLRA 1	nt Material (TF2)		
	resence (A8) (LRR U	, , ,	Redox Depre					low Dark Surface (1	ΓF12)	
_	uck (A9) (LRR P, T)	,	Marl (F10) (L	.RR U)	,			olain in Remarks)	,	
	ed Below Dark Surface	e (A11)	Depleted Oct	, ,	•	-	2			
	Park Surface (A12)	MI DA 4507	Iron-Mangan		, , ,		•	rs of hydrophytic ve	-	
	Prairie Redox (A16) (N Mucky Mineral (S1) (L		 Umbric Surfa Delta Ochric 	, , ,		, 0)		d hydrology must be disturbed or proble	•	
	Gleyed Matrix (S4)	0, 0,	Reduced Ver		-	0A, 150B)		arotarboa or probro		
Sandy	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	9A)			
	d Matrix (S6)		Anomalous E	Bright Loar	my Soils (I	F20) (MLR	A 149A, 153C, 15	(3D)		
	urface (S7) (LRR P, S Layer (if observed):						T			
Type:	Layer (II observed).									
	nches):						Hydric Soil Pre	esent? Yes	Nox	
Remarks:	1011007:						11,4110 0011110			
	ns redoximorphic fe	atures but	the matrix is not d	lepleted e	enough to	meet an	y hydric soil indic	cator.		
							,,			

Date: 5/4/21

Feature Name: JD_UP_03



Photograph Number ___

Photograph Direction North

Comments: Upstream.



Photograph Number _____

Photograph Direction South

Comments: Downstream.



Photograph Number _____

Photograph Direction East

Comments:

None.



Photograph Number _____

Photograph Direction West

Comments: None.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Dominion CVOW	City/County: Virgin	nia Beach/Virginia Beach	_ Sampling Date:5/12/2021
Applicant/Owner: Dominion		State: VA	_ Sampling Point: JD_UP_006
Investigator(s): J. D'Augustine, L. Donston	Section, Township	, Range:	
Landform (hillslope, terrace, etc.): Flat			
Subregion (LRR or MLRA): MLRA 153B of LRR T Lat:			
		NWI classifi	
Are climatic / hydrologic conditions on the site typical for this time of			
Are Vegetation, Soil, or Hydrology significa			
Are Vegetation, Soil, or Hydrology naturally		(If needed, explain any answ	ŕ
SUMMARY OF FINDINGS – Attach site map show	ing sampling poi	nt locations, transect	s, important features, etc.
Hydrophytic Vegetation Present? Yesx No			
Hydric Soil Present? Yes No _x	is the Sam	•	AL V
Wetland Hydrology Present? Yes No ×		etland? Yes	Nox
Remarks:			Observed Classifications:
Data point taken within an existing utility easement, overgro	own with opportunisti	c Arundinaria tecta	Cowardin:
(FACW).			
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indic	cators (minimum of two required)
Primary Indicators (minimum of one is required; check all that ap	(vla		il Cracks (B6)
Surface Water (A1) Aquatic Fauna			egetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (atterns (B10)
Saturation (A3) Hydrogen Sulfi		Moss Trim I	
	ospheres along Living R	.—	n Water Table (C2)
Sediment Deposits (B2) Presence of Re		Crayfish Bu	, ,
Drift Deposits (B3) Recent Iron Re	eduction in Tilled Soils (C6) Saturation \	Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Sur	face (C7)	Geomorphic	c Position (D2)
Iron Deposits (B5) Other (Explain	in Remarks)	Shallow Aq	uitard (D3)
Inundation Visible on Aerial Imagery (B7)		FAC-Neutra	
Water-Stained Leaves (B9)		Sphagnum	moss (D8) (LRR T, U)
Field Observations:			
Surface Water Present? Yes No _x Depth (inc	l l		
Water Table Present? Yes No _x Depth (inc	:hes):		
Saturation Present? Yes No _x Depth (includes capillary fringe)	ches):	Wetland Hydrology Prese	ent? Yes Nox
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial p	hotos, previous inspect	tions), if available:	
		•	
Remarks:			

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

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft)	% Cover	Species?	? Status	Number of Dominant Species
-				That Are OBL, FACW, or FAC:3 (A)
2				Total Number of Dominant
3				Species Across All Strata:4 (B)
4				Demonstrat Demoissant Conscient
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)
6				(***)
		= Total Co	ver	Prevalence Index worksheet:
50% of total cover:0				Total % Cover of: Multiply by:
Sapling Stratum (Plot size: 30 ft)	20700	r total oovel		OBL species0 x 1 =0
				FACW species45 x 2 =90
1. <u>N/A</u>				FAC species x 3 =210
2				FACU species35 x 4 =140
3				UPL species 0 x 5 = 0
4				Column Totals: <u>150</u> (A) <u>440</u> (B)
5				(5)
6				Prevalence Index = B/A =2.93
		= Total Co		Hydrophytic Vegetation Indicators:
50% of total cover: 0	20% o	t total cover	r:0	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft)				X 2 - Dominance Test is >50%
1. <u>N/A</u>				X 3 - Prevalence Index is ≤3.01
2				Problematic Hydrophytic Vegetation¹ (Explain)
3				
4				¹ Indicators of hydric soil and wetland hydrology must
5				be present, unless disturbed or problematic.
6.				Definitions of Five Vegetation Strata:
		= Total Co		
50% of total cover:0	20% o	f total cover	r: 0	Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: 30 ft)				(7.6 cm) or larger in diameter at breast height (DBH).
Solidago rugosa, Wrinkle-Leaf Goldenrod	50	Ves	FΔC	Continue 10/and and anterior state of the control o
Arundinaria tecta, Switch Cane				Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
Eupatorium capillifolium, Dog-Fennel				than 3 in. (7.6 cm) DBH.
				Should Mandy plants evaluating woods wines
4				Shrub – Woody plants, excluding woody vines,
				approximately 3 to 20 ft (1 to 6 m) in height.
5				approximately 3 to 20 ft (1 to 6 m) in height.
				Herb – All herbaceous (non-woody) plants, including
5				Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, <u>and</u> woody
5				Herb – All herbaceous (non-woody) plants, including
5				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.
5				Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, <u>and</u> woody plants, except woody vines, less than approximately
5				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.
5				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.
5	100	= Total Co		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.
5	100	= Total Co		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.
5		= Total Co	r: <u>20</u>	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.
5	100 20% c	= Total Co	r:20	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.
5	100 20% c	= Total Co f total cove	FACU 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.
5	100 20% o	= Total Co f total cove	FACU 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.
5	100 20% o	= Total Co f total cove	FACU 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.
5	100 20% c	= Total Cover total cover	FACU FAC 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
5	100 20% c	= Total Co f total cove	FACU FAC 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 Vegetation
5	100 20% c 30 15 5	= Total Co f total cover Yes Yes No = Total Co	r: 20 FACU FAC FAC Ver	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
5	100 20% o 30 15 5	= Total Co f total cover Yes Yes No = Total Co	r: 20 FACU FAC FAC Ver	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
5	100 20% o 30 15 5	= Total Co f total cover Yes Yes No = Total Co	r: 20 FACU FAC FAC Ver	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

Sampling Point: JD UP 006

SolL Sampling Point: <u>JD_UP_006</u>

	cription: (Describe	to the depth				or confirm	the absence of i	ndicators.)
Depth (inches)	Matrix Color (moist)	 _	Color (moist)	x Features %	S Type ¹	Loc ²	Texture	Remarks
0-5	10YR 3/2	100%	COIOI (IIIOISI)		1,00		Sandy loam	Nomarko
					-			
5-20	10YR 4/3	100%		- ——			Sandy loam	
		-						
	-							
4								
	concentration, D=Dep					ains.		=Pore Lining, M=Matrix.
_	Indicators: (Applic	able to all Li				-		Problematic Hydric Soils ³ :
Histosol			Polyvalue Be					
	pipedon (A2) listic (A3)		Thin Dark Su Loamy Muck					((A10) (LRR S) /ertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)		Loamy Gleye	-		. 0,		Floodplain Soils (F19) (LRR P, S, T)
	d Layers (A5)		Depleted Ma	,	,			s Bright Loamy Soils (F20)
_	Bodies (A6) (LRR P	', T, U)	Redox Dark		- 6)		(MLRA 1	
_	ucky Mineral (A7) (LI		Depleted Da		, ,			t Material (TF2)
ı —	resence (A8) (LRR L	J)	Redox Depre	,	8)		—	ow Dark Surface (TF12)
	uck (A9) (LRR P, T)	/ A 4 4 \	Marl (F10) (L	•	221 B A 4	-41	Other (Exp	olain in Remarks)
	d Below Dark Surfac ark Surface (A12)	e (A11)	Depleted Oct Iron-Mangan	, ,	•		T\ 3Indicator	s of hydrophytic vegetation and
	ark Suriace (A12) Prairie Redox (A16) (I	MI RA 150A)	_				•	I hydrology must be present,
ı —	Mucky Mineral (S1) (I		Delta Ochric			, 0,		disturbed or problematic.
	Gleyed Matrix (S4)	, ,	Reduced Ver		-	0A, 150B)		
Sandy F	Redox (S5)		Piedmont Flo	oodplain S	oils (F19)	(MLRA 14	9A)	
I — · ·	d Matrix (S6)		Anomalous E	3right Loar	my Soils (F20) (MLR	A 149A, 153C, 153	3D)
	ırface (S7) (LRR P, \$						·	
	Layer (if observed):							
"			_					v
	iches):						Hydric Soil Pre	sent? Yes Nox
Remarks:								

Photograph Log

Date: 5/12/21 Feature Name: JD_UP_006 Photograph Number _____ Photograph Number _____ Photograph Direction West Photograph Direction _____ Comments: None. Comments: Photograph Number _____ Photograph Number _____ Photograph Direction _____ Photograph Direction _____ Comments: Comments:

