Abingdon Woods Wetland Delineation Report





WETLAND DELINEATION REPORT

ABINGDON WOODS HARFORD COUNTY, MARYLAND

July 8, 2019

Prepared For:

CHESAPEAKE REAL ESTATE GROUP

1344 Ashton Road, Suite 105 Hanover, Maryland, 21076

Prepared By:

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GTA Project No: 31171877x1

GEO-TECHNOLOGY ASSOCIATES, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

A Practicing Geoprofessional Business Association Member Firm



July 8, 2019

Chesapeake Real Estate Group 1344 Ashton Road, Suite 105 Hanover, Maryland, 21076

Attn: Mr. Jim Lighthizer

Re: Wetland Delineation Report

Abingdon Woods

Harford County, Maryland

Dear Mr. Lighthizer:

Pursuant to your request, Geo-Technology Associates, Inc. (GTA) has performed a wetland delineation of the above referenced site. The review area is located south of Interstate 95 and west of Abingdon Road in the Abingdon area of Harford County, Maryland. The review area encompasses approximately 330 acres and is identified on Harford County Tax Map 61 as Parcels 158, 178, 529, and 574, and on Tax Map 62 as Parcel 63. The purpose of the review was to evaluate the presence and extent of wetlands and/or waterways with respect to Federal and State regulatory authority. This Report and the accompanying *Wetland Delineation Plan* summarize GTA's findings.

We appreciate the opportunity to have been of service to you. If you have questions or require additional information, please contact this office at (410) 515-9446.

Sincerely,

GEO-FECHNOLOGY ASSOCIATES, INC.

Matthew Jennette Project Scientist

T. Andy Stansfield, Jr.

Vice President

MDP/MAJ/TAS 31171877x1

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WETLAND DELINEATION REPORT

ABINGDON WOODS HARFORD COUNTY, MARYLAND JULY 8, 2019

1.0 INTRODUCTION

The review area is located south of Interstate 95 and west of Abingdon Road in the Abingdon area of Harford County, Maryland. The review area encompasses approximately 330 acres and is identified on Harford County Tax Map 61 as Parcels 158, 178, 529, and 574, and on Tax Map 62 as Parcel 63(Figure 1). Geo-Technology Associates, Inc. (GTA) has been retained to provide a review and delineation of the review area's wetlands and/or "waters of the United States."

At the time of GTA's environmental review, the review area consisted primarily of wooded areas with topography ranging from flat to steep slopes. The approximate latitude and longitude coordinates of the center of the review area is 39.459776° and -76.291469°, respectively.

2.0 DOCUMENT REVIEW

2.1 Site Plans

GTA personnel utilized a base plan provided by Morris & Ritchie Associates, Inc. (MRA) to conduct the field evaluation. The base plan identifies existing property boundaries, structures, roads, tree lines, and contours.

2.2 United States Geological Survey Topographic Map

The United States Geological Survey (USGS) Topographic Map for the area (Edgewood, MD Quadrangle, Figure 2) was used as a reference to identify possible waterways within the review area. USGS topographic maps identify elevations, streams, ponds, and roads. Interstate 95 is depicted along the northern boundary of the review area and Abingdon Road is depicted along the eastern edge of the review area. The USGS Topographic Map depicts Haha Branch as a perennial stream, originating north of the review area and flowing south along the western portion of the review area. The USGS Topographic Map also depicts an unnamed

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intermittent tributary to Haha Branch on the eastern portion of the review area. The unnamed intermittent stream originates within the northern portion of the review area and extends south, beyond the review area where it converges with Haha Branch.

Haha Branch is a tributary to the Bush River. In the vicinity of the review area, nontidal tributaries to Bush River are classified in the Code of Maryland Regulations (COMAR) 26.08.02.08 as Designated Use "Class I: Water Contact Recreation, Protection of Aquatic Life" waters.

2.3 Soil Survey Information

GTA also consulted the U.S. Department of Agriculture, Natural Resources Conservation Service's (NRCS) *Soil Survey*¹ to identify the presence of possible hydric soils. The *Soil Survey* (*Figure 3*) depicts eighteen soil units (*Table 1*) within the review area. According to the NRCS National Hydric Soils List², seven of the soil units within the review area contain hydric components (*Table 1*).

Table 1: Mapped Soil Units

SYMBOL ¹	NAME/DESCRIPTION1	HYDRIC SOIL ²	HYDRIC COMPONENT ²	PERCENTAGE OF MAPPING UNIT ²	POSITION IN LANDSCAPE ²
Av	Alluvial Land	Yes	Alluvial Land	100	Floodplains
BeB	Beltsville silt loam, 2 to 5 percent slopes	Yes	Lenni, undrained	5	Depressions
BeC	Beltsville silt loam, 5 to 10 percent slopes	No			
ChB2	Chillum silt loam, 2 to 5 percent slopes, moderately eroded	No			
DcB	Delanco silt loam, 3 to 8 percent slopes	No			
	Elkton silt loam	Yes	Elkton	85	Fluviomarine Terraces
En			Lenni, undrained	5	Broad interstream divides, depressions
			Fallsington	5	Depressions, Drainageways, Swales

¹ United States Department of Agriculture, Natural Resource Conservation Service, Web Soil Survey. Available online at

http://websoilsurvey.nrcs.usda.gov and accessed on June 27, 2018.

² United States Department of Agriculture, Natural Resource Conservation Service. State Soil Data Access (SDA) Hydric Soils List. Available online at https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcseprd1316619.html#reportref. Accessed June 27, 2018.

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EsB2	Elsinboro loam, 2 to 5 percent slopes, moderately eroded	No			
EsC2	Elsinboro loam, 5 to 10 percent slopes, moderately eroded	No			
			Fallsington, undrained	38	Flats
FgaA	Fallsington loams, 0 to 2 percent slopes, Northern Coastal Plain	Yes	Fallsington, drained	37	Flats
			Othello	5	Flats
			Mullica, undrained	5	Flats
JpC	Joppa gravelly sandy loam, 5 to 10 percent slopes	No			
KpA	Keyport silt loam, 0 to 2 percent slopes	Yes	Lenni, drained	5	Flats
LyB	Loamy and clayey land, 0 to 5 percent slopes	No			
LyD	Loamy and clayey land, 5 to 15 percent slopes	No			
LyE	Loamy and clayey land, 15 to 30 percent slopes	No			
ShaB	Sassafras sandy loam, 2 to 5 percent slopes, Northern Coastal Plain	Yes	Fallsington, drained	4	Flats
SsD	Sassafras and Joppa soils, 10 to 15 percent slopes	No			
SsE	Sassafras and Joppa soils, 15 to 30 percent slopes	No			
WoaB	Woodstown loam, 2 to 5 percent slopes, Northern Coastal Plain	Yes	Fallsington	7	Flats

2.4 Wetland Indicator Maps

GTA's environmental scientists also consulted digital wetland data available from the United States Fish and Wildlife Service's (USFWS) National Wetlands Inventory³ (NWI; *Figure 4*) and from the Maryland Department of Natural Resources⁴ (MD DNR; *Figure 5*)

The NWI Wetlands Map depicts linear riverine and palustrine systems in the western and southern portions of the review area, which appear to correspond with Haha Branch depicted on the USGS Topographic Map. The NWI Wetlands Map also depicts linear riverine, palustrine emergent, and palustrine forested systems on the eastern portion of the review area, which appear to correspond to the unnamed intermittent tributary to Haha Branch depicted on the USGS

³ United States Fish and Wildlife Service, National Wetlands Inventory. Last updated May 2018.

⁴ Maryland Department of Natural Resources Wetlands Inventory. Last updated August 2017.

Topographic Map. A freshwater pond is also depicted on the central portion of the review area. Features depicted on the NWI Wetlands Map are classified by USFWS using the Cowardin system, as detailed in *Table 2*.

Table 2: USFWS NWI Cowardin Designations

SYMBOL ³	SYSTEM ³	SUBSYSTEM ³	CLASS ³	SUBCLASS ³	WATER REGIME ³	SPECIAL MODIFIER
R5UBH	Riverine (R)	Unknown Perennial (5)	Unconsolidated Bottom (UB)	-	Permanently Flooded (H)	-
R4SBC	Riverine (R)	Intermittent (4)	Streambed (SB)	-	Seasonally Flooded (C)	-
PUBHx	Palustrine (P)	-	Unconsolidated Bottom (UB)	-	Permanently Flooded (H)	Excavated (x)
PFO1A	Palustrine (P)	•	Forested (FO)	Broad-Leaved Deciduous (1)	Temporary Flooded (A)	-
PEM5A	Palustrine (P)	-	Emergent (EM)	Phragmites australis (5)	Temporary Flooded (A)	-

The MD DNR Wetlands Map depicts three riverine systems with the review area. Consistent with the NWI Wetlands Map, a riverine system is depicted along the western and southern portions of the review area, which appears to correspond with Haha Branch depicted on the USGS Topographic Map. A riverine system originating beyond the western portion of the review area enters the review area and converges with the riverine system that appears to correspond with Haha Branch. A riverine system is also depicted on the eastern portion of the review area and appears to correlate with the unnamed intermittent tributary to Haha Branch depicted on the USGS Topographic Map.

2.5 Aerial Imagery

GTA reviewed aerial imagery dated 1994, 1998, 2004, 2005, 2007, 2008, 2009, 2011, 2013, 2015, 2017 (*Figure 6*), available from the Harford County Department of Planning and Zoning, Maryland's Environmental Resource & Land Information Network, the National Agricultural Imagery Program, Maryland iMap, and Google Earth. According to aerial imagery reviewed by GTA, the review area has been predominantly wooded since 1994. Haha Branch is apparent along the western portion of the review area. Areas of inundation are apparent on the central portion of the review area on the 2004 aerial imagery reviewed by GTA.