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Dominion CVOW	City/County: Virginia	a Beach/Virginia Beach	Sampling Date: 5/13/2	2021
Applicant/Owner: Dominion		State: VA	Sampling Point: JD UP 007	7
Investigator(s): J. D'Augustine, L. Donston	Section, Township, I	Range:		
Landform (hillslope, terrace, etc.): Flat				
Subregion (LRR or MLRA): MLRA 153B of LRR T Lat:	36.769891	Long:	-76.078348 Datum: WGS8	4
Soil Map Unit Name: 1 - Acredale silt loam				
Are climatic / hydrologic conditions on the site typical for this time of y				
Are Vegetation, Soil, or Hydrology significantly				
Are Vegetation, Soil, or Hydrology naturally pr		needed, explain any answe		
SUMMARY OF FINDINGS – Attach site map showing			,	etc.
Hydrophytic Vegetation Present? Yes Nox	is the Sailibi	ed Area		
Hydric Soil Present? Yes Nox Wetland Hydrology Present? Yes Nox	within a Wet	land? Yes	Nox	
Wetland Hydrology Present? Yes Nox Remarks:			Observed Classifications:	\dashv
			Cowardin:	_
HYDROLOGY				
Wetland Hydrology Indicators:		Secondary Indica	ators (minimum of two require	d)
Primary Indicators (minimum of one is required; check all that apply)	1	Surface Soil	Cracks (B6)	
Surface Water (A1) Aquatic Fauna (B	13)	Sparsely Ve	getated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B1	5) (LRR U)	Drainage Pa	atterns (B10)	
Saturation (A3) Hydrogen Sulfide	Odor (C1)	Moss Trim L	.ines (B16)	
Water Marks (B1) Oxidized Rhizospl	heres along Living Ro	ots (C3) Dry-Season	Water Table (C2)	
Sediment Deposits (B2) Presence of Redu	ced Iron (C4)	Crayfish Bui	rows (C8)	
Drift Deposits (B3) Recent Iron Redu	ction in Tilled Soils (C	6) Saturation V	isible on Aerial Imagery (C9)	
Algal Mat or Crust (B4) Thin Muck Surface	e (C7)	Geomorphic	Position (D2)	
Iron Deposits (B5) Other (Explain in F	Remarks)	Shallow Aqu	ıitard (D3)	
Inundation Visible on Aerial Imagery (B7)		FAC-Neutra	, ,	
Water-Stained Leaves (B9)		Sphagnum r	moss (D8) (LRR T, U)	
Field Observations:				
Surface Water Present? Yes No _x Depth (inches				
Water Table Present? Yes Nox Depth (inches	s):			
Saturation Present? Yes No _x Depth (inches (includes capillary fringe)	s): \ \	Wetland Hydrology Prese	nt? Yes Nox	-
Describe Recorded Data (stream gauge, monitoring well, aerial phot	tos, previous inspectio	ons), if available:		
Remarks:				
				H

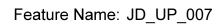
		Dominant		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: 30 ft)		Species?		Number of Dominant Species
Liquidambar styraciflua, Sweet-Gum		<u>Yes</u>	<u>FAC</u>	That Are OBL, FACW, or FAC:4 (A)
2. Quercus falcata, Southern Red Oak			<u>FACU</u>	Total Number of Dominant
3. Acer rubrum, Red Maple	15	<u>No</u>	FAC	Species Across All Strata: 12 (B)
4. Pinus taeda, Loblolly Pine	10	No	FAC	Percent of Dominant Species
5. <u>Liriodendron tulipifera, Tuliptree</u>	10	No	<u>FACU</u>	Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)
6				Providence land outside to the
	<u>85</u>	= Total Cov	⁄er	Prevalence Index worksheet:
50% of total cover: 42.5	20% of	total cover	17	Total % Cover of: Multiply by:
Sapling Stratum (Plot size: 30 ft)				OBL species 0 x 1 = 0
1. Quercus falcata, Southern Red Oak	20	Yes	_FACU_	FACW species 5 x 2 = 10
2. Carya glabra, Pignut Hickory		Yes	FACU	FAC species75 x 3 =225
3. Liquidambar styraciflua, Sweet-Gum			FAC	FACU species95 x 4 =380
4. Acer rubrum, Red Maple	_			UPL species10 x 5 =50
Quercus michauxii, Swamp Chestnut Oak		No		Column Totals: <u>185</u> (A) <u>665</u> (B)
6				Develope a ladar - D/A - 3.50
	45	= Total Cov	/er	Prevalence Index = B/A = 3.59
50% of total cover: <u>22.5</u>				Hydrophytic Vegetation Indicators:
Shrub Stratum (Plot size: 30 ft)	207001	total cover		1 - Rapid Test for Hydrophytic Vegetation
	1 5	Voc	EACH	2 - Dominance Test is >50%
Quercus falcata, Southern Red Oak Vasaining agreetifaling Late Laubuch Bluebagge				3 - Prevalence Index is ≤3.01
2. Vaccinium angustifolium, Late Lowbush Blueberry				Problematic Hydrophytic Vegetation¹ (Explain)
3. Pinus taeda, Loblolly Pine			<u>FAC</u>	
4				¹ Indicators of hydric soil and wetland hydrology must
5				be present, unless disturbed or problematic.
6				Definitions of Five Vegetation Strata:
	25	= Total Cov	/er	Tree – Woody plants, excluding woody vines,
50% of total cover: <u>12.5</u>	20% of	total cover	:5	approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: 30 ft)				(7.6 cm) or larger in diameter at breast height (DBH).
1. Carex swanii, Swan's Sedge	10	<u>Yes</u>	UPL	Sapling – Woody plants, excluding woody vines,
2				approximately 20 ft (6 m) or more in height and less
3				than 3 in. (7.6 cm) DBH.
4				Shrub – Woody plants, excluding woody vines,
5.				approximately 3 to 20 ft (1 to 6 m) in height.
6.				Herb – All herbaceous (non-woody) plants, including
7.				herbaceous vines, regardless of size, and woody
8.				plants, except woody vines, less than approximately 3 ft (1 m) in height.
9				
10.				Woody vine - All woody vines, regardless of height.
11.				
· · · · · · · · · · · · · · · · · · ·	10	= Total Cov		
500/ -ft-t-l				
50% of total cover: 5	20% 01	total cover	:2	
Woody Vine Stratum (Plot size: 30 ft)	_		540	
1. <u>Smilax rotundifolia, Horsebrier</u>	5	<u>Yes</u>	<u>FAC</u>	
2. <u>Parthenocissus quinquefolia, Virginia-Creeper</u>	5	<u>Yes</u>	<u>FACU</u>	
3. Vitis rotundifolia, Muscadine	5	<u>Yes</u>	FAC	
4. <u>Lonicera japonica, Japanese Honeysuckle</u>	5	<u>Yes</u>	<u>FACU</u>	
5				Hydrophytic
	20:	= Total Cov	er er	Vegetation
50% of total cover: 10		total cover	:4	Present? Yes Nox
Remarks: (If observed, list morphological adaptations belo	w).			

Sampling Point: JD UP 007

SOIL Sampling Point: JD_UP_007

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 Loc Texture Remar	ks
0-2 10YR 2/2 100% Loam	13
2-11 10YR 5/2 100% Clay loam	
11-20 10YR 5/2 98% 10YR 4/6 2% C M Clay loam	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. 2Location: PL=Pore Lining, M=N	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hyd	
Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O)	
Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR S)	
Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (outsigners) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F	
Nydrogen damad (A4) Edamy Gloyed Matrix (F2) Nedmont redeplain Gdis (F2) Normalous Bright Loamy So Depleted Matrix (F3) Anomalous Bright Loamy So	
Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B)	, ,
5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2)	
Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12)
1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151)	
Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T) Indicators of hydrophytic versions and the surface of hydrophytic versions and the surface (A12)	egetation and
Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) wetland hydrology must b	•
Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) unless disturbed or proble	ematic.
Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A)	
Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)	
Dark Surface (S7) (LRR P, S, T, U)	
Restrictive Layer (if observed):	
Type:	u u
Depth (inches): Hydric Soil Present? Yes	Nox
Remarks:	
Depleted matrix with redoximorphic features were observed within the lower 11-20 inches; however, this depth does not hydric soil indicators.	t meet any
Tryune 3011 maleators.	

Date: 5/13/21







Photograph Direction South

Comments:

Photograph Direction North

Comments:





Photograph Direction West

Comments:

Photograph Direction East

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Dominion CVOW	City/County: Virgini	a Beach/Virginia Beach	Sampling Date:	5/13/2021	
Applicant/Owner: Dominion		State: VA	Sampling Point: J[UP 008	
Investigator(s): J. D'Augustine, L. Donston	Section, Township,	Range:			
Landform (hillslope, terrace, etc.): Flat				(%): 0	
Subregion (LRR or MLRA): MLRA 153B of LRR T Lat:					
			_	III. <u>WG364</u>	
Soil Map Unit Name: 1 - Acredale silt loam		NWI classific			
Are climatic / hydrologic conditions on the site typical for this time of y					
Are Vegetation, Soil, or Hydrology significantly	y disturbed? Ai	re "Normal Circumstances" _l	present? Yesx	No	
Are Vegetation, Soil, or Hydrology naturally pr	roblematic? (If	needed, explain any answe	rs in Remarks.)		
SUMMARY OF FINDINGS - Attach site map showing	g sampling poin	t locations, transects	, important fea	itures, etc.	
Hydrophytic Vegetation Present? Yesx No	is the Sailib	led Area			
Hydric Soil Present? Yes Nox Westerd Hydrology Present?	within a Wet	land? Yes	Nox		
Wetland Hydrology Present? Yes Nox Remarks:	-				
Hydrophytic vegetation passes with predominantly facultative	snecies Soil was cha	aracterized with a	Observed Classifi		
depleted matrix and redoximorphic features at a depth that dic	•		Cowardin:		
indicating relic wetland conditions.	,	,, ,			
HYDROLOGY					
Wetland Hydrology Indicators:		Secondary Indica	ators (minimum of tv	vo required)	
Primary Indicators (minimum of one is required; check all that apply)			Cracks (B6)	vo required)	
			, ,	urface (B8)	
Surface Water (A1) Aquatic Fauna (B' High Water Table (A2) Marl Deposits (B1		Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10)			
Saturation (A3) Hydrogen Sulfide					
Water Marks (B1) — Oxidized Rhizospi		Moss Trim Lines (B16) Roots (C3) Dry-Season Water Table (C2)			
Sediment Deposits (B2) Presence of Redu		Crayfish Bur			
	ction in Tilled Soils (C		isible on Aerial Imag	gery (C9)	
Algal Mat or Crust (B4) Thin Muck Surface	•		Position (D2)	,0., (00)	
Iron Deposits (B5) Other (Explain in I	. ,	Shallow Aqu			
Inundation Visible on Aerial Imagery (B7)	,	FAC-Neutral			
Water-Stained Leaves (B9)			moss (D8) (LRR T, L	J)	
Field Observations:			, ,,,	,	
Surface Water Present? Yes Nox Depth (inches	s):				
Water Table Present? Yes No _x Depth (inches					
Saturation Present? Yes No _x Depth (inches		Wetland Hydrology Preser	nt? Yes	No_x_	
(includes capillary fringe)					
Describe Recorded Data (stream gauge, monitoring well, aerial photos	tos, previous inspection	ons), if available:			
Remarks;					
Remarks.					

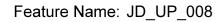
	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft)		Species?		Number of Dominant Species
Liriodendron tulipifera, Tuliptree	30	<u>Yes</u>	<u>FACU</u>	That Are OBL, FACW, or FAC:6 (A)
2. Acer rubrum, Red Maple	20	<u>Yes</u>	FAC	Total Number of Dominant
3. <u>Liquidambar styraciflua, Sweet-Gum</u>	15	Yes	FAC	Species Across All Strata:10(B)
4. Carya glabra, Pignut Hickory	10	<u>No</u>	FACU	
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 60.0% (A/B)
6.				That Ale OBE, I AOW, OF I AO.
		= Total Cov	er	Prevalence Index worksheet:
50% of total cover: <u>37.5</u>				Total % Cover of: Multiply by:
Sapling Stratum (Plot size: 30 ft)				OBL species0 x 1 =0
1. Acer rubrum, Red Maple	10	Voc	EΛC	FACW species20 x 2 =40
				FAC species60 x 3 =180
2				FACU species60 x 4 =240
3				UPL species0 x 5 =0
4				Column Totals: <u>140</u> (A) <u>460</u> (B)
5				() ()
6				Prevalence Index = B/A =3.29
	10	= Total Cov	er er	Hydrophytic Vegetation Indicators:
50% of total cover:5	20% of	total cover	:2	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft)				X 2 - Dominance Test is >50%
Carya glabra, Pignut Hickory	5	<u>Yes</u>	<u>FACU</u>	3 - Prevalence Index is ≤3.0¹
2. Vaccinium angustifolium, Late Lowbush Blueberry	5	Yes	_FACU_	Problematic Hydrophytic Vegetation¹ (Explain)
3				
4				¹ Indicators of hydric soil and wetland hydrology must
5.				be present, unless disturbed or problematic.
6.				Definitions of Five Vegetation Strata:
		= Total Cov		
50% of total cover:5				Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: 30 ft)	207001	total cover		(7.6 cm) or larger in diameter at breast height (DBH).
1. Arundinaria tecta, Switch Cane	20	Voc	EV C/V	
				Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
2				than 3 in. (7.6 cm) DBH.
3				
4				Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
5				
6				Herb – All herbaceous (non-woody) plants, including
7				herbaceous vines, regardless of size, <u>and</u> woody plants, except woody vines, less than approximately
8				3 ft (1 m) in height.
9				Woody vine – All woody vines, regardless of height.
10				Woody vine - All woody vines, regardless of fleight.
11				
	20	= Total Cov	er er	
50% of total cover: 10	20% of	total cover	:4	
Woody Vine Stratum (Plot size: 30 ft)				
1. Toxicodendron radicans, Eastern Poison Ivy	10	Yes	FAC	
Lonicera japonica, Japanese Honeysuckle		Yes	FACU	
3. Smilax rotundifolia, Horsebrier			FAC	
		103	1710	
4				
5	25			Hydrophytic Vegetation
500/ 51/1		= Total Cov		Present? Yes x No No
50% of total cover: <u>12.5</u>		total cover	:5	
Remarks: (If observed, list morphological adaptations below	W).			

Sampling Point: JD UP 008

SOIL Sampling Point: JD_UP_008

Depth			th needed to docum	ilelit tile	Tiulcator	JI COIIIIIII	tile absence o	i ilidicators.)
(inches)	Matrix Color (moist)	%	Color (moist)	x Feature %	SType ¹	Loc ²	Texture	Remarks
0-2	10YR 2/2	100%	COIOI (IIIOISI)		1900	LOC	Loam	Kemarks
2-13	2.5Y 4/1	100%					Clay loam	
13-20	2.5Y 4/2	98%	2.5Y 5/6	2%			Clay loam –	
13-20	2.31 4/2		2.31 3/0				Clay loalli _	
	·			-				
	·			· ———				
1								
	Concentration, D=Dep Indicators: (Application)					ins.		PL=Pore Lining, M=Matrix. or Problematic Hydric Soils ³ :
Histoso		able to all	Polyvalue Be			DD C T III		ick (A9) (LRR O)
	pipedon (A2)		Thin Dark Su					ick (A9) (LRR S)
	listic (A3)		Loamy Muck					Vertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)		Loamy Gleye		F2)			nt Floodplain Soils (F19) (LRR P, S, T)
_	d Layers (A5) Bodies (A6) (LRR P .	T 11\	Depleted Mar Redox Dark		:e)			ous Bright Loamy Soils (F20) A 153B)
	ucky Mineral (A7) (LF	, ,		,	,		,	ent Material (TF2)
	resence (A8) (LRR U		Redox Depre					allow Dark Surface (TF12)
	uck (A9) (LRR P, T)		Marl (F10) (L	-			Other (E	xplain in Remarks)
l —	ed Below Dark Surface ark Surface (A12)	e (A11)	Depleted Ocl	, ,		•	T) ³ Indical	ors of hydrophytic vegetation and
ı —	Prairie Redox (A16) (N	ILRA 150	_				•	nd hydrology must be present,
ı —	Mucky Mineral (S1) (L		Delta Ochric			,		s disturbed or problematic.
	Gleyed Matrix (S4)		Reduced Ver	, ,				
ı —	Redox (S5) d Matrix (S6)		Piedmont Flo	-		-	9A) A 149A, 153C, 1	153D)
ı 	u Matrix (36) urface (S7) (LRR P, S	. T. U)	Anomalous E	origini Loa	ily Solis (i	-20) (WILK)	4 149A, 155C,	1330)
	Layer (if observed):	, -, -,						
Time:								
Туре:								
Depth (ir	nches):		<u> </u>				Hydric Soil P	resent? Yes No×
Depth (ir Remarks:	,							1030IR: 103 NO
Depth (in Remarks: Depleted n	natrix with redoximo	orphic fea	tures were observe	d within	the lower	11-20 inch		resent? Yes Nox this depth does not meet any
Depth (ir Remarks:	natrix with redoximo	orphic fea	tures were observe	d within	the lower	11-20 inch		1030IR: 103 NO
Depth (in Remarks: Depleted n	natrix with redoximo	orphic fea	tures were observe	d within	the lower	11-20 inch		1030IR: 103 NO
Depth (in Remarks: Depleted n	natrix with redoximo	orphic fea	tures were observe	d within	the lower	11-20 inch		1030IR: 103 NO
Depth (in Remarks: Depleted n	natrix with redoximo	orphic fea	tures were observe	d within	the lower	11-20 inch		1030IR: 103 NO
Depth (in Remarks: Depleted n	natrix with redoximo	orphic fea	tures were observe	d within	the lower	11-20 inch		1030IR: 103 NO
Depth (ir Remarks: Depleted n	natrix with redoximo	orphic fea	tures were observe	d within	the lower	11-20 inch		1030IR: 103 NO
Depth (ir Remarks: Depleted n	natrix with redoximo	orphic fea	tures were observe	d within	the lower	11-20 inch		1030IR: 103 NO
Depth (in Remarks: Depleted n	natrix with redoximo	orphic fea	tures were observe	d within	the lower	11-20 inch		1030IR: 103 NO
Depth (in Remarks: Depleted n	natrix with redoximo	orphic fea	tures were observe	d within	the lower	11-20 inch		1030IR: 103 NO
Depth (in Remarks: Depleted n	natrix with redoximo	orphic fea	tures were observe	d within	the lower	11-20 inch		1030IR: 103 NO
Depth (in Remarks: Depleted n	natrix with redoximo	orphic fea	tures were observe	d within	the lower	11-20 inch		1030IR: 103 NO
Depth (in Remarks: Depleted n	natrix with redoximo	orphic fea	tures were observe	d within	the lower	11-20 inch		1030IR: 103 NO
Depth (in Remarks: Depleted n	natrix with redoximo	orphic fea	tures were observe	d within	the lower	11-20 inch		1030IR: 103 NO
Depth (in Remarks: Depleted n	natrix with redoximo	orphic fea	tures were observe	d within	the lower	11-20 inch		1030IR: 103 NO
Depth (in Remarks: Depleted n	natrix with redoximo	orphic fea	tures were observe	d within	the lower	11-20 inch		1030IR: 103 NO
Depth (in Remarks: Depleted n	natrix with redoximo	orphic fea	tures were observe	d within	the lower	11-20 inch		1030IR: 103 NO
Depth (in Remarks: Depleted n	natrix with redoximo	orphic fea	tures were observe	d within	the lower	11-20 inch		1030IR: 103 NO
Depth (in Remarks: Depleted n	natrix with redoximo	orphic fea	tures were observe	d within	the lower	11-20 inch		1030IR: 103 NO

Date: 5/13/21







Photograph Direction North

Comments:

Photograph Direction South

Comments:





Photograph Direction West

Comments:

Photograph Direction East

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Dominion CVOW		City/County: \	'irginia Beach/	Virginia Beach	_ Sampling Date: _	5/14/2021
Applicant/Owner: Dominion				State: VA	Sampling Point: J	D UP 009
Investigator(s): J. D'Augustine, R. Bry	/don	Section, Towr	ship, Range:			
Landform (hillslope, terrace, etc.): Fla		Local relief (co				· (%): 0
Subregion (LRR or MLRA): MLRA 153						
	<u>B OI ERR I</u>					III. <u>VV 0304</u>
Soil Map Unit Name: 24 - Nimmo Ioam				NWI classifi		
Are climatic / hydrologic conditions on						
Are Vegetation, Soil,			Are "Norma	al Circumstances"	present? Yesx	No
Are Vegetation, Soil, o	r Hydrology n	aturally problematic?	(If needed,	explain any answ	ers in Remarks.)	
SUMMARY OF FINDINGS -	Attach site map	showing sampling	point locati	ons, transects	s, important fea	atures, etc.
Hydrophytic Vegetation Present?	Yes No	is the	Sampled Area			
Hydric Soil Present?	Yes No		a Wetland?	Yes	No×	
Wetland Hydrology Present? Remarks:	Yes No	<u> </u>				
Remarks.					Observed Classif	
					Cowardin:	
HYDROLOGY						
Wetland Hydrology Indicators:					ators (minimum of t	wo required)
Primary Indicators (minimum of one					l Cracks (B6)	
Surface Water (A1)	Aquatic				egetated Concave S	urface (B8)
High Water Table (A2)		posits (B15) (LRR U)			atterns (B10)	
Saturation (A3)		n Sulfide Odor (C1)		Moss Trim I	, ,	
Water Marks (B1)		Rhizospheres along Liv	ng Roots (C3)		Water Table (C2)	
Sediment Deposits (B2)		e of Reduced Iron (C4)		Crayfish Bu		(00)
Drift Deposits (B3)		ron Reduction in Tilled S	oils (C6)		/isible on Aerial Ima	gery (C9)
Algal Mat or Crust (B4)	_	ck Surface (C7)		X Geomorphic		
Iron Deposits (B5)		xplain in Remarks)		Shallow Aqu	, ,	
Inundation Visible on Aerial Ima	gery (B7)			FAC-Neutra		
Water-Stained Leaves (B9)				Sphagnum	moss (D8) (LRR T,	J)
Field Observations:						
		th (inches):	-			
	No _x Dep		-			
Saturation Present? Yes (includes capillary fringe)	Nox Dep	th (inches):	Wetland	Hydrology Prese	nt? Yes	Nox
Describe Recorded Data (stream ga	uge, monitoring well, a	erial photos, previous in:	spections), if av	ailable:		
Remarks:						
H						ļ