3.0 METHODOLOGY

3.1 General Methodology

The purpose of GTA's review was to evaluate the presence and extent of wetlands and waterways with respect to Federal and State jurisdictional authority. GTA based its evaluation on the United States Army Corps of Engineers' (Corps) definition of "waters of the U.S." and "navigable waters of the U.S.," which are defined in Title 33 Code of Federal Regulations (CFR), Parts 328 and 329. GTA employed the three-parameter approach set forth in the Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-01, dated 1987 (1987 Manual) and the Corps Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (Version 2.0), dated November, 2010 (Supplement) as a reference for delineating wetlands. The methodology of wetland delineation included identifying hydric soil, wetland hydrology, and dominant hydrophytic vegetation. GTA also considered other regulated waters of the United States, such as ponds, lakes, streams, and rivers. If these waters were observed on the property, GTA incorporated them into the nontidal wetland delineation and labeled them accordingly.

3.2 Hydrology

The 1987 Manual defines wetland hydrology as the sum of the total wetness characteristics in areas that are inundated or have saturated soils for a sufficient duration to support hydrophytic vegetation. The 1987 Manual further defines areas with evident characteristics of wetland hydrology as those where the presence of water has an overriding influence on characteristics of vegetation and soils due to anaerobic and reducing conditions. Wetland hydrology exists when a minimum of one primary indicator or two secondary indicators are present. Indicators of wetland hydrology are generally derived from observations of surface water or saturated soils, evidence of recent inundation, evidence of current or recent soil saturation, and evidence from other site conditions or data. Additional evidence of wetland hydrology can also be used with appropriate documentation.

3.3 Vegetation

Hydrophytic vegetation can be defined as plant life growing in water or on a substrate that is at least periodically inundated by water. The Corps, as part of an interagency effort with the U.S. Environmental Protection Agency (EPA), the USFWS, and the NRCS published the National Wetland Plant List⁵ (NWPL). The NWPL lists indicator statuses to plants that occur in and around wetlands, describing the likelihood that species occurs in a wetland:

Obligate Wetland (OBL): Occur in wetlands with an estimated 99% probability.

Facultative Wetland (FACW): Usually occur in wetlands, with an estimated 67%-99% probability.

Facultative (FAC): Equally likely to occur in wetlands and uplands, with an estimated 34%-66% probability of occurring in wetlands.

Facultative Upland (FACU): Usually occur in uplands, with an estimated 67%-99% probability of occurring in uplands.

Obligate Upland (UPL): Occur in uplands with an estimated 99% probability.

For vegetation within a community to be determined hydrophytic in accordance with the Supplement, it must pass the Dominance Test, where more than 50% of the dominant plant species observed must have the indicator statuses OBL, FACW, and FAC. If the vegetation observed in the community fails the Dominance Test and indicators of wetland hydrology and hydric soils are present, the Prevalence Index should be applied. Hydrophytic vegetation is present if a prevalence index of 3.0 or less is determined.

3.4 Soils

A hydric soil is defined as a soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions (Supplement). According to the Supplement, indicators of hydric soils form mostly from the loss or accumulation of iron, manganese, sulfur, or carbon compounds during saturated and anaerobic conditions.

⁵ U.S. Army Corps of Engineers. 2016. National Wetland Plant List, Version 3.3. Available online at http://wetland_plants.usace.army.mil.

3.5 On-Site Data Collection

Data Collection Points (DCPs) were established on-site at locations to evaluate the presence of jurisdictional wetlands and waterways, and to demonstrate the typical characteristics of uplands and wetlands. In areas where hydrologic indicators were observed with hydrophytic vegetation, GTA personnel excavated or augured test pits in the ground to a depth of 20 inches or more to observe features of the soil column. GTA personnel reviewed soil samples from test pits at numbered DCPs in order to describe and classify the soil as either hydric or non-hydric. At these DCPs, GTA personnel also evaluated the surrounding vegetative species and hydrologic indicators. Data Forms were prepared to record observations of the conditions within the wetland and upland areas. Data Forms were also prepared to record data from adjacent upland areas to further support the delineation in the field. The DCPs have been labeled on the Wetland Delineation Plan as DCP-1 through DCP-27. Data Forms with reference photographs are included in Appendix B to support the determination depicted on the accompanying Wetland Delineation Plan (Appendix D).

3.6 Delineation

Between November 2017 and May 2018, GTA's wetland scientists conducted on-site reviews to evaluate whether jurisdictional wetlands and/or waterways are present within the review area. GTA's field delineation of jurisdictional "waters of the U.S." consisted of identifying the limits of the wetlands and waterways with pink and black striped flags, numbered sequentially. Wetland flags were hung at the time of GTA's field visits. GTA used the base plan described in Section 2.1 to navigate the site. Wetland and waterway flag locations were located in the field using a Trimble Geo-XH handheld global positioning system between November 2017 and May 2018 and are shown on the accompanying Wetland Delineation Plan (Appendix D).

4.0 SYSTEMS IDENTIFIED

Six systems were identified within the area of review and are described in the following section:

4.1 System 1: Perennial and Intermittent Streams, Ephemeral Channels, and Abutting and Adjacent Wetlands

System 1 is located in the western portion of the review area, east of Van Bibber Road, and consists of Haha Branch (Waters A), nine intermittent streams (Waters B, C, D, F, G, H, I, J, and M), four ephemeral channels (Waters E, K, L, and N), seven six forested wetlands (Wetland 3, 5, 6, 8, 9, and 10), and two adjacent forested wetland (Wetland 7 and 4). Haha Branch enters the review area from a culvert beneath Interstate 95 on the western portion of the review area and flows south, meandering along the western and southern boundaries of the review area, and then continues south beyond the review area. Waters B originates as an ephemeral channel in the southwestern portion of the review area and flows south, becomes an intermittent stream and contributes to Haha Branch. Waters C originates in the southern portion of the review area and flows southwest and contributes to Haha Branch. Waters D originates as an ephemeral channel south of Interstate 95 in the northern portion of the review area and flows southwest, becomes an intermittent stream, and contributes to Haha Branch. Waters E originates in the northern portion of the review area and flows west and contributes to Waters D. Waters F originates beyond the review area south of Interstate 95 and enters the northern portion of the review area. Waters F flows south and contributes to Waters D. Waters G originates in the northwestern portion of the review area and flows south to contribute to Haha Branch. Waters H originates beyond the review area on the western portion of the review area and flows east to contribute to Haha Branch. Waters I diverges from Haha Branch as an oxbow stream on the western portion of the review area. Waters J originates within the central portion of the review area and flows south through the review area. Portions of Waters J meander along the southeastern review area boundary. Waters K originates in the southern portion of the review area and flows east into Waters J. Waters L originates in the southcentral portion of the review area and flows south to contribute to Waters J. Waters M originates in the south western portion of the review area and flows east and contributes to Waters J. Waters N originates north of Waters M and flows south into Waters M. Ordinary high-water marks and defined beds and banks were observed within the limits of the intermittent and perennial streams and the ephemeral channels within the review area.

Wetlands 3, 5, 6, 8, 9, and 10 abut Haha Branch. Wetlands 4 and 7 are adjacent to Haha Branch. Evidence of primary indicators of wetland hydrology observed by GTA within these wetlands includes Indicators A1 (surface water), A2 (high water table), A3 (saturation), B2 (sediment deposits), B3 (drift deposits), B5 (iron deposits), B9 (water stained leaves), and B13 (aquatic fauna). Secondary indicators observed by GTA include Indicators B8 (sparsely vegetated concave surface), B10 (drainage patterns), and D2 (geomorphic position).

GTA's wetland scientists observed predominantly hydrophytic vegetation species within the wetlands, including red maple (*Acer rubrum*, FAC), sweetgum (*Liquidambar styraciflua*, FAC), blackgum (*Nyssa sylvatica*, FAC), American holly (*Ilex opaca*, FAC), highbush blueberry (*Vaccinium corymbosum*, FACW), upright sedge (*Carex stricta*, OBL), skunk cabbage (*Symplocarpus foetidus*, OBL), roundleaf greenbriar (*Smilax rotundifolia*, FAC), southern arrowwood (*Viburnum dentatum*, FAC), Nepalese browntop (*Microstegium vimineum*, FAC), poison ivy (*Toxicodendron radicans*, FAC), and cinnamon fern (*Osmunda cinnamomea*, OBL). GTA personnel excavated test pits to depths of 16 inches or greater within the limits of the wetland boundaries and observed the NRCS and Corps hydric soils field indicators including Indicators A12 (thick dark surface), F3 (depleted matrix), and S5 (sandy redox).

4.2 System 2: Intermittent Streams, Ephemeral Channels, and Abutting Forested Wetlands

System 2 is located in the eastern portion of the review area, west of Abingdon Road and consists of 18 intermittent streams (Waters O, P, Q, R, RR, S, T, U, V, W, X, Z, AA, BB, CC, DD, EE, and FF), two ephemeral stream channels (Waters GG, and HH), and seven abutting forested wetlands (Wetlands 11, 12, 13, 15, 16, 17, and 17a). Waters O originates from Wetland 13 and flows south beyond the review area. Waters P originates in the southern central portion of the review area, flows east, and contributes to Waters Q. Waters Q originates in the southern-central portion of the review area and flows southeast and flows into Waters O. Waters RR originates beyond the review area and flows west and converges with Waters O. Waters R originates within the northeastern portion of the review area and flows southwest and contributes to Waters O. Waters S originates from Wetland 15 and flows southwest and contributes to Waters O. Waters T originates in the eastern portion of the review area and flows west to

contribute to Waters O. Waters U originates in the eastern portion of the review area, west of Waters O, and flows east and contributes to Waters O. Waters V and Waters W originate east of the review area and flow west into Waters O. Waters X originates beyond the review area to the east and flows west and contributes to Waters O.

Waters Z originates beyond the review area to the north and flows south into the review area. Waters Z flows southeast, continues beyond and reenters the review area and then flows south, bisecting the review area. Waters AA originates in the central portion of the review area, and flows east into Waters Z. Waters BB originates north of Haha Branch in the central portion of the review area, and flows east and converges with Waters Z. Waters CC originates from Wetland 17 and flows east to converge with Waters BB. Waters DD originates north of Waters CC on the northern-central portion of the review area flows east to contribute to Waters Z. Waters EE originates in the northern portion of the review area and flows west into Waters Z. Waters FF originates beyond of the review area and flows south, through the review area to contribute to Waters Z. Waters GG originates along the northern edge of the review area and flows northeast and contributes to Waters Z. Waters HH originates beyond the review area and flows southwest into Waters GG. Ordinary high-water marks and defined beds and banks were observed within the limits of the intermittent streams and the ephemeral channels within the review area.

Wetlands 11, 12, 13, and 15 are forested wetlands abutting Waters O, Wetlands 16, and Wetland 17 are forested wetlands abutting Waters Z, and Wetland 17a is a forested wetland abutting Waters CC. Evidence of primary indicators of wetland hydrology within these wetlands includes Indicators A1 (surface water), A2 (high water table), A3 (saturation), B9 (water stained leaves), and B10 (drainage patterns).

GTA's wetland scientists observed predominantly hydrophytic vegetation species within the wetlands, including red maple, sweetgum, pin oak (*Quercus palustris*, FACW), swamp white oak (*Quercus bicolor*, FACW) Virginia sweetspire (*Itea virginica*, FACW), upright sedge, American holly, highbush blueberry, skunk cabbage, whitegrass (*Leersia virginica*, FACW), Nepalese browntop, and cinnamon fern. GTA personnel excavated test pits to depths of

20 inches or greater within the limits of the wetland boundary and observed the NRCS and Corps hydric soils field indicators including Indicators F3 (depleted matrix) and S7 (Dark Surface).

4.3 System 3: Isolated Forested Wetland

Wetland 14 is an isolated forested wetland located in the northwest portion of the review area, west of Waters O and east of Waters Z. Evidence of primary indicators of wetland hydrology included Indicators A1 (surface water), A2 (high water table), A3 (saturation), and B9 (water stained leaves). Within Wetland 14, GTA's wetland scientists observed predominantly hydrophytic vegetation species, including red maple, sweetgum, coastal sweetpepperbush (*Clethra alnifolia*, FACW), highbush blueberry, and cinnamon fern. GTA personnel excavated test pits to depths of 20 inches or greater within the limits of the wetland boundary and observed the NRCS and Corps hydric soils indicators including Indicator F3 (depleted matrix). GTA personnel did not observe a connection between Wetland 14 and Waters of the U.S.

4.4 System 4: Isolated Forested Wetland

Wetland 19 is an isolated forested wetland located in northern portion of the review area, west of Wetland 14 and east of Waters Z. Evidence of primary indicators of wetland hydrology included Indicators A1 (surface water), A2 (high water table), A3 (saturation), and B9 (water stained leaves). Within the isolated forested wetland, GTA's wetland scientists observed predominantly hydrophytic vegetation species, including red maple, sweetgum, roundleaf greenbrier, and an unidentifiable *Carex* species (FAC). GTA personnel excavated test pits to depths of 20 inches or greater within the limits of the wetland boundary and observed the NRCS and Corps hydric soils indicators including Indicator A12 (thick dark surface). GTA personnel did not observe a connection between Wetland 19 and Waters of the U.S.

4.5 System 5: Isolated Forested Wetland

Wetland 1 is an isolated forested wetland located in northern-central portion of the review, south of Interstate 95, east of Haha Branch and west of Wetland 2. Evidence of primary indicators of wetland hydrology included Indicators A2 (high water table), A3 (saturation), B7 (inundation visible on aerial imagery), and B9 (water stained leaves). GTA's wetland scientists observed predominantly hydrophytic vegetation species, including red maple, sweetgum, and

highbush blueberry. GTA personnel excavated test pits to depths of 20 inches or greater within the limits of the wetland boundary and observed the NRCS and Corps hydric soils indicators including Indicator F3 (depleted matrix). GTA personnel did not observe a connection between Wetland 1 and Waters of the U.S.

4.6 System 6: Isolated Forested Wetland

Wetland 2 is an isolated forested wetland located in northern-central portion of the review area, south of Interstate 95, east of Haha Branch and east of Wetland 1. Evidence of primary indicators of wetland hydrology included Indicator A2 (high water table), Indicator A3 (saturation), Indicator B7 (inundation visible on aerial imagery), and Indicator B9 (water stained leaves). GTA's wetland scientists observed predominantly hydrophytic vegetation species, including red maple, sweetgum, and highbush blueberry. GTA personnel excavated test pits to depths of 20 inches or greater within the limits of the wetland boundary and observed the NRCS and Corps hydric soils indicators including Indicator F3 (depleted matrix). GTA personnel did not observe a connection between Wetland 6 and Waters of the U.S.

5.0 OTHER FEATURES

5.1 Erosional Drainageways

GTA's wetland scientist observed several erosional drainageways within the woods throughout the review area. GTA's wetland scientist did not observe a consistent bed and bank or a consistent OHWM throughout the majority of the drainageways. Additionally, in GTA's professional opinion, these erosional features did not have a clear connection to "waters of the U.S.;" therefore, should not be considered jurisdictional "waters of the U.S."

6.0 CONCLUSION

In GTA's professional opinion, the perennial and intermittent stream, ephemeral channels, and abutting, adjacent, and isolated forested and emergent wetlands, identified within the area of review exhibited characteristics of "waters of the U.S." or all three wetland parameters. It is GTA's professional opinion that four of the forested wetlands (Wetlands 1, 2, 14, and 19) lacked a connection or significant nexus to Waters of the U.S., therefore, should be considered jurisdictional to the state, but not federally jurisdictional. These areas were flagged in

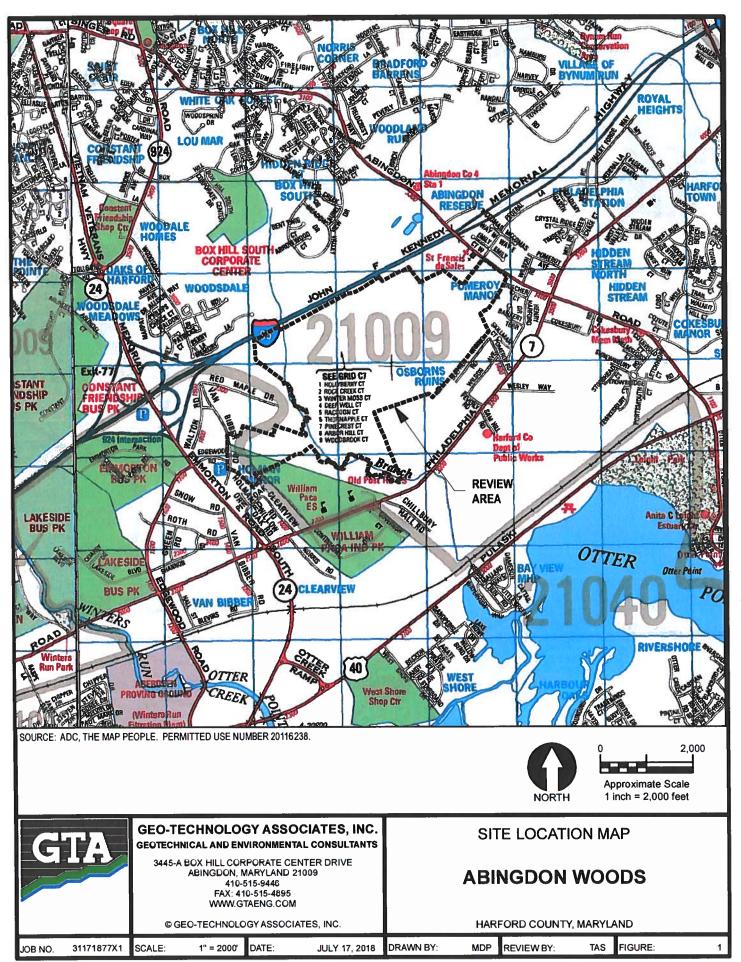
the field and are identified on the *Wetland Delineation Plan*. It is GTA's professional opinion that the erosional drainage ways lack consistent bed and bank and/or ordinary high-water marks; therefore, they should not be considered state or federal jurisdictional.