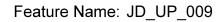
		Dominant		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30 ft</u>)		Species?		Number of Dominant Species
Liguidambar styraciflua, Sweet-Gum		<u>Yes</u>	<u>FAC</u>	That Are OBL, FACW, or FAC: 4 (A)
2. <u>Carya glabra, Pignut Hickory</u>			<u>FACU</u>	Total Number of Dominant
3. Pinus taeda, Loblolly Pine	10	<u>No</u>	<u>FAC</u>	Species Across All Strata: 9 (B)
4. Quercus falcata, Southern Red Oak	5	<u>No</u>	FACU	Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 44.4% (A/B)
6				Prevalence Index worksheet:
		= Total Cov		Total % Cover of: Multiply by:
50% of total cover: <u>37.5</u>	20% of	total cover	15	OBL species
Sapling Stratum (Plot size: 30 ft)				
Liquidambar styraciflua, Sweet-Gum	15	<u>Yes</u>	<u>FAC</u>	FACW species 40 x 2 = 80
2. Carya glabra, Pignut Hickory	10	Yes	<u>FACU</u>	FAC species 115 x 3 = 345
3. Elaeagnus umbellata, Autumn Olive	5	No	UPL	FACU species 80 x 4 = 320
4				UPL species10 x 5 =50
5				Column Totals: <u>245</u> (A) <u>795</u> (B)
6				Prevalence Index = B/A =3.24
	30	= 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: 30 ft)				2 - Dominance Test is >50%
1. <u>Carya glabra, Pignut Hickory</u>	15	<u>Yes</u>	<u>FACU</u>	3 - Prevalence Index is ≤3.0¹
2. Elaeagnus umbellata, Autumn Olive			UPL	Problematic Hydrophytic Vegetation¹ (Explain)
3				Troblematic Hydrophytic Vegetation (Explain)
4.				Indicators of hydric call and watland hydrology must
5				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
6				Definitions of Five Vegetation Strata:
·		= Total Cov		John Marie Control Cognition Charles
50% of total cover: 10				Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 30 ft)	20% 01	total cover		approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
	40	Voc	EACIA/	
-			FACW	Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
2. <u>Ligustrum sinense, Chinese Privet</u>		No	FAC	than 3 in. (7.6 cm) DBH.
3. <u>Ilex opaca, American Holly</u>			<u>FAC</u>	Stant. Westerlands and distance design
4				Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
5				approximately of to 20 K (1 to 0 m) in neighb
6				Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, <u>and</u> woody
7				plants, except woody vines, less than approximately
8				3 ft (1 m) in height.
9				Woody vine - All woody vines, regardless of height.
10				Woody vine - All woody vines, regardless of height.
11				
	55=	= Total Cov	er	
50% of total cover: <u>27.5</u>	20% of	total cover	11	
Woody Vine Stratum (Plot size: 30 ft)				
Parthenocissus quinquefolia, Virginia-Creeper	30	Yes	<u>FACU</u>	
2. Toxicodendron radicans, Eastern Poison Ivy	25	Yes	FAC	
3. Microstegium vimineum, Japanese Stilt Grass	10	No	FAC	
4.				
5.				Hydrophytic
	65 :	= Total Cov	er	Hydrophytic Vegetation
50% of total cover: _ 32.5				Present? Yes Nox
Remarks: (If observed, list morphological adaptations belo		total cover		l
nomarks. (II observed, list morphological adaptations belo	vv).			

Sampling Point: JD UP 009

SolL Sampling Point: <u>JD_UP_009</u>

Profile Des	cription: (Describe	to the depth n	eeded to docu	ment the i	ndicator	or confirm	the absence of	f indicators.)
Depth	Matrix			ox Features				
(inches)	Color (moist)		Color (moist)	%	Type'	Loc ²	Texture	Remarks
0-20	10YR 4/3	100%					Loam	
-								
¹Type: C=C	oncentration, D=Dep	letion RM=Re	duced Matrix M	S=Masked	Sand Gr	ains	² Location: P	L=Pore Lining, M=Matrix.
	Indicators: (Applic					шпэ.		or Problematic Hydric Soils ³ :
Histoso			Polyvalue B			RRS T III		ck (A9) (LRR O)
I —	pipedon (A2)	_	Tolyvalde B Thin Dark S					ck (A10) (LRR S)
l —	istic (A3)	_	Loamy Mucl					Vertic (F18) (outside MLRA 150A,B)
_	en Sulfide (A4)	_	Loamy Gley	-		,		t Floodplain Soils (F19) (LRR P, S, T)
Stratifie	d Layers (A5)	_	Depleted Ma	atrix (F3)			Anomalo	ous Bright Loamy Soils (F20)
Organic	Bodies (A6) (LRR P	, T, U) _	Redox Dark	Surface (F	6)		(MLRA	(153B)
5 cm M	ucky Mineral (A7) (Ll	RRP,T,U)_	Depleted Da				Red Pare	ent Material (TF2)
ı —	resence (A8) (LRR L	_	Redox Depr		3)			allow Dark Surface (TF12)
	uck (A9) (LRR P, T)		Marl (F10) (,			Other (E)	xplain in Remarks)
l —	d Below Dark Surfac	e (A11) _	Depleted Od	, ,	•	,	T) 31	ana af huideachi dia usanakakian anad
ı —	ark Surface (A12)	MI DA 150A\	Iron-Mangar Umbric Surf		, , ,	, ,	,	ors of hydrophytic vegetation and
ı —	Prairie Redox (A16) (I Mucky Mineral (S1) (I		Offibric Surfi	, ,		, 0)		nd hydrology must be present, s disturbed or problematic.
	Gleyed Matrix (S4)		Reduced Ve		-	0A. 150B)	unies	s disturbed of problematic.
	Redox (S5)	-	Piedmont FI				9A)	
ı —	d Matrix (S6)	_					A 149A, 153C, 1	53D)
	ırface (S7) (LRR P, \$	s, T, U)	_		•	, ,	,	•
Restrictive	Layer (if observed)							
Type:			_					
Depth (in	iches):						Hydric Soil Pr	resent? Yes Nox
Remarks:	,							

Date: 5/14/21







Photograph Direction North

Comments:

Photograph Direction South

Comments:





Photograph Direction West

Comments:

Photograph Direction East

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Dominion CVOW	City/County: Virginia Be	each/Virginia Beach	Sampling Date: 5/18/	2021
Applicant/Owner: Dominion		State: <u>VA</u>	Sampling Point: JD UP 01:	1
Investigator(s): J. D'Augustine, K. Walls	Section, Township, Rang	ge:		
Landform (hillslope, terrace, etc.): Flat				
Subregion (LRR or MLRA): MLRA 153B of LRR T Lat:				34
Soil Map Unit Name: 1 - Acredale silt loam				
Are climatic / hydrologic conditions on the site typical for this time of ye				
Are Vegetation, Soil, or Hydrology significantly				
Are Vegetation, Soil, or Hydrology naturally pr		eded, explain any answe		
SUMMARY OF FINDINGS – Attach site map showing			ŕ	etc.
Unidentification Processing No. 1				
Hydrophytic Vegetation Present?	Is the Sampled A			
Wetland Hydrology Present? Yes No x	within a Wetland	d? Yes	Nox	
Remarks:			Observed Classifications:	\dashv
			Cowardin:	
			cowardin.	— I
HYDROLOGY				
Wetland Hydrology Indicators:		Secondary Indica	tors (minimum of two require	(b
Primary Indicators (minimum of one is required; check all that apply)		Surface Soil		<u>~</u>
Surface Water (A1) Aquatic Fauna (B1			getated Concave Surface (B8	.
High Water Table (A2) Marl Deposits (B1)		Drainage Pa	,	'
Saturation (A3) Hydrogen Sulfide		Moss Trim Li		
	neres along Living Roots (Water Table (C2)	
Sediment Deposits (B2) Presence of Redu		Crayfish Burn		
	ction in Tilled Soils (C6)		sible on Aerial Imagery (C9)	
Algal Mat or Crust (B4) Thin Muck Surface	, ,		Position (D2)	
Iron Deposits (B5) Other (Explain in F	, ,	Shallow Aqui		
Inundation Visible on Aerial Imagery (B7)	,	FAC-Neutral	, ,	
Water-Stained Leaves (B9)			noss (D8) (LRR T, U)	
Field Observations:				\neg
Surface Water Present? Yes Nox Depth (inches	s):			
Water Table Present? Yes No _x _ Depth (inches				
Saturation Present? Yes No _x _ Depth (inches		land Hydrology Presen	it? Yes No x	
(includes capillary fringe)				=
Describe Recorded Data (stream gauge, monitoring well, aerial phot	os, previous inspections),	if available:		
Pamadra				-
Remarks:				
Ť				1