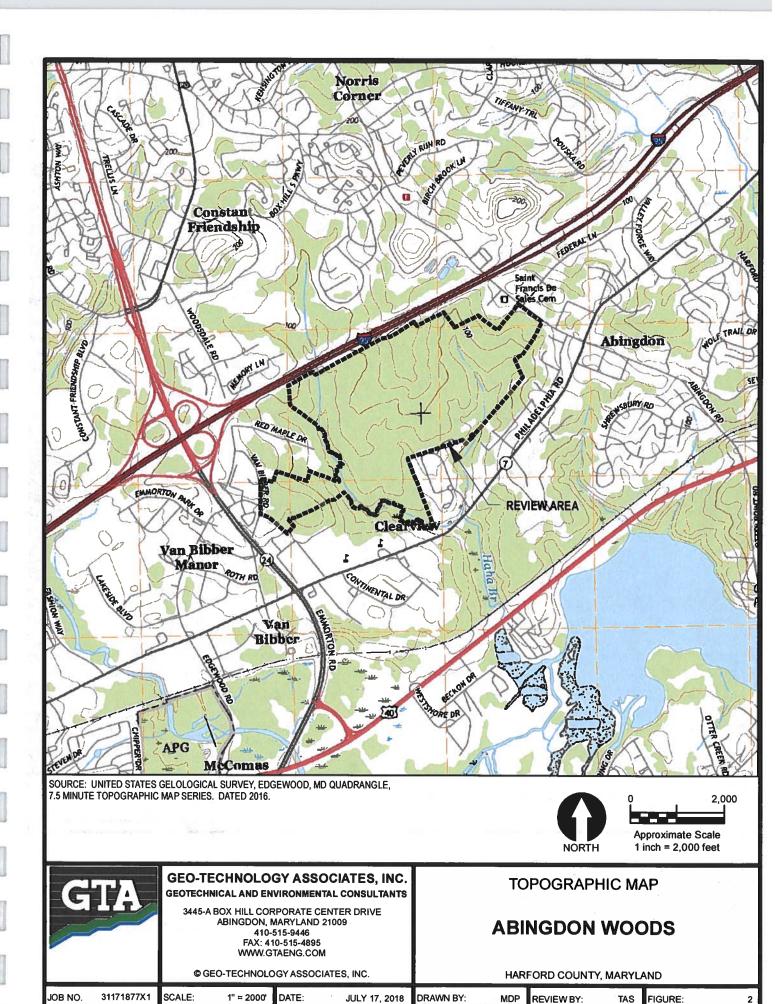
As a result of the environmental review of the review area, it is GTA's professional opinion that there are jurisdictional non-tidal wetlands and waterways present within the review area. Our conclusions regarding this review area have been based on observations of existing conditions, professional experience in the area with similar projects, and generally accepted professional environmental practice under similar circumstances. Seasonal fluctuations in precipitation or weather conditions can result in differences in the perception of hydrologic conditions, which can alter GTA's evaluation of wetlands/waterways. It is important to note that this delineation is GTA's professional opinion, only. Decisions regarding the official jurisdictional status of wetlands/waterways are made by federal, state, and/or local regulatory agencies.

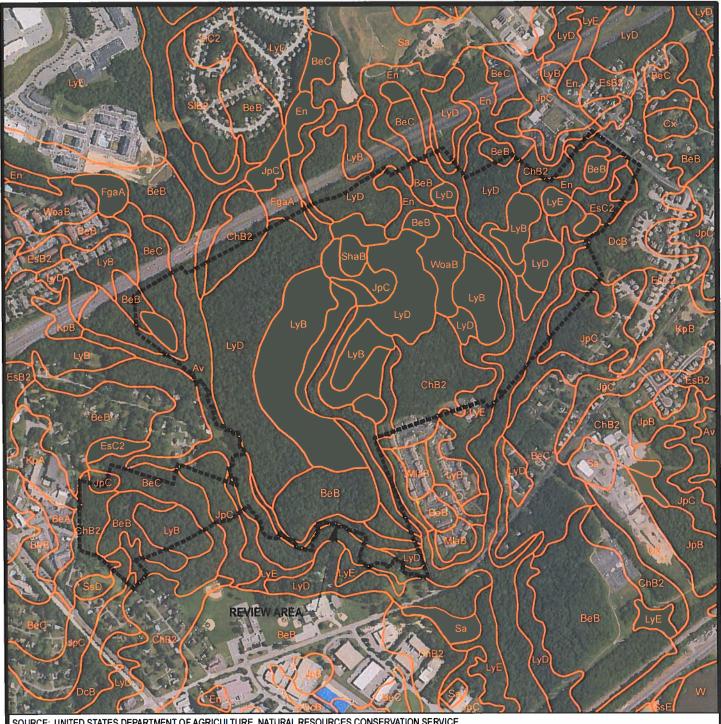
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**** END OF REPORT ****

APPENDIX A FIGURES

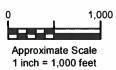






SOURCE: UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE. GRIDDED SOIL SURVEY GEOGRAPHIC (gSSURGO) DATABASE FOR MARYLAND. DATED 2017. 2017 BASE AERIAL IMAGERY PROVIDED BY THE NATIONAL AGRICULTURAL IMAGERY PROGRAM.







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SOIL SURVEY MAP

ABINGDON WOODS

HARFORD COUNTY, MARYLAND

JOB NO. 31171877X1

SCALE:

1" = 1000

DATE:

JULY 17, 2018

DRAWN BY:

MDP

REVIEW BY:

TAS

FIGURE:



SOURCE: UNITED STATES FISH AND WILDLIFE SERVICE, NATIONAL WETLANDS INVENTORY. 2017 BASE AERIAL IMAGERY PROVIDED BY THE NATIONAL AGRICULTURAL IMAGERY PROGRAM.

LEGEND

FRESHWATER EMERGENT WETLAND

FRESHWATER FORESTED/SHRUB WETLAND

FRESHWATER POND

RIVERINE



NWI WETLANDS MAP

ABINGDON WOODS

HARFORD COUNTY, MARYLAND





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MDP REVIEW BY:

FIGURE:

JOB NO. 31171877X1 SCALE:

1" = 1000'

DATE: JULY 17, 2018 DRAWN BY:

TAS



SOURCE: MARYLAND DEPARTMENT OF NATURAL RESOURCES WETLAND INVENTORY. 2017 BASE AERIAL IMAGERY PROVIDED BY THE NATIONAL AGRICULTURAL IMAGERY PROGRAM.



RIVERINE



PALUSTRINE







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MD DNR WETLANDS MAP

ABINGDON WOODS

HARFORD COUNTY, MARYLAND

JOB NO. 31171877X1

(1 SCALE:

1" = 1000'

DATE:

JULY 17, 2018

DRAWN BY:

MDP F

REVIEW BY:

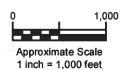
TAS

FIGURE:



SOURCE: 2017 BASE AERIAL IMAGERY PROVIDED BY THE NATIONAL AGRICULTURAL IMAGERY PROGRAM







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ABINGDON WOODS

2017 AERIAL IMAGERY

HARFORD COUNTY, MARYLAND

31171877X1 JOB NO.

SCALE:

1" = 1000

DATE: JULY 17, 2018 DRAWN BY:

REVIEW BY:

TAS

FIGURE:

APPENDIX B DATA FORMS

Project/Site:	Abingdon Woods	City/County:	Harford County	Sampling Date:	16-N	ov-17
Applicant/Owner:	Chesapeake Real Estate Gro	oup	State: MD	Sampling Point:	DC	P-1
Investigator(s):	M. Jennette	Section, Towns	hip, Range:	N	I/A	
Landform (hillslope, terrace, etc.):	depression	Local relief (conca	ve, convex, none):	concave S	lope (%):	0
Subregion (LLR or MLRA):	MLR 149A Lat:	39.46100° Lo	ng: <u>-76.294</u>	27°	Datum:	NAD83
Soil Map Unit Name:	Joppa gravelly sandy loam, 5	-10% slopes (JpC)		NWI classification:	P	FO
Are climatic/hydrologic conditions or	n the site are typical for this time of year?	Yes	<u>X</u> No(If n	o, explain in Remarks)		
Are Vegetation, Soil		disturbed?	Are "Normal Circur	nstances" present?	Yes X	No
Are Vegetation, Soil	, or Hydrologynaturally pro	blematic?	(If needed, explain	any answers in Remark	ks.)	
SUMMARY OF FINDINGS- Atta	ch site map showing sampling point	locations, transects,	important features,	etc.		
Hydrophytic Vegetation Present?	Yes <u>X</u> No					
Hydric Soil Present?	YesX No	Is the Sampled Are	a within a Wetland?	Yes	X No	
		la dia Gampioa / iia	a mom a rrobana.	100		
Wetland Hydrology Present?	Yes <u>X</u> No					
Remarks: The DCP was esta	blished within Wetland 1, an isolated fores	ted wetland and also rep	resents Wetland 2, an i	solated forested wetlan	nd.	
HYDROLOGY						
Wetland Hydrology Indicators:		•	Secondary	Indicators (minimum o	f two required)	
Primary Indicators (minimum of on	e is required, check all that apply)		Su	rface Soil Cracks (B6)	-	
Surface Water (A1)	Aquatic Fauna (I	313)	Sp:	arsely Vegetated Conce	ave Surface (B8)	
X High Water Table (A2)	Marl Deposits (B	15) (LRR U)	Dra	inage Patterns (B10)		
X Saturation (A3)	Hydrogen Sulfide	Odor (C1)	Mo	ss Trim Lines (B16)		-
Water Marks (B1)	Oxidized Rhizos	oheres on Living Roots (0	C3) Dry	-Season Water Table ((C2)	
Sediment Deposits (B2)	Presence of Red	uced Iron (C4)	Cra	ayfish Burrows (C8)		
Drift Deposits (B3)	Recent Iron Red	uction in Tilled Soils (C6)	Sai	turation Visible on Aeria	al Imagery (C9)	
Algal Mat or Crust (B4)	Thin Muck Surfa	ce (C7)	Ge	omorphic Position (D2))	
Iron Deposits (B5)	Other (Explain in	Remarks)	Sh	allow Aquitard (D3)		
X Inundation Visible on Aerial	9			C-Neutral Test (D5)		7.
X Water Stained Leaves (B9)			Spi	hagnum moss (D*) (LR	R T, U)	
Field Observations:						
Surface Water Present? Yes	No X Depth (inche	·s):				
Water Table Present? Yes	: ` ` :	·				
Saturation Present? Yes	X No Depth (inche	es): 0	Wetland Hydrology	Present? Yes	X No	
(includes capillary fringe)		· —				
Describe Recorded Data (stream ga	ge, monitoring well, aerial photos, previou	s inspections), if available	e:			
Remarks:					· · · · · · · · · · · · · · · · · · ·	
Namarks:						