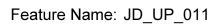
	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft)		Species?		Number of Dominant Species
Quercus alba, Northern White Oak	40	<u>Yes</u>	FACU	That Are OBL, FACW, or FAC:1 (A)
2. <u>Carya ovata, Shag-Bark Hickory</u>	20	<u>Yes</u>	<u>FACU</u>	Total Number of Dominant
3. <u>Liquidambar styraciflua, Sweet-Gum</u>	15	<u>No</u>	<u>FAC</u>	Species Across All Strata:4(B)
4. Pinus taeda, Loblolly Pine	10	No	FAC	
5. Acer rubrum, Red Maple	10	No	FAC	Percent of Dominant Species That Are OBL, FACW, or FAC: 25.0% (A/B)
6.				That Ale OBE, FACTO, OF FAC. (Alb)
	95	= Total Cov	er	Prevalence Index worksheet:
50% of total cover: 47.5				Total % Cover of: Multiply by:
	20 % 01	total cover		OBL species0 x 1 =0
Sapling Stratum (Plot size: 30 ft)				FACW species60 x 2 =120
1. <u>N/A</u>				FAC species40 x 3 =120
2				FACU species65 x 4 =260
3				UPL species 0 x 5 = 0
4				
5				Column Totals: <u>165</u> (A) <u>500</u> (B)
6				Prevalence Index = B/A =3.03
		= Total Cov		Hydrophytic Vegetation Indicators:
50% of total cover:0	20% of	total cover	0	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft)				2 - Dominance Test is >50%
1. Carya ovata, Shag-Bark Hickory	5	<u>Yes</u>	<u>FACU</u>	3 - Prevalence Index is ≤3.0¹
2				Problematic Hydrophytic Vegetation¹ (Explain)
3				Troblemade Tryarophytic Tegetation (Explain)
4.				1
5				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				Definitions of Five Vegetation Strata:
6				Definitions of Five Vegetation Strata.
		= Total Cov		Tree – Woody plants, excluding woody vines,
50% of total cover: 2.5	20% of	total cover	1	approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: 30 ft)				(7.6 cm) or larger in diameter at breast height (DBH).
1. Arundinaria tecta, Switch Cane	60	<u>Yes</u>	FACW	Sapling – Woody plants, excluding woody vines,
2. Pinus taeda, Loblolly Pine	5	<u>No</u>	FAC	approximately 20 ft (6 m) or more in height and less
3				than 3 in. (7.6 cm) DBH.
4				Shrub - Woody plants, excluding woody vines,
5.				approximately 3 to 20 ft (1 to 6 m) in height.
6				Herb – All herbaceous (non-woody) plants, including
7.				herbaceous vines, regardless of size, and woody
				plants, except woody vines, less than approximately
8				3 ft (1 m) in height.
9				Woody vine – All woody vines, regardless of height.
10				
11				
	65	= Total Cov	er	
50% of total cover: <u>32.5</u>	20% of	total cover	13	
Woody Vine Stratum (Plot size: 30 ft)				
1. N/A				
2				
3				
4				
5				Hydrophytic
		= Total Cov	er	Vegetation Present?
50% of total cover:0	20% of	total cover	0	Present? Yes Nox
Remarks: (If observed, list morphological adaptations belo	w).			•

Sampling Point: JD UP 011

SolL Sampling Point: JD_UP_011

Depth Matrix Redox Features (inches) Color (moist) % Type¹ Loc² Texture Remarks
0-3 2.5YR 2/2 100% Loam
3-16 10YR 3/3 100% Clay loam
16-20 10YR 4/2 100% Clay loam
10-20 101K 4/2 100% Clay Ioanii
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils ³ :
Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O)
Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (outside MLRA 150)
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S
Stratified Layers (A5) Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20)
Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B)
5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12)
Nuck Presence (A6) (LRR U) Redox Depressions (F6) Very Shahow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (Explain in Remarks)
Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151)
Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T) ³ Indicators of hydrophytic vegetation and
Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) wetland hydrology must be present,
Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) unless disturbed or problematic. Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B)
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A)
Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)
Dark Surface (S7) (LRR P, S, T, U)
Restrictive Layer (if observed):
Type:
Depth (inches): No _x
Remarks:

Date: 5/18/21







Photograph Direction North

Comments:

Photograph Direction South

Comments:





Photograph Direction East

Comments:

Photograph Direction West

U.S. Army Corps of Engineers

WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region

See ERDC/EL TR-10-20; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)

Project/Site: Dominion CVOW	City/County: Virginia B	Seach Sampling Date: 12/20/2021
Applicant/Owner: Dominion		State: VA Sampling Point: JC_W_101_WET
Investigator(s): James Cook	Section, Township, Range:	N/a
Landform (hillside, terrace, etc.):	Local relief (concave, convex,	none): Concave Slope (%): 2
Subregion (LRR or MLRA): LRR P, MLRA		76.004191 Datum: NAD83
Soil Map Unit Name: Tomotley Loam		NWI classification: N/a
Are climatic / hydrologic conditions on the sit	te typical for this time of year? Yes x	No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydro	ologysignificantly disturbed? Are "Normal C	Circumstances" present? Yes x No
Are Vegetation , Soil , or Hydro		plain any answers in Remarks.)
	h site map showing sampling point locati	
Hydrophytic Vegetation Present?	Yes X No Is the Sampled Area	
Hydric Soil Present?	Yes X No within a Wetland?	Yes X No
Wetland Hydrology Present?	Yes X No	
Wetianu Status was likely Greated of Enason	erbated by the presence of the easemtn. Soil was com	pacted with clear presense or ruthing
HYDROLOGY		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is requ		Surface Soil Cracks (B6)
Surface Water (A1)	Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Marl Deposits (B15) (LRR U)	Drainage Patterns (B10)
Saturation (A3)	Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1)	X Oxidized Rhizospheres on Living Roots (C3)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3)	Recent Iron Reduction in Tilled Soils (C6)	X Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Iron Deposits (B5)	Thin Muck Surface (C7) Other (Explain in Remarks)	Geomorphic Position (D2) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B		X FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	'')	Sphagnum Moss (D8) (LRR T, U)
Field Observations:		
Surface Water Present? Yes	No Depth (inches):	
Water Table Present? Yes	No Depth (inches):	
Saturation Present? Yes X		Hydrology Present? Yes X No
(includes capillary fringe)		
Describe Recorded Data (stream gauge, m	onitoring well, aerial photos, previous inspections), if a	vailable:
Remarks:		

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

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:30) 1.	% COVE	Species?	Status	
2				Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)
-				···
3.				Total Number of Dominant
4.				Species Across All Strata: 4 (B)
5.				Percent of Dominant Species
6.		T : 10222		That Are OBL, FACW, or FAC: 100.0% (A/B)
F00/ of total accord		=Total Cover		Prevalence Index worksheet:
50% of total cover:	20%	of total cover:		Total % Cover of: Multiply by:
Sapling Stratum (Plot size: 30)	_			OBL species 80 x 1 = 80
Liquidambar styraciflua	5	Yes	FAC	FACW species 5 x 2 = 10
2.				FAC species10 x 3 =30
3				FACU species 0 x 4 = 0
4				UPL species 0 x 5 = 0
5				Column Totals: 95 (A) 120 (B)
6.				Prevalence Index = B/A = 1.26
	5 :	=Total Cover		Hydrophytic Vegetation Indicators:
50% of total cover:	3 20%	of total cover:	1	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size:)				X 2 - Dominance Test is >50%
1.				X 3 - Prevalence Index is ≤3.0 ¹
2.				Problematic Hydrophytic Vegetation ¹ (Explain)
3.				<u> </u>
4.				
5. 6.				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
		=Total Cover		Definitions of Five Vegetation Strata:
50% of total cover:	20%	of total cover:		Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 30)				approximately 20 ft (6 m) or more in height and 3 in.
1. Juncus effusus	40	Yes	OBL	(7.6 cm) or larger in diameter at breast height (DBH).
2. Scirpus cyperinus	40	Yes	OBL	Sapling – Woody plants, excluding woody vines,
Solidago gigantea	5	No	FACW	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.				
8.				Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, <u>and</u> 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 vines, regardless of height.
		=Total Cover		
	43 20%	of total cover:	17	
Woody Vine Stratum (Plot size:)				
Smilax rotundifolia	5	Yes	FAC	
2				
3.				
4.				
5				Hydrophytic
	5	=Total Cover		Vegetation
50% of total cover:	2 200/			_
	3 20%	of total cover:	1	Present? Yes X No No

Sampling Point: JC_W_101_WET

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

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

Sampling Point: JC_W_101_WET

SOIL Sampling Point: <u>JC_W_101_WET</u>

Profile Desc	ription: (Describe to	o the dep	th needed to docu	ment th	ne indica	tor or co	onfirm the absence of	of indicators.)		
Depth	Matrix		Redox	r Featur	es					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks		
0-3	7.5YR 4/1	100					Loamy/Clayey			
3-10	7.5YR 4/1	60	5YR 4/4	10	C	PL/M	Loamy/Clayey	Prominent redox concentrations		
10-20	2.5Y 6/1	90	7.5YR 5/8	10	С	M	Loamy/Clayey	Spodosol		
			_							
¹Type: C=C	oncentration, D=Deple	etion, RM=	Reduced Matrix, N	IS=Mas	ked San	d Grains.	² Location: F	PL=Pore Lining, M=Matrix.		
	Indicators: (Applical							for Problematic Hydric Soils ³ :		
Histosol	(A1)		Thin Dark Su	rface (S	9) (LRR	S, T, U)	1 cm M	uck (A9) (LRR O)		
Histic Ep	pipedon (A2)		Barrier Island	ls 1 cm	Muck (S	12)	2 cm M	uck (A10) (LRR S)		
Black Hi	stic (A3)		(MLRA 15	3B, 153	D)		? Coast P	Prairie Redox (A16)		
Hydroge	n Sulfide (A4)		Loamy Muck	y Minera	al (F1) (L	RR O)	(outs	ide MLRA 150A)		
Stratified	d Layers (A5)		Loamy Gleye	d Matri	x (F2)			d Vertic (F18)		
	Bodies (A6) (LRR P,	-	X Depleted Ma	` '			`	ide MLRA 150A, 150B)		
	ıcky Mineral (A7) (LR I		Redox Dark		` '			nt Floodplain Soils (F19) (LRR P, T)		
	esence (A8) (LRR U)		Depleted Dar		` '			malous Bright Floodplain Soils (F20)		
	ick (A9) (LRR P, T)		? Redox Depre		(F8)			A 153B)		
	d Below Dark Surface	(A11)	Marl (F10) (L	-	() (A.I. D.			rent Material (F21)		
	ark Surface (A12)	I D A 450A	Depleted Och			-	Very Shallow Dark Surface (F22)			
	rairie Redox (A16) (M i									
	lucky Mineral (S1) (Li Bleyed Matrix (S4)	XX (), (3)	Umbric Surfa Delta Ochric			-	Barrier Islands Low Chroma Matrix (TS7) (MLRA 153B, 153D)			
	ledox (S5)		Reduced Ver			-		Explain in Remarks)		
	Matrix (S6)		Piedmont Flo	•				Explain in Remarks)		
	rface (S7) (LRR P, S,	T. U)	Anomalous E							
	e Below Surface (S8)	-	(MLRA 14	-				ors of hydrophytic vegetation and		
	S, T, U)		Very Shallow					wetland hydrology must be present,		
,	, , ,		(MLRA 13					s disturbed or problematic.		
Restrictive	Layer (if observed):		· · · · · · · · · · · · · · · · · · ·	-		•		·		
Type:										
Depth (ii	nches):						Hydric Soil Prese	nt? Yes X No		
Remarks:										
Layer 3/10 a	lso had 7.5YR 6/1 dep	pletions w	thin layer (30%)							