US Army Corps of Engineers

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30' Radius)	<u> % Cover</u>	Species?	Status	Number of Dominant Species That Are
Liquidambar styraciflua	40	Y	FAC	OBL, FACW, or FAC:3(A)
2. Acer rubrum	20	Y	FAC	
3,				Total Number of Dominant Species Across All Strata: 3 (B)
4				
5,				Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)
				(1) (1) (1) (1) (1) (1) (1) (1)
6				Prevalence Index worksheet:
7		= Total Cover		Total % Cover of: Multiply by:
50% of total cover: 30		of total cover	12	OBL species x1=
	20%	o or total cover.	12	FACW species x2=
Sapling / Shrub Stratum (Plot size: 30' Radius)	50	V	FACW	1 1
1. Vaccinium corymbosum		Y	$\overline{}$	1 · ——— — ———
2,				FACU species x 4 =
3,				UPL species x5 =
4				Column Totals: (A) (B)
5				Browlesse ladou - B/A -
6				Prevalence Index = B/A =
7				11.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1
8				Hydrophytic Vegetation Indicators:
9				1 - Rapid Test for Hydrophytic Vegetation
		= Total Cover		X 2 - Dominance Test is >50%
50% of total cover: 25	20%	of total cover:	:10	3 - Prevalence Index is ≤3,0°
				4 - Morphological Adaptations¹ (Provide
Herb Stratum (Plot size: 30' Radius)			supporting data in Remarks or on a separate sheet)
1, Stratum not present				Problematic Hydrophytic Vegetation ¹ (Explain)
2				Indicators of hydric soil and wetland hydrology must
3				be present, unless disturbed or problematic.
4				Definitions of Vegetation Strata:
5				
6				Tree - Woody plants, excluding woody vines,
7				approximately 20 ft (6 m) or more in height and 3 in.
8.,				(7.6 cm) or larger in diameter at breast height (DBH).
9,				
10,				Sapling/Shrub - Woody plants, excluding woody vines,
11,				a less than 3in. DBH and greater than or equal to 3,28 ft (1 m) tall.
12				
	0	= Total Cover		Herb - All herbaceous (non-woody) plants, regardless
50% of total cover: 0	20%	6 of total cover	:0	of size, and woody plants less than 3.28 ft. tall
Woody Vine Stratum (Plot size: 30' Radius)			
Stratrum not present				Woody vine - All woody vines, greater than 3,28 ft. in height.
2.1				
3				4
4,				4 1
5,-				41
	0	= Total Cover		
50% of total cover: 0	209	% of total cover	. 0	
				Hydrophytic
				Vegetation
Remarks: (Include photo numbers here or on a separate shee	et).			• • • • • • • • • • • • • • • • • • • •
, , , , , , , , , , , , , , , , , , , ,	,			

SOIL								Sampling Point:	DCP-1
Profile Descript	ion: (Describe to the	depth needed	to document the inc	dicator or o	onfirm the at	sence of i	ndicators.)		
Depth	Matrix		F	Redox Featu	res				
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ² _	Texture	Rem	arks
0-5 5-20	10YR 2/1 -	100					SiL C		
3-20	1011(0/1								
								·	
				-					
				41					<u> </u>
Type: C=conce	ntration, D=Depletion,	RM=Reduced	Matrix, CS≃Covered	or Coated S	and Grains.	-	² Location: PL=	Pore Lining, M=Ma	trix.
lydric Soil Indi	cators:						Indicators for	Problematic Hydri	c Soils³:
5 cm Mucky Muck Prese 1 cm Muck Depleted Br Thick Dark Coast Prain Sandy Muc Sandy Gley Sandy Red	c (A3) Sulfide (A4) Sulfide (A4) Sulfide (A6) (LRR P, T, U Mineral (A7) (LRR P, Ence (A8) (LRR U) (A9) (LRR P, T) Elow Dark Surface (A1) Surface (A12) Surface (A16) (MLRA ky Mineral (S1) (LRR C red Matrix (S4) ox (S5)	1) 150A) 0, S)	Thin Dark Surfac Loamy Mucky Mi Loamy Gleyed M Depleted Matrix Redox Dark Surf Depleted Dark S Redox Depressic Marl (F10) (LRR Depleted Ochric Iron-Manganese Umbric Surface (Delta Ochric (F1' Reduced Vertic (Piedmont Floodp Anomalous Brigh	ineral (F1) (latrix (F2) (F3) ace (F6) urface (F7) ons (F8) U) (F11) (MLR Masses (F (F13) (LRR 7) (MLRA 1 F18) (MLRA	A 151) 2) (LRR O, P 7, T, U) 51) 4 150A, 150B 519) (MLRA 1) 49A)	Reduced Piedmont Anomalou (MLRA 15 Red Parel Very Shal Other (Ex	k (A10) (LRR S) Vertic (F18) (outsid Floodplain Soils (F' is Bright Loamy Soil 53B) int Material (TF2) low Dark Surface (T plain in Remarks) is of hydrophytic veg hydrology must be p sturbed or problema	19) (LRR P, S, 1 ls (F20) F12) (LRR T, U etation and resent,
Restrictive Lave	er (if observed):					Ī			
Type:									
Depth (inch	es):					Hydric So	il Present?	Yes X	No
Remarks:	- ii								

Project/Site:	Abingdon Woods	_ City/County:	larford County Sampling Date: 16-	Nov-17
Applicant/Owner:	Chesapeake Real Estate Gr	oup	State: MD Sampling Point: E	CP-2
Investigator(s):	M. Jennette	Section, Township	, Range: N/A	
Landform (hillslope, terrace, etc.):	hillslope	Local relief (concave,	convex, none): none Slope (%):	1±
Subregion (LLR or MLRA):	1977	39.46161° Long	23 30 50	NAD83
Soil Map Unit Name:	Sassafras sandy loam, 2-5			N/A
17. 15. 15. 15. 15. 15. 15. 15. 15. 15. 15	the site are typical for this time of year?	Yes X	102	1071
Are Vegetation, Soil	AN AN		Are "Normal Circumstances" present? Yes X	No
Are Vegetation, Soil			(If needed, explain any answers in Remarks.)	
SUMMARY OF FINDINGS- Attac	ch site map showing sampling poin	t locations, transects, in	nportant features, etc.	
Hydrophytic Vegetation Present?	Yes NoX_			
Hydric Soil Present?	Yes No _X_	is the Sampled Area v	vithin a Wetland? Yes No	<u> </u>
Wetland Hydrology Present?	Yes No _X_			
Remarks: DCP was established	ed in a wooded area between Wetlands 1	and 2.		
HYDROLOGY				
Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of on	e is required, check all that apply)		Surface Soil Cracks (B6)	
Surface Water (A1)	Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8	3)
High Water Table (A2)	Marl Deposits (E	315) (LRR U)	Drainage Patterns (B10)	•
Saturation (A3)	Hydrogen Sulfid	1. 1	Moss Trim Lines (B16)	
Water Marks (B1)		pheres on Living Roots (C3)		
Sediment Deposits (B2)	Presence of Re		Crayfish Burrows (C8)	
Drift Deposits (B3)		luction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)	
Algal Mat or Crust (B4)	Thin Muck Surfa	74 (2)	Geomorphic Position (D2)	
Iron Deposits (B5)	Other (Explain i		Shallow Aquitard (D3)	
Inundation Visible on Aerial		T (Cinanco)	FAC-Neutral Test (D5)	
Water Stained Leaves (B9)			Sphagnum moss (D*) (LRR T, U)	
Field Observations:				
Surface Water Present? Yes	No X Depth (inch	ec).		
Water Table Present? Yes				
Saturation Present? Yes		· ——	Wetland Hydrology Present? Yes No	x
(includes capillary fringe)	No X		Too No	
Describe Recorded Data (stream ga	age, monitoring well, aerial photos, previo	us inspections), if available:		
Remarks:				

US Army Corps of Engineers

Tana Charles (District 201 Dedice	Absolute	Dominant	Indicator	Dominance Test worksheet:	
	% Cover	Species?	Status	Number of Dominant Species That Are	
1. Pinus virginiana	50	Y	UPL	OBL, FACW, or FAC:	0(A)
2. Pinus taeda		N	FAC_	Total Number of Dominant Species	
3. Quercus marilandica	15	<u> </u>	UPL	Across All Strata:	5(B)
4. Quercus alba	15	<u> </u>	FACU	Percent of Dominant Species That Are	
5					%(A/B)
6					
7				Prevalence Index worksheet:	
	95	= Total Cover		Total % Cover of: Multip	ply by:
50% of total cover: <u>47.5</u>	20%	of total cover:	19	OBL species x 1 =	
Sapling / Shrub Stratum (Plot size: 30' Radius)				FACW species x 2 =	
1. Kalima latifolia	30	Y	FACU	FAC species x 3 =	
Vaccinium augustifolium	25		FACU	FACU species x 4 =	
3				UPL species x 5 =	
4				Column Totals: (A)	(B)
5					
6			$\overline{}$	Prevalence Index = B/A =	 i
7			\longrightarrow		
8				Hydrophytic Vegetation Indicators:	
9				1 - Rapid Test for Hydrophytic Veget	tation
		= Total Cover		2 - Dominance Test is >50%	
50% of total cover: 27.5	20%	of total cover:	11	3 - Prevalence Index is ≤3.0¹	W.
				4 - Morphological Adaptations ¹ (Prov	
Herb Stratum (Plot size: 30' Radius)				supporting data in Remarks or on a	. '
1. Vaccinium augustifolium	20	<u>Y</u>	FACU	Problematic Hydrophytic Vegetation	` ' '
2. Goodyera pubescens		Y	UPL	Indicators of hydric soil and wetland hydrology must	,i
3				be present, unless disturbed or problematic.	
4			\longrightarrow	Definitions of Vegetation Strata:	
5				2	
6				Tree - Woody plants, excluding woody vines,	
7				approximately 20 ft (6 m) or more in height and 3 in.	
8				(7.6 cm) or larger in diameter at breast height (DBH).	
9					1
10				Sapling/Shrub - Woody plants, excluding woody vine	7.5
11				a less than 3in. DBH and greater than or equal to 3.2	8 ft (1 m) tall.:
12					
		= Total Cover	_	Herb - All herbaceous (non-woody) plants, regardless	ŝ
50% of total cover: 12.5	20%	of total cover:	5	of size, and woody plants less than 3.28 ft. tall	
Woody Vine Stratum (Plot size: 30' Radius	1			 	
1. Straum not present				Woody vine - All woody vines, greater than 3.28 ft. in	ı height.
2					
3					
4					
5					
		= Total Cover			
50% of total cover:0	20%	of total cover:			
				 	