Date: 12/20/21

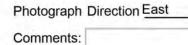
Feature Name: JC_W_101





Photograph Direction North

Comments:







Photograph Direction South

Comments:



Photograph Direction West

U.S. Army Corps of Engineers

WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region

See ERDC/EL TR-10-20; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)

Project/Site: Dominion CVOW	City/County: Virginia B	Sampling Date: 12/20/2021
Applicant/Owner: Dominion		State: VA Sampling Point: JC_W_101_UP
Investigator(s): James Cook	Section, Township, Range:	N/a
Landform (hillside, terrace, etc.):	Local relief (concave, convex,	none): Concave Slope (%): 2
Subregion (LRR or MLRA): LRR P, MLRA 1		76.004191 Datum: NAD83
Soil Map Unit Name: Tomotley Loam	<u> </u>	NWI classification: N/a
Are climatic / hydrologic conditions on the site	e typical for this time of year? Yes x	No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydro		Circumstances" present? Yes x No
Are Vegetation, Soil, or Hydro		plain any answers in Remarks.)
	site map showing sampling point location	
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X No Is the Sampled Area within a Wetland? Yes No X	Yes No_X_
Remarks: Pine Forest		
HYDROLOGY		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is requi	red: check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Marl Deposits (B15) (LRR U)	Drainage Patterns (B10)
Saturation (A3)	Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1)	Oxidized Rhizospheres on Living Roots (C3)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3)	Recent Iron Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5)	Other (Explain in Remarks)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B	<u>')</u>	X FAC-Neutral Test (D5)
Water-Stained Leaves (B9)		Sphagnum Moss (D8) (LRR T, U)
Field Observations:		
Surface Water Present? Yes	No x Depth (inches):	
Water Table Present? Yes	No x Depth (inches):	
Saturation Present? Yes	No x Depth (inches): Wetland	Hydrology Present? Yes No _X
(includes capillary fringe)		
	onitoring well, aerial photos, previous inspections), if a	vailable:
Remarks: No apparent hydrology beyond fac-neutral to	est. Area is likely fringe/marginal and on the transition	al line.

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

	Absolute	Dominant	Indicator	
<u>Tree Stratum</u> (Plot size:)	% Cover	Species?	Status	Dominance Test worksheet:
1. Pinus taeda	60	Yes	FAC	Number of Dominant Species
2. Liquidambar styraciflua	10	No	FAC	That Are OBL, FACW, or FAC: (A)
3. Acer rubrum	10	No	FAC	Total Number of Dominant
4.				Species Across All Strata: 5 (B)
5.				Percent of Dominant Species
6.				That Are OBL, FACW, or FAC: 100.0% (A/B)
	80 =	=Total Cover		Prevalence Index worksheet:
50% of total cover: 4	10 20%	of total cover:	16	Total % Cover of: Multiply by:
Sapling Stratum (Plot size: 30)		•		OBL species 0 x 1 = 0
1. Pinus taeda	20	Yes	FAC	FACW species 30 x 2 = 60
Liquidambar styraciflua	10	Yes	FAC	FAC species 115 x 3 = 345
3.		100	1710	FACU species 0 x 4 = 0
4				· — —
5.				Column Totals: 145 (A) 405 (B)
6				Prevalence Index = B/A = 2.79
	30 =	=Total Cover		Hydrophytic Vegetation Indicators:
50% of total cover:1	15 20%	of total cover:	6	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size:)				X 2 - Dominance Test is >50%
1.				3 - Prevalence Index is ≤3.0 ¹
2.				Problematic Hydrophytic Vegetation ¹ (Explain)
3.				<u> </u>
4.				
5.				1
				¹ Indicators of hydric soil and wetland hydrology must be
6		T-1-1-0		present, unless disturbed or problematic.
		=Total Cover		Definitions of Five Vegetation Strata:
50% of total cover:	20%	of total cover:		Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size:)				approximately 20 ft (6 m) or more in height and 3 in.
Arundinaria gigantea	30	Yes	FACW	(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.
T.				than 3 iii. (7.0 cm) DDH.
5.				
5.				Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
5 6				Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
5. 6. 7.				Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including
5				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
5. 6. 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
5. 6. 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 ft (1 m) in height.
5. 6. 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
5. 6. 7. 8. 9. 10.	30 =	=Total Cover		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.
5. 6. 7. 8. 9. 10. 11.		=Total Cover	6	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.
5. 6. 7. 8. 9. 10. 11.			6	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.
5. 6. 7. 8. 9. 10. 11. 50% of total cover: 1			6 FAC	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.
5.	15 20%	of total cover:		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.
5. 6. 7. 8. 9. 10. 11. 50% of total cover: 1 Woody Vine Stratum (Plot size: 30) 1. Smilax rotundifolia 2.	15 20%	of total cover:		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.
5.	15 20%	of total cover:		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.
5.	15 20%	of total cover:		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.
5.	5	Yes		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
5.	5 5	Yes Total Cover		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
5.	5 5	Yes		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

Sampling Point: JC_W_101_UP

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

<u>Tree Stratum</u> (Plot size:)	Absolute Dominant Indicato % Cover Species? Status	
1		Number of Dominant Species
2.		That Are OBL, FACW, or FAC:(A)
3. 4.		Total Number of Dominant Species Across All Strata: (B)
5.		<u> </u>
6		 Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
7.		Prevalence Index worksheet:
8.		Total % Cover of: Multiply by:
	=Total Cover	OBL species x 1 =
50% of total cover:		FACW species x 2 =
Sapling/Shrub Stratum (Plot size:)		FAC species x 3 =
1.		FACU species x 4 =
2.		UPL species x 5 =
3.		Column Totals: (A) (B)
4.		Prevalence Index = B/A =
5.		Hydrophytic Vegetation Indicators:
6.		1 - Rapid Test for Hydrophytic Vegetation
7.		2 - Dominance Test is >50%
8.		3 - Prevalence Index is ≤3.0 ¹
	=Total Cover	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:	20% of total cover:	
Herb Stratum (Plot size:)		
1.		¹Indicators of hydric soil and wetland hydrology must be
2.		present, unless disturbed or problematic.
3.		Definitions of Four Vegetation Strata:
4.		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
5		more in diameter at breast height (DBH), regardless of
6.		height.
7.		Sapling/Shrub – Woody plants, excluding vines, less
8		than 3 in. DBH and greater than 3.28 ft (1 m) tall.
9		_
10		Herb – All herbaceous (non-woody) plants, regardless
11		of size, and woody plants less than 3.28 ft tall.
12.		
		_
	=Total Cover	Woody Vine – All woody vines greater than 3.28 ft in
50% of total cover:		Woody Vine – All woody vines greater than 3.28 ft in height.
50% of total cover: Woody Vine Stratum (Plot size:)		, ,
50% of total cover: Woody Vine Stratum (Plot size:) 1.	20% of total cover:	, ,
50% of total cover: Woody Vine Stratum (Plot size:) 1 2	20% of total cover:	, ,
50% of total cover: Woody Vine Stratum (Plot size:) 1. 2. 3.	20% of total cover:	, ,
50% of total cover:	20% of total cover:	, ,
50% of total cover:) 1	20% of total cover:	, ,
50% of total cover:	20% of total cover: =Total Cover	height. Hydrophytic Vegetation
50% of total cover: Woody Vine Stratum (Plot size:) 1 2 3 4	20% of total cover:	height. Hydrophytic
50% of total cover:	=Total Cover 20% of total cover:	height. Hydrophytic Vegetation
50% of total cover:	=Total Cover 20% of total cover:	height. Hydrophytic Vegetation
50% of total cover:	=Total Cover 20% of total cover:	height. Hydrophytic Vegetation
50% of total cover:	=Total Cover 20% of total cover:	height. Hydrophytic Vegetation

Sampling Point: JC_W_101_UP

SOIL Sampling Point: <u>JC_W_101_UP</u>

	ription: (Describe t	o the dep				ator or co	onfirm the absence	of indicators.)	
Depth	Matrix			x Featur		. 2	- .	5	
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks	
0-3							Peat	Duff	
3-6	10YR 3/1	100					Loamy/Clayey		
6-14	10YR 7/1	100					Loamy/Clayey	Spodosol	
14-20	10YR 7/1	99	2.5Y 7/3	1	<u> </u>	<u>M</u>	Loamy/Clayey Distinct redox concentration		
	oncentration, D=Deple					d Grains.		PL=Pore Lining, M=Matrix.	
-	ndicators: (Applical	ble to all L			-			for Problematic Hydric Soils ³ :	
Histosol			Thin Dark Su			-		luck (A9) (LRR O)	
	ipedon (A2)		Barrier Island		,	12)		luck (A10) (LRR S)	
Black His	` ,		(MLRA 15		-			Prairie Redox (A16)	
	n Sulfide (A4)		Loamy Muck	-		.RR O)	•	ide MLRA 150A)	
	Layers (A5)		Loamy Gleye					ed Vertic (F18)	
? Organic I	Bodies (A6) (LRR P,	T, U)	X Depleted Ma	trix (F3))		(outs	ide MLRA 150A, 150B)	
5 cm Mu	cky Mineral (A7) (LR	R P, T, U)	Redox Dark	Surface	(F6)		Piedmo	ont Floodplain Soils (F19) (LRR P, T)	
Muck Pre	esence (A8) (LRR U)		Depleted Da				Anoma	lous Bright Floodplain Soils (F20)	
1 cm Mu	ck (A9) (LRR P, T)		Redox Depre	essions	(F8)		(MLR	A 153B)	
X Depleted	Below Dark Surface	(A11)	Marl (F10) (L	.RR U)			Red Pa	arent Material (F21)	
Thick Da	rk Surface (A12)		Depleted Oc	hric (F1	1) (MLR	A 151)	Very SI	hallow Dark Surface (F22)	
Coast Pr	airie Redox (A16) (M	LRA 150A	.)Iron-Mangan	ese Ma	sses (F1	2) (LRR (O, P, T) (outs	ide MLRA 138, 152A in FL, 154)	
Sandy M	ucky Mineral (S1) (LI	RR O, S)	Umbric Surfa	ace (F13	3) (LRR F	P, T, U)	Barrier	Islands Low Chroma Matrix (TS7)	
Sandy G	leyed Matrix (S4)		Delta Ochric	(F17) (I	MLRA 15	51)	(MLR	A 153B, 153D)	
Sandy R	edox (S5)		Reduced Ve	rtic (F18	B) (MLRA	150A, 1	50B) Other (Explain in Remarks)	
Stripped	Matrix (S6)		Piedmont Flo	oodplain	Soils (F	19) (MLR	A 149A)		
Dark Sur	face (S7) (LRR P, S,	T, U)	Anomalous I	Bright Fl	oodplain	Soils (F2	•		
Polyvalue	e Below Surface (S8))	(MLRA 14	9A, 153	C, 153D)	³ Indicat	tors of hydrophytic vegetation and	
(LRR S	S, T, U)		Very Shallow	Dark S	Surface (F	⁻ 22)	wetla	and hydrology must be present,	
			(MLRA 13	8, 152A	in FL, 1	54)	unles	ss disturbed or problematic.	
	ayer (if observed):								
Type:								40 V V N	
Depth (in	nches):						Hydric Soil Prese	ent? Yes X No	
Remarks:									