				Hydrophytic	
				Vegetation	
				Present? Yes No	<u> </u>
Remarks: (Include photo numbers here or on a separate shee	t).				
					=

Depth (inches)	Matrix		F	Redox Featu	ıres				
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Rema	arks
0-11	10YR 5/6	90	10YR 4/2	10	С	M	SaL		
11-20	10YR 5/6	90	10YR 6/8	10	<u>C</u>	M	SaL		
									
rpe: C=concer	ntration, D=Depletion,	RM=Reduced	Matrix, CS=Covered	or Coated S	Sand Grains.		² Location: PL=1	Pore Lining, M=Mat	ńx.
dric Soil Indic								Problematic Hydric	
								•	
_ Histosol (A1	,		Polyvalue Below			U)		(A9) (LRR O)	
Histic Epipe			Thin Dark Surface					(A10) (LRR S)	
Black Histic			Loamy Mucky M		(LRR O)			/ertic (F18) (outsid	
Hydrogen S			Loamy Gleyed N					Floodplain Soils (F1	
Stratified La	iyers (A5) dies (A6) (LRR P, T, U		Depleted Matrix Redox Dark Surf	, ,			(MLRA 15	s Bright Loamy Soil	S (F2U)
	Mineral (A7) (LRR P,		Depleted Dark S					t Material (TF2)	
_	ence (A8) (LRR U)	1, 0,	Redox Depressi	, ,				ow Dark Surface (T	F12) (LRR T. U)
	(A9) (LRR P, T)		Marl (F10) (LRR					lain in Remarks)	
	elow Dark Surface (A1	1)	Depleted Ochric	•	RA 151)			- Tomaino,	
-	Surface (A12)	.,	Iron-Manganese		-	. T)	3Indicators	of hydrophytic veg	etation and
	e Redox (A16) (MLRA	150A)	Umbric Surface			, -,		ydrology must be pi	
_	ky Mineral (S1) (LRR (-	Delta Ochric (F1					turbed or problema	
Sandy Gley	ed Matrix (S4)		Reduced Vertic	(F18) (MLR.	A 150A, 150B)		·	
Sandy Redo	ox (S5)		Piedmont Flood	The state of the s		•			
Stripped Ma			Anomalous Brigi	ht Loamy So	oils (F20) (ML I	RA 149A, 1	153C, 153D)		
Dark Surfac	æ (S7) (LRR P, S, T, l	J)							
estrictive Laye	er (if observed):								
Depth (inch	es):					Hydric Sc	oil Present?	Yes	No X
emarks:									
mans.									

Project/Site:	Abingdon Woods		City/County:	Harford Co	ounty	Sampling Date:	20-Apr-18
Applicant/Owner:	Chesapeak	e Real Estate Gro	oup	State:	MD	Sampling Point:	DCP-3
Investigator(s):	M. Jennette and M. Potemb	er	Section, To	wnship, Range:		N/A	
Landform (hillslope, terrace, etc.)	: depress	ion	Local relief (co	ncave, convex,	none): con	cave Slope (%): 0
Subregion (LLR or MLRA):	MLR 149A	Lat:	39.45244°	Long:	-76.29229°	Datu	um: NAD83
Soil Map Unit Name:	Sassafras a	nd joppa soils, 15	-30% slopes (SsE)			WI classification:	PFO
Are climatic/hydrologic conditions		nis time of year?	Yes	X No	(If no, ex	plain in Remarks)	
Are Vegetation, Soil	, or Hydrology	significantly o	disturbed?	Are "No	rmal Circumstan	ces" present? Ye	es X No
Are Vegetation, Soil		naturally prof	blematic?	(If need	ed, explain any a	inswers in Remarks.)	
SUMMARY OF FINDINGS- A	ttach site map showing	sampling point	locations, transe	cts, important	features, etc.		
Hydrophytic Vegetation Present?	Yes X	No	-				
Hydric Soil Present?	Yes X	No	is the Sampled	Area within a W	etland?	Yes X	. No
Wetland Hydrology Present?		No	,				
Remarks: The DCP was ex	stablished within Wetland 3.						0
HYDROLOGY							
Wetland Hydrology Indicators	:				Secondary Indic	ators (minimum of two	required)
Primary Indicators (minimum of	one is required, check all th	at apply)			Surface	Soil Cracks (B6)	
X Surface Water (A1)		Aquatic Fauna (E	313)		Sparsely	Vegetated Concave S	urface (B8)
X High Water Table (A2)		Marl Deposits (B	15) (LRR U)		Drainage	Patterns (B10)	
X Saturation (A3)		Hydrogen Sulfide	Odor (C1)		Moss Tri	m Lines (B16)	
Water Marks (B1)		Oxidized Rhizosp	oheres on Living Roo	ts (C3)	Dry-Sea	son Water Table (C2)	
Sediment Deposits (B2)	2*	Presence of Red	uced Iron (C4)	•	Crayfish	Burrows (C8)	
Drift Deposits (B3)		Recent Iron Redu	uction in Tilled Soils ((C6)	Saturation	on Visible on Aerial Ima	gery (C9)
Algal Mat or Crust (B4)		Thin Muck Surfac	ce (C7)	•	Geomon	phic Position (D2)	, , ,
Iron Deposits (B5)		Other (Explain in	Remarks)		Shallow	Aquitard (D3)	
Inundation Visible on Ae	rial Imagery (B7)				FAC-Ne	utral Test (D5)	
X Water Stained Leaves (E	39)				Sphagnu	ım moss (D*) (LRR T, l	J)
Field Observations:				T			
Surface Water Present? Y	es X No	Depth (inche	s): 6				
Water Table Present? Y	es X No —	Depth (inche	·				
Saturation Present? Y (includes capillary fringe)	es X No	Depth (inche	s): 0	Wetland	l Hydrology Pres	ent? Yes X	No
Describe Recorded Data (stream	gage, monitoring well, aeri	al photos, previou	s inspections), if avai	ilable:			
Remarks:							

US Army Corps of Engineers

		Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum	(Plot size: 30' Radius) % Cover	Species?	Status	Number of Dominant Species That Are	1
1. Acer rubrum		60	<u> </u>	FAC	OBL, FACW, or FAC:	5 (A)
2. Liquidambar styracifle	ua	20	Υ	FAC	0.00	
					Total Number of Dominant Species Across All Strata:	5 (B)
					ACCOSS All Citata,	
					Percent of Dominant Species That Are	
					OBL, FACW, or FAC:	(A/B)
6					-	
7					Prevalence Index worksheet:	_
		80	= Total Cover		Total % Cover of:	Multiply by:
	50% of total cover: 40	20%	of total cover:	16	OBL species x 1 =	
Sapling / Shrub Stratum	(Plot size: 30' Radius)			FACW species x 2 =	
1. Acer rubrum		20	Y	FAC	FAC species x 3 =	
2. Kalima latifolia		5	N	FACU	FACU species x 4 =	
3. Ilex opaca		5	N	FAC	UPL species x 5 =	
4,					Cotumn Totals: (A)	(B)
					<u> </u>	
					Prevalence Index = B/A =	
					Hydrophytic Vegetation Indicators:	
						hudio Vagatation
9,			= Total Cover		1 - Rapid Test for Hydropi X 2 - Dominance Test is >50	Salar Sa
	500/ -51-1-1	400				1.0
	50% of total cover: 15	20%	of total cover:	6	3 - Prevalence Index is ≤3	
	-				4 - Morphological Adaptat	12.0
Herb Stratum	(Plot size: 30' Radius	•			'' '	ks or on a separate sheet)
1. Carex stricta		10	Y	OBL	Problematic Hydrophytic \	/egetation¹ (Explain)
2. Ilex opaca		5	Y	FAC	Indicators of hydric soil and wetland hydro	ology must
3,:					be present, unless disturbed or problemati-	C.:
4					Definitions of Vegetation Strata:	
5.:						
					Tree - Woody plants, excluding woody vine	es,
					approximately 20 ft (6 m) or more in height	and 3 in.
					(7.6 cm) or larger in diameter at breast hei	
						* ***
						woody vines.
					a less than 3in. DBH and greater than or e	
					la 1000 than one DBT and grouter than or o	qual to 0.20 it (1 iii) tail.
12		15	= Total Cover		Herb - All herbaceous (non-woody) plants,	rogardiaca
	500/ -54-4-1 7.5	100			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
	50% of total cover: 7.5	_ 20%	6 of total cover:	:3	of size, and woody plants less than 3.28 ft.	tall
Woody Vine Stratum	(Plot size: 30' Radius	_)				
Stratum not present					Woody vine - All woody vines, greater tha	n 3.28 π. in neight.
2					- 1	
3.					4 1	
4					11	
5					41	
		0	= Total Cover		11	
	50% of total cover: 0	_ 20%	% of total cover	:0		
					Hydrophytic	
					Vegetation	
					Present? Yes X	No
					<u> </u>	
Remarks: (Include photo	numbers here or on a separate she	et).				
İ						
<u></u>						

SOIL Sampling Point: DCP-3 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features (inches) Color (moist) % Color (moist) Texture Type Loc² 0-20 10YR 5/2 SiCL ²Location: PL=Pore Lining, M=Matrix. ¹Type: C=concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains **Hydric Soil Indicators:** Indicators for Problematic Hydric Soils³: Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR S) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (outside MLRA 150A,B) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, T) Stratified Layers (A5) 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) (LRR T, U) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T) ³Indicators of hydrophytic vegetation and 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:

Project/Site:	Abingdon Woods		City/County:	<u></u>	arford County		Sampling Da	te:	20-Ap	r-18
Applicant/Owner:	Chesap	eake Real Estate Gro	оир		State:	MD	Sampling Poi	nt:	DCP	-4
Investigator(s): M	. Jennette and M. Pote	ember	Section, To	ownship,	Range:			N/A		
Landform (hillslope, terrace, etc.):	hill	slope	Local relief (c	oncave,	convex, none):non	е	Slope (%):_		8±
Subregion (LLR or MLRA):	MLR 149A	Lat	39.45261°	Long:	7	6.29225°		Datum:		NAD83
Soil Map Unit Name:	Sassafra	as and joppa soils, 15		_			VI classification		N/A	۸
Are climatic/hydrologic conditions	on the site are typical f	or this time of year?	Yes	Х	No	(If no, expl	ain in Remark	(s)		
Are Vegetation, Soil		significantly	disturbed?		Are "Normal	Circumstanc	es" present?	Yes	X	No
Are Vegetation , Soil	_	naturally proi	plematic?		(If needed, e.	kolain anv an	swers in Rem	arks.)		
SUMMARY OF FINDINGS- Att	J-60.			ote im	10 / / Feb					
SOMMANT OF FINDINGS-ALL	acii site iliap silow	ing samping point	iocations, transe	rcis, iii	iportant leat	ures, etc.				
Hydrophytic Vegetation Present?	Yes	NoX								
Hydric Soil Present?		NoX	is the Sampled	d Area w	ithin a Wetlan	d?	Ye	s	No _	X
Wetland Hydrology Present?	Yes	NoX								
Remarks: The DCP was est	ablished within a wood	ded area north of Wet	and 3.							
HYDROLOGY										
Wetland Hydrology Indicators:					Sacr	ndanı Indica	tors (minimun	of two requi	irad)	
Primary Indicators (minimum of o	one is required check	all that anniv)			364		oil Cracks (Be		iieu)	
Surface Water (A1)	ine is required, check	Aquatic Fauna (I	212\			_	egetated Co	•	o (D9)	
	_	1000					-		æ (BO)	
High Water Table (A2)	_	Marl Deposits (B	1(8)			_	Patterns (B10	')		
Saturation (A3)		Hydrogen Sulfide	6800				Lines (B16)			
Water Marks (B1)			pheres on Living Ro	ots (C3)			on Water Tab	le (C2)		
Sediment Deposits (B2)	_	Presence of Red	Washington and the same of the			_	Burrows (C8)	99		
Drift Deposits (B3)	_		uction in Tilled Soils	(C6)		_	Visible on A		(C9)	
Algal Mat or Crust (B4)	_	Thin Muck Surfa					nic Position (I	02)		
iron Deposits (B5)	-11(07)	Other (Explain in	Remarks)				quitard (D3)			
Inundation Visible on Aeric						_	tral Test (D5)			
Water Stained Leaves (BS))					_ Sphagnur	n moss (D*) (LRR T, U)		
Field Observations:										
Surface Water Present? Yes	es No	C Depth (inche	es):							
Water Table Present? Ye	es No Z	C Depth (inche	es):	1						
Saturation Present? Ye	es No	K Depth (inche)	es):		Wetland Hyd	Irology Prese	nt? Ye	s	No _	X
(includes capillary fringe)										
Describe Recorded Data (stream	gage, monitoring well,	aerial photos, previou	s inspections), if av	ailable:						
Demonstra										
Remarks:										
										
US Army Corps of Engineers					A	tlantic and G	ulf Coastal Pl	ain Region-V	ersion 2	0

Tree Stratum	(Plot size: 30' Padius	Absolute) % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:		
	(Plot size: 30' Radius				Number of Dominant Species That Are		(4)
1. Quercus rubra		45	<u> </u>	FACU	OBL, FACW, or FAC:	0	_(A)
2. Fagus grandifolia			Y	FACU	Total Number of Dominant Species	_	.2.
3. Quercus montana			<u>Y</u>		Across All Strata:	5	_(B)
4. Acer rubrum			<u>N</u>	FAC	Percent of Dominant Species That Are		
					OBL, FACW, or FAC:	0%	_(A/B)
7					Prevalence Index worksheet:		
			= Total Cover		Total % Cover of:	Multiply by:	_
Carling / Charle Classics			of total cover:	20	OBL species x 1 =	`	
Sapling / Shrub Stratum	(Plot size: 30' Radius		Υ	FACU	FACW species x 2 =		
Kalmia latifolia Acer rubrum		<u>25</u> 5			FAC species x 3 = FACU species x 4 =		
					UPL species x 5 = Column Totals: (A)		_
					Column Fotals.	-	_ (5)
				- A	Prevalence Index = B/A =		
							_
					Hydrophytic Vegetation Indicators:		
					1 - Rapid Test for Hydrop	hytic Vegetation	
			= Total Cover		2 - Dominance Test is >5	-	
	50% of total cover:15	20%	of total cover:	6	3 - Prevalence Index is ≤	3.01	
					4 - Morphological Adapta	tions ¹ (Provide	
Herb Stratum	(Plot size: 30' Radius)			supporting data in Remar	ks or on a separat	e sheet
1. Kalmia latifolia		10	Y	FACU	Problematic Hydrophytic	Vegetation ¹ (Expla	in)
2.					¹ Indicators of hydric soil and wetland hydro	ology must	
3.					be present, unless disturbed or problemati	с.	
4					Definitions of Vegetation Strata:		
					34		
					Tree - Woody plants, excluding woody vine		
					approximately 20 ft (6 m) or more in height		
					(7.6 cm) or larger in diameter at breast hei	ght (DBH).	
				-	Control of the state of the sta		
					Sapling/Shrub - Woody plants, excluding		. \ A=H
					a less than 3in. DBH and greater than or e	quai to 3.28 π (1 m	ı) talı.
12			= Total Cover		Heat All harbaneous (non woods) electo	resentions	
	50% of total cover: 5		- Total Cover	2	Herb - All herbaceous (non-woody) plants, of size, and woody plants less than 3.28 ft.	-	
Woody Vine Stratum	(Plot size: 30' Radius		o or total cover.		or size, and woody plants less than 5.20 ft.	. tali	
Stratum not present	(Fiot bizo. by Madido	<u> </u>			 Woody vine - All woody vines, greater tha	n 3.28 ft in height.	
					,		
4.							
5.							
			= Total Cover				
	50% of total cover: 0	20%	6 of total cover:	0			
						····	
					Hydrophytic		
					Vegetation		
					Present? Yes	NoX_	_
Remarks: (Include photo n	umbers here or on a separate	sheet).					

•	\sim	٠		

Depth Matrix	Redox Features		
(inches) Color (moist) %	Color (moist) % Type ¹	Loc ² Text	ure Remarks
0-2 10YR 3/3 100		Sil	
2-20 10YR 5/4 100		Sil	
	- 		
¹ Type: C=concentration, D=Depletion, RM=Reduc	ed Matrix, CS=Covered or Coated Sand Grains.	² Locati	on: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:		Indica	tors for Problematic Hydric Soils ³ :
Histosol (A1)	Polyvalue Below Surface (S8) (LRR S, T,		cm Muck (A9) (LRR O)
Histic Epipedon (A2)	Thin Dark Surface (S9) (LRR S, T, U)		cm Muck (A10) (LRR S)
Black Histic (A3)	Loamy Mucky Mineral (F1) (LRR O)		educed Vertic (F18) (outside MLRA 150A,B)
Hydrogen Sulfide (A4) Stratified Layers (A5)	Loamy Gleyed Matrix (F2) Depleted Matrix (F3)		iedmont Floodplain Soils (F19) (LRR P, S, T) nomalous 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)	•	ed Parent Material (TF2)
Muck Presence (A8) (LRR U)	Redox Depressions (F8)		ery Shallow Dark Surface (TF12) (LRR T, U)
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)		(=Apidit it Follains)
Thick Dark Surface (A12)	Iron-Manganese Masses (F12) (LRR O, I	P. T) 3 ₁	ndicators of hydrophytic vegetation and
Coast Prairie Redox (A16) (MLRA 150A)	Umbric Surface (F13) (LRR P, T, U)		vetland hydrology must be present.
Sandy Mucky Mineral (S1) (LRR O, S)	Delta Ochric (F17) (MLRA 151)		inless disturbed or problematic.
Sandy Gleyed Matrix (S4)	Reduced Vertic (F18) (MLRA 150A, 150B		inioss distarbed of problematio.
Sandy Redox (S5)	Piedmont Floodplain Soils (F19) (MLRA		
Stripped Matrix (S6)	Anomalous Bright Loamy Soils (F20) (ML		3D)
Dark Surface (S7) (LRR P, S, T, U)			, and the second
Restrictive Layer (if observed):			
Type:			
Depth (inches):		Hydric Soil Prese	nt? Yes NoX
		<u> </u>	
Remarks			

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

Project/Site:	Abingdon Woods	City/County:	Harford County	_ Sampling Date:	20-Apr-18
Applicant/Owner:	Chesapeake Real Estate Gr	oup	State: MD	Sampling Point:	DCP-5
Investigator(s):	M. Jennette	Section, Townshi	p, Range:	N/A	
Landform (hillslope, terrace, etc.):	depression	Local relief (concave	e, convex, none): cor	ncave Slope (%):	0
Subregion (LLR or MLRA):	MLR 149A Lat:	39.45308° Lon	g:76.29667°	Datum:	NAD83
Soil Map Unit Name:	Aliuvial land (NWI classification:	PFO
Are climatic/hydrologic conditions or	the site are typical for this time of year?	Yes X	No (If no, ex	xplain in Remarks)	
Are Vegetation, Soil	, or Hydrology significantly	disturbed?	Are "Normal Circumsta	nces" present? Yes	X No
Are Vegetation, Soil	, or Hydrology naturally pro	blematic?	(If needed, explain any	answers in Remarks.)	_
SUMMARY OF FINDINGS- Attac	ch site map showing sampling poin	t locations, transects, i	mportant features, etc	•	
Hydrophytic Vegetation Present?	Yes <u>X</u> No				
Hydric Soil Present?	Yes _ X No	Is the Sampled Area	within a Wetland?	Yes X	No
Wetland Hydrology Present?	Yes X No				
Remarks: The DCP was estat	blished within Wetland 4.	<u> </u>			
HYDROLOGY					
Wetland Hydrology Indicators:			Secondary Indi	cators (minimum of two requ	iired)
Primary Indicators (minimum of one	e is required, check all that apply)		Surface	Soil Cracks (B6)	
X Surface Water (A1)	Aquatic Fauna (I	B13)	X Sparse	ly Vegetated Concave Surface	ce (B8)
X High Water Table (A2)	Marl Deposits (B	15) (LRR U)	Drainag	ge Patterns (B10)	
Saturation (A3)	Hydrogen Sulfide	e Odor (C1)	Moss T	rim Lines (B16)	
Water Marks (B1)	Oxidized Rhizos	pheres on Living Roots (C3	B) Dry-Sea	ason Water Table (C2)	
Sediment Deposits (B2)	Sediment Deposits (B2) Presence of Reduced Iron (C4)			n Burrows (C8)	
Drift Deposits (B3)	Recent Iron Red	uction in Tilled Soils (C6)	Saturat	ion Visible on Aerial Imagery	/ (C9)
Algal Mat or Crust (B4)	Thin Muck Surfa	ce (C7)	X Geomo	rphic Position (D2)	
Iron Deposits (B5)	Other (Explain in	Remarks)	Shallow	/ Aquitard (D3)	
Inundation Visible on Aerial	Imagery (B7)			eutral Test (D5)	
X Water Stained Leaves (B9)			Sphagr	num moss (D*) (LRR T, U)	10
Field Observations:					
Surface Water Present? Yes	X No Depth (inche	, 			
Water Table Present? Yes	X No Depth (inche	· ——			
Saturation Present? Yes	No X Depth (inche	es):	Wetland Hydrology Pre	sent? Yes X	No
(includes capillary fringe)					
Describe Recorded Data (stream ga	ge, monitoring well, aerial photos, previou	is inspections), if available:			
Remarks:					

US Army Corps of Engineers

Tona Chantum	(Diet size, Entire Wetland	Absolute	Dominant Species?	Indicator	Dominance Test worksheet:
Tree Stratum	(Plot size: Entire Wetland) <u>% Cover</u>	Species?	Status	Number of Dominant Species That Are
Stratum not present					OBL, FACW, or FAC:1(A
2,					Total Number of Dominant Species
3;					Across All Strata:1(B
				$\neg \neg$	Percent of Dominant Species That Are OBL. FACW. or FAC: 100% (A.
					OBL, FACW, or FAC:(A
6,				\longrightarrow	
7					Prevalence Index worksheet:
		0	= Total Cover	1	Total % Cover of: Multiply by:
	50% of total cover: 0	20%	6 of total cover:	0	OBL species x 1 =
Sapling / Shrub Stratum	(Plot size: Entire Wetland)			FACW species x 2 =
1. Acer rubrum		10	Y	FAC	FAC species x 3 =
2					FACU species x 4 =
					UPL species x 5 =
					Column Totals: (A)
					Prevalence Index = B/A =
				$\overline{}$	Prevalence Index - B/A -
					Hydrophytic Vegetation Indicators:
9					1 - Rapid Test for Hydrophytic Vegetation
		10	= Total Cover		X 2 - Dominance Test is >50%
	50% of total cover: 5	20%	6 of total cover	2	3 - Prevalence Index is ≤3.0¹
					4 - Morphological Adaptations ¹ (Provide
Herb Stratum	(Plot size: Entire Wetland)			supporting data in Remarks or on a separate sho
1. Stratum not present	_				Problematic Hydrophytic Vegetation ¹ (Explain)
					1 Indicators of hydric soil and wetland hydrology must
					be present, unless disturbed or problematic.
					Definitions of Vegetation Strata:
					Sommons of Vogotation out at.
					Tree Woody starts evaluding woody since
					Tree - Woody plants, excluding woody vines,
				$\overline{}$	approximately 20 ft (6 m) or more in height and 3 in.
					(7.6 cm) or larger in diameter at breast height (DBH).
10			<u> </u>		Sapling/Shrub - Woody plants, excluding woody vines,
11,					a less than 3in. DBH and greater than or equal to 3,28 ft (1 m) ta
12		8			
		0	= Total Cover		Herb - All herbaceous (non-woody) plants, regardless
	50% of total cover: 0	209	% of total cover	; 0	of size, and woody plants less than 3.28 ft. tall
Woody Vine Stratum	(Plot size: Entire Wetland	-)			
Stratum not present	• 222				Woody vine - All woody vines, greater than 3.28 ft. in height.
					,
O. -					
		-			
_					
5			- ——		[]
		0	_ = Total Cover		
	50% of total cover: 0	_ 209	% of total cover	r:0	
					Hydrophytic
					Vegetation
					Present? Yes X No
- F - W					<u> </u>
Remarks: (Include photo	numbers here or on a separate she	eet).			
	المراق والمسترك والمناف والمنافي والمنافي والمنافي والمنافي والمنافي والمنافي والمنافي والمنافية	d no plants wi	thin the denres	sion	
This wetland is locate	ed within a deep depression and ha	a no pianto wi	timi the depice		
This wetland is locate	ed within a deep depression and had	u no piants wi	ann are depres		
This wetland is locate	ed within a deep depression and ha	a no plants wi	ann aic doploc		
This wetland is locate	a within a deep depression and ha	a no plants wi	an the depres		

Profile Description: (Describe to the depth needed to document the Indicator or confirm the absence of Indicators.) Depth	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) % Type¹ Loc² Texture Remarks 0-4 10YR 4/2 90 10YR 5/6 10 C M Sa 4-20 10YR 4/3 100 Crss Type: C=concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Polyvalue Below Surface (S8) (LRR S, T, U) Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) Histosol (A2) Thin Dark Surface (S9) (LRR S, T, U) Histo Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) Histo Epipedon (A2) Loarny Mucky Mineral (F1) (LRR O) Hydrogen Sulfide (A4) Loarny Mucky Mineral (F1) (LRR O) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F3) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F3) Muck Presence (A8) (LRR U) Redox Dark Surface (F1) Muck Presence (A8) (LRR U) Redox Dark Surface (F1) Muck Presence (A8) (LRR D, T) Mart (F10) (LRR U) Thick Dark Surface (A11) Thick Dark Surface (A12) Sandy Redox (A15) (MLRA 150A) Sandy Mucky Mineral (A7) (LRR O, S) Sandy Mucky Mineral (A7) (LRR O, S) Sandy Gedox (A16) (MLRA 150A) Dark Surface (A17) (LRR O, S) Sandy Gedox (A16) (MLRA 150A) Dark Surface (A17) (LRR O, S) Sandy Gedox (A16) (MLRA 150A) Dark Surface (A17) (LRR O, S) Dark Surface (A	SOIL								Sampling Point: D	ICP-5
Depth Matrix Redox Features (inches) Color (moist) % Color (moist) % Type Loc Texture Remarks	Depth Matrix Redox Features (inches) Color (moist) % Color (moist) % Type¹ Loc² 0-4 10YR 4/2 90 10YR 5/6 10 C M Sa 4-20 10YR 4/3 100					•					
Color (moist)	Color (moist)	Profile Descrip	tion: (Describe to the	depth needs	ed to document the in	idicator or c	onfirm the a	bsence of	indicators.)		
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Type: C=concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Polyvalue Below Surface (S8) (LRR S, T, U)	Type: C=concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Polyvalue Below Surface (S8) (LRR S, T, U) Histic Epipedon (A2) Histic Epipedon (A2) Histic Epipedon (A2) Histic Epipedon (A2) Horrogen Sulfide (A4) Hydrogen Sulfide (A4) Hydrogen Sulfide (A4) Corpanic Bodies (A6) (LRR P, T, U) Histic Epipedon (A2) Hydrogen Sulfide (A4) Hydrogen Sulfide (A4) Hydrogen Sulfide (A7) Hydrogen Sulfide (A8) Form Mucky Mineral (A7) (LRR P, T, U) Horrogen Sulfide (A8) Form Mucky Mineral (A7) (LRR P, T, U) Horrogen Sulfide (A8) Form Mucky Mineral (A7) (LRR P, T, U) Horrogen Sulfide (A8) Form Mucky Mineral (A7) (LRR