Date: 12/20/21

Feature Name: JC_W_101 UP





Photograph Direction North

Comments:



Comments:





Photograph Direction South

Comments:



Photograph Direction West

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Dominion CVOW	City/County: Virgin	ia Beach/Virginia Beach	Sampling Date:	2/15/2022
Applicant/Owner: Dominion		State: VA	Sampling Point: JC	C-W-1001
Investigator(s): J.Cook, E. Deck	Section, Township,	Range: N/a		
Landform (hillslope, terrace, etc.):			Slope	(%): <u>1</u>
Subregion (LRR or MLRA): MLRA 153B of LRR T Lat:				
Soil Map Unit Name: Acredale Silt Loam				
Are climatic / hydrologic conditions on the site typical for this time of ye				
Are Vegetation, Soil, or Hydrology significantly				No
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (I	f needed, explain any answe	ers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map showing		nt locations, transects	s, important fea	tures, etc.
Hydrophytic Vegetation Present? Yes x No				
Hydric Soil Present? Yesx No	is the Samp			
Wetland Hydrology Present? Yes x No No	within a We	tland? Yesx	No	
Remarks:			Observed Classifi	cations:
Wetland bisected by berm along the easement, largely PFO wit	h small PEM offsho	ot. Entire feature	Cowardin: PFO	
mapped as PFO				
HYDROLOGY				
Wetland Hydrology Indicators:		Secondary Indica	ators (minimum of tw	vo required)
Primary Indicators (minimum of one is required; check all that apply)		Surface Soil	Cracks (B6)	
Surface Water (A1) Aquatic Fauna (B1	3)	Sparsely Ve	getated Concave Su	ırface (B8)
High Water Table (A2) Marl Deposits (B1		Drainage Pa	atterns (B10)	
Saturation (A3) Hydrogen Sulfide		Moss Trim L	ines (B16)	
Water Marks (B1) Oxidized Rhizosph	neres along Living Ro	oots (C3) Dry-Season	Water Table (C2)	
Sediment Deposits (B2) Presence of Redu	ced Iron (C4)	Crayfish Bur	rows (C8)	
Drift Deposits (B3) Recent Iron Reduc	tion in Tilled Soils (C		isible on Aerial Imag	gery (C9)
Algal Mat or Crust (B4) Thin Muck Surface	€ (C7)	_x Geomorphic	Position (D2)	
Iron Deposits (B5) Other (Explain in F	(emarks)	Shallow Aqu		
Inundation Visible on Aerial Imagery (B7)		_x_ FAC-Neutra		
Water-Stained Leaves (B9)		Sphagnum r	moss (D8) (LRR T, L	J)
Field Observations:				
Surface Water Present? Yes No _x Depth (inches	I			
Water Table Present? Yes No _x Depth (inches				
Saturation Present? Yes No _x Depth (inches (includes capillary fringe)	;):	Wetland Hydrology Preser	nt? Yes <u>x</u>	No
Describe Recorded Data (stream gauge, monitoring well, aerial phot	os, previous inspecti	ons), if available:		
Remarks:				
Unable to dig to determine primary indicators, hydrology is me	t with secondary in	dicators.		
1				-

_		Dominant		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30 ft</u>)	% Cover	Species'	? <u>Status</u>	Number of Dominant Species
Liquidambar styraciflua, Sweet-Gum	35	Yes	FAC	That Are OBL, FACW, or FAC:8 (A)
2. Pinus taeda, Loblolly Pine	20	Yes	<u>FAC</u>	Total Number of Dominant
3				Species Across All Strata: 10 (B)
4				
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 80.0% (A/B)
6				That Are OBL, FACW, or FAC: 80.0% (A/B)
0		= Total Co		Prevalence Index worksheet:
500/ 5/// 27.5				Total % Cover of: Multiply by:
50% of total cover: <u>27.5</u>	20% of	total cove	r:11	OBL species x 1 =10
Sapling Stratum (Plot size: 30 ft)				FACW species34 x 2 =68
1. Pinus taeda, Loblolly Pine				FAC species
2. <u>Liquidambar styraciflua, Sweet-Gum</u>	5	Yes	<u>FAC</u>	-
3				FACU species x 4 =16
4				UPL species0 x 5 =0
5.				Column Totals:123 (A)319 (B)
6				2.50
·		= Total Co		Prevalence Index = B/A =2.59
500/-51-1-1				Hydrophytic Vegetation Indicators:
50% of total cover: 10	20% of	total cove	r: <u>4</u>	1 - Rapid Test for Hydrophytic Vegetation
Shrub Stratum (Plot size: 30 ft)				X 2 - Dominance Test is >50%
1				X 3 - Prevalence Index is ≤3.01
2				Problematic Hydrophytic Vegetation¹ (Explain)
3				
4.				¹ Indicators of hydric soil and wetland hydrology must
5				be present, unless disturbed or problematic.
6				Definitions of Five Vegetation Strata:
o				Deminions of tive vegetation strata.
		= Total Co		Tree – Woody plants, excluding woody vines,
50% of total cover: 0	20% of	f total cove	r:0	approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: 30 ft)				(7.6 cm) or larger in diameter at breast height (DBH).
1. Arundinaria tecta, Switch Cane		Yes	FACW	Sapling – Woody plants, excluding woody vines,
2. Phragmites australis, Common Reed	15	Yes	FACW	approximately 20 ft (6 m) or more in height and less
3. Gramminoid sp	10	Yes		than 3 in. (7.6 cm) DBH.
4. Juncus effusus, Lamp Rush	10	Yes	OBL	Shrub - Woody plants, excluding woody vines,
5.				approximately 3 to 20 ft (1 to 6 m) in height.
6				Herb – All herbaceous (non-woody) plants, including
				herbaceous vines, regardless of size, and woody
7				plants, except woody vines, less than approximately
8				3 ft (1 m) in height.
9			· ——	Woody vine – All woody vines, regardless of height.
10				, and the same of
11				
	50	= Total Co	ver	
50% of total cover: 25	20% of	f total cove	r: <u>10</u>	
Woody Vine Stratum (Plot size: 30 ft)				
Lonicera japonica, Japanese Honeysuckle	4	Yes	FACU	
Smilax laurifolia, Laurel-Leaf Greenbrier				
'			TACVV	
3				
4				
5				Hydrophytic
	8	= Total Co	ver	Vegetation No. No.
50% of total cover: 4	20% of	f total cove	r: <u>1.6</u>	Present? Yes * No
Remarks: (If observed, list morphological adaptations belo				ı
, , , , , , , , , , , , , , , , , , , ,	,			

Sampling Point: JC-W-1001

SolL Sampling Point: <u>JC-W-1001</u>

		•	needed to docu		iiiaioatoi t		the absence of	mulcators.	
Depth	Matrix		Redo	x Feature	s				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
l ———									
1							2		
	Concentration, D=Depl					ains.		L=Pore Lining, M=Matrix.	. 3
Hydric Soi	I Indicators: (Applica	able to all L	RRs, unless othe	rwise not	ed.)		Indicators fo	or Problematic Hydric So	ils":
Histose	ol (A1)		Polyvalue Be	elow Surfa	ice (S8) (L	RR S, T, U) 1 cm Mu	ck (A9) (LRR O)	
Histic I	Epipedon (A2)		Thin Dark St	urface (S9) (LRR S,	T, U)	2 cm Mu	ck (A10) (LRR S)	
	Histic (A3)		Loamy Muck	ky Mineral	(F1) (LRR	O)	Reduced	l Vertic (F18) (outside ML	RA 150A,B)
Hydrog	jen Sulfide (A4)		Loamy Gley	ed Matrix	(F2)		Piedmon	t Floodplain Soils (F19) (L	RR P, S, T)
Stratifie	ed Layers (A5)		Depleted Ma	atrix (F3)			Anomalo	us Bright Loamy Soils (F2	0)
Organi	c Bodies (A6) (LRR P,	T, U)	Redox Dark	Surface (I	F6)		(MLRA	(153B)	
5 cm N	lucky Mineral (A7) (LR	R P, T, U)	Depleted Da	rk Surface	e (F7)		Red Pare	ent Material (TF2)	
Muck F	Presence (A8) (LRR U))	Redox Depr					allow Dark Surface (TF12)	
ı —	luck (A9) (LRR P, T)		Marl (F10) (I					xplain in Remarks)	
	ed Below Dark Surface	(A11)	Depleted Oc		(MLRA 15	51)		. ,	
I — ·	Dark Surface (A12)	(,	Iron-Mangar	, ,	•	•	T) ³ Indicat	ors of hydrophytic vegetat	on and
1 —	Prairie Redox (A16) (M	ILRA 150A)	_				,	nd hydrology must be pres	
_	Mucky Mineral (S1) (L	•	Delta Ochric			, -,		s disturbed or problematic	
	Gleyed Matrix (S4)	, -,	Reduced Ve			OA. 150B)		o anotal a or productina a	
ı —	Redox (S5)		Piedmont Fl						
ı —	ed Matrix (S6)						A 149A, 153C, 1	53D)	
	a matrix (00)			Drigin Loa	1119 00110 (1	20) (111211)	14071, 1000, 1		
Dark S	urface (S7) (IRR P.S	T 11\							
	urface (S7) (LRR P, S	, T, U)					T		
Restrictive	Layer (if observed):								
Restrictive	Layer (if observed):		_						
Restrictive	Layer (if observed):						Hydric Soil P	resent? Yes <u>×</u>	No
Restrictive	Layer (if observed):						Hydric Soil P	resent? Yes <u>×</u>	No
Restrictive Type: Depth (i	Layer (if observed):		_				Hydric Soil P	resent? Yes <u>x</u>	No
Restrictive Type: Depth (i	Layer (if observed):		_				Hydric Soil P	resent? Yes <u>x</u>	No
Restrictive Type: Depth (i	Layer (if observed):		_				Hydric Soil P	resent? Yes <u>x</u>	No
Restrictive Type: Depth (i	Layer (if observed):		_				Hydric Soil P	resent? Yes <u>×</u>	No
Restrictive Type: Depth (i	Layer (if observed):		_				Hydric Soil P	resent? Yes <u>×</u>	No
Restrictive Type: Depth (i	Layer (if observed):		_				Hydric Soil P	resent? Yes <u>x</u>	No
Restrictive Type: Depth (i	Layer (if observed):		_				Hydric Soil P	resent? Yes <u>x</u>	No
Restrictive Type: Depth (i	Layer (if observed):		_				Hydric Soil P	resent? Yes <u>x</u>	No
Restrictive Type: Depth (i	Layer (if observed):		_				Hydric Soil P	resent? Yes <u>x</u>	No
Restrictive Type: Depth (i	Layer (if observed):		_				Hydric Soil P	resent? Yes <u>x</u>	No
Restrictive Type: Depth (i	Layer (if observed):		_				Hydric Soil P	resent? Yes <u>x</u>	No
Restrictive Type: Depth (i	Layer (if observed):		_				Hydric Soil P	resent? Yes <u>x</u>	No
Restrictive Type: Depth (i	Layer (if observed):		_				Hydric Soil P	resent? Yes <u>x</u>	No
Restrictive Type: Depth (i	Layer (if observed):		_				Hydric Soil P	resent? Yes <u>x</u>	No
Restrictive Type: Depth (i	Layer (if observed):		_				Hydric Soil P	resent? Yes <u>x</u>	No
Restrictive Type: Depth (i	Layer (if observed):		_				Hydric Soil P	resent? Yes <u>x</u>	No
Restrictive Type: Depth (i	Layer (if observed):		_				Hydric Soil P	resent? Yes x	No
Restrictive Type: Depth (i	Layer (if observed):		_				Hydric Soil P	resent? Yesx	No
Restrictive Type: Depth (i	Layer (if observed):		_				Hydric Soil P	resent? Yesx	No
Restrictive Type: Depth (i	Layer (if observed):		_				Hydric Soil P	resent? Yesx	No
Restrictive Type: Depth (i	Layer (if observed):		_				Hydric Soil P	resent? Yesx	No
Restrictive Type: Depth (i	Layer (if observed):		_				Hydric Soil P	resent? Yesx	No
Restrictive Type: Depth (i	Layer (if observed):		_				Hydric Soil P	resent? Yesx	No
Restrictive Type: Depth (i	Layer (if observed):		_				Hydric Soil P	resent? Yesx	No
Restrictive Type: Depth (i	Layer (if observed):		_				Hydric Soil P	resent? Yesx	No

Date: 2/15/22

Feature Name: JC_W_1001





Photograph Direction North

Comments:

Photograph Direction East

Comments:





Photograph Direction South

Comments:



Photograph Direction West

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: Dominion CVOW	City/County: Virginia Beach/Virginia Be	ach Sampling Date: 2/15/2022			
Applicant/Owner: Dominion	State: VA	Sampling Point: JC-W-1001-Up			
Investigator(s): J.Cook, E. Deck	Section, Township, Range: N/a				
Landform (hillslope, terrace, etc.): Hillslope	Local relief (concave, convex, none): Con	nvex Slope (%): 6			
Subregion (LRR or MLRA): MLRA 153B of LRR T Lat:					
Soil Map Unit Name: Acredale silt loam					
Are climatic / hydrologic conditions on the site typical for this time of you					
Are Vegetationx, Soil, or Hydrology significantly					
Are Vegetation, Soil, or Hydrology naturally pr					
SUMMARY OF FINDINGS – Attach site map showing		sects, important features, etc.			
Hydrophytic Vegetation Present? Yes No x					
Hydric Soil Present? Yes No _x	Is the Sampled Area				
Wetland Hydrology Present? Yes Nox	within a Wetland? Ye	es Nox			
Remarks:		Observed Classifications:			
Berm developed within easement, likely placed over previous v	vetland but unable to confirm. Largely	Cowardin: <u>Upland</u>			
mowed with difficult vegetation ID.					
HYDROLOGY					
Wetland Hydrology Indicators:	Secondar	y Indicators (minimum of two required)			
Primary Indicators (minimum of one is required; check all that apply)	Surfa	ce Soil Cracks (B6)			
Surface Water (A1) Aquatic Fauna (B1		sely Vegetated Concave Surface (B8)			
High Water Table (A2) Marl Deposits (B1		Drainage Patterns (B10)			
Saturation (A3) Hydrogen Sulfide		Moss Trim Lines (B16)			
		Season Water Table (C2)			
Sediment Deposits (B2) Presence of Redu		ish Burrows (C8)			
		ration Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4) Thin Muck Surface	. ,	norphic Position (D2)			
Iron Deposits (B5) Other (Explain in F		ow Aquitard (D3)			
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	_	Neutral Test (D5) gnum moss (D8) (LRR T, U)			
Field Observations:	Зрпа	gridin moss (Do) (ERR 1, 0)			
Surface Water Present? Yes No _x Depth (inches	a)·				
Water Table Present? Yes No _x Depth (inches					
Saturation Present? Yes No _x Depth (inches		Present? Yes Nox			
(includes capillary fringe)		riesent: res no			
Describe Recorded Data (stream gauge, monitoring well, aerial phot	os, previous inspections), if available:				
Boundary					
Remarks: No apparent hydrology (unable to dig to confirm)					
No apparent hydrology (unable to dig to commin)					

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

_	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 ft		Species?		Number of Dominant Species
1				That Are OBL, FACW, or FAC:0 (A)
2				Total Number of Dominant
3				Species Across All Strata: 2 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
6		= Total Cov		Prevalence Index worksheet:
500/ of total apyor:				Total % Cover of: Multiply by:
50% of total cover: 0	20% 0	total cover.		OBL species15 x 1 =15
Sapling Stratum (Plot size: 30 ft)				FACW species0 x 2 =0
1				FAC species0 x 3 =0
2				FACU species35 x 4 =140
3				UPL species0 x 5 =0
4				Column Totals:50 (A)155 (B)
5				240
6		= Total Cove		Prevalence Index = B/A =3.10
50% of total cover:0				Hydrophytic Vegetation Indicators:
Shrub Stratum (Plot size: 30 ft)	20 70 01	total cover.		1 - Rapid Test for Hydrophytic Vegetation
1				2 - Dominance Test is >50%
2				3 - Prevalence Index is ≤3.0¹
3				Problematic Hydrophytic Vegetation ¹ (Explain)
4				1
5.				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
6				Definitions of Five Vegetation Strata:
·		= Total Cov		
50% of total cover: 0				Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
Herb Stratum (Plot size: 30 ft)	20 70 01	total dover.		(7.6 cm) or larger in diameter at breast height (DBH).
1. Gramminoid sp	30	Yes		Sanling Woody plants evaluding weedy vines
Festuca rubra, Red Fescue				Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
Juncus effusus, Lamp Rush		No		than 3 in. (7.6 cm) DBH.
Cirsium arvense, Canadian Thistle		No		Shrub – Woody plants, excluding woody vines,
5				approximately 3 to 20 ft (1 to 6 m) in height.
6.				Herb – All herbaceous (non-woody) plants, including
7				herbaceous vines, regardless of size, and woody
8.				plants, except woody vines, less than approximately 3 ft (1 m) in height.
9.				
10				Woody vine – All woody vines, regardless of height.
11				
		= Total Cove	 er	
50% of total cover: 40	20% of	f total cover:	16	
Woody Vine Stratum (Plot size: 30 ft)				
1				
2.				
3.				
4.				
5.				Hydrophytic
		= Total Cov	er	Vegetation
50% of total cover: 0				Present? Yes Nox
Remarks: (If observed, list morphological adaptations belo				
Heavily mowed and unable to id grass species	,			

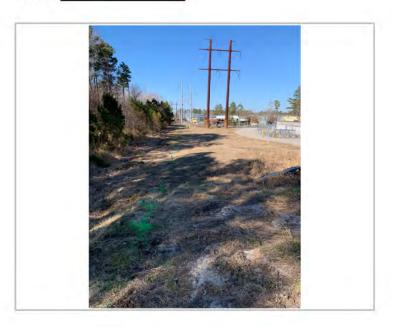
Sampling Point: JC-W-1001-U

SOIL Sampling Point: <u>JC-W-1001-U</u>p

I Tome Des	cription. (Describe t	o the acpuirmed	ieu to aocument	tne indicator (or confirm t	he absence of indicat	ors.)	
Depth	Matrix		Redox Fea	itures				
(inches)	Color (moist)	% Col		6 Type ¹	Loc ²	Texture	Remarks	
1-						2		
	Concentration, D=Depl				ains.	² Location: PL=Pore		
Hydric Soil	Indicators: (Applica						ematic Hydric Soils ³ :	
Histoso	1 /		Polyvalue Below S					
I —	pipedon (A2)		Thin Dark Surface			2 cm Muck (A10)	, ,	
_	listic (A3)		Loamy Mucky Min		O)		F18) (outside MLRA 1 5	
Hydrog	en Sulfide (A4)		Loamy Gleyed Ma	trix (F2)		Piedmont Floodp	lain Soils (F19) (LRR P,	S, T)
_	d Layers (A5)		Depleted Matrix (F	·3)		_	t Loamy Soils (F20)	
	Bodies (A6) (LRR P,		Redox Dark Surfa	, ,		(MLRA 153B)		
_	ucky Mineral (A7) (LR		Depleted Dark Sur	, ,		Red Parent Mate		
Muck P	resence (A8) (LRR U)		Redox Depression			Very Shallow Date	, ,	
	uck (A9) (LRR P, T)		Marl (F10) (LRR U	•		Other (Explain in	Remarks)	
I — ·	d Below Dark Surface	(A11)	Depleted Ochric (F					
ı —	ark Surface (A12)	_	Iron-Manganese M	, , ,	, ,	,	drophytic vegetation an	d
	Prairie Redox (A16) (M		Umbric Surface (F		, U)	-	logy must be present,	
I —	Mucky Mineral (S1) (L	RR O, S)	Delta Ochric (F17)			unless disturb	ed or problematic.	
I —	Gleyed Matrix (S4)	_	Reduced Vertic (F					
I —	Redox (S5)	_	Piedmont Floodpla					
	d Matrix (S6)	_	Anomalous Bright	Loamy Soils (F	F20) (MLRA	149A, 153C, 153D)		
	urface (S7) (LRR P, S	T, U)						
Restrictive	Layer (if observed):							
Туре:								
Depth (ir	nches):					Hydric Soil Present?	Yes No	x
Remarks:								
I	mit, unable to deterr	mine soils						
l tto dig per	init, anabic to acteri							

Date: 2/15/22

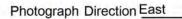
Feature Name: JC-W-1001 UP





Photograph Direction North

Comments:



Comments:





Photograph Direction South

Comments:

Photograph Direction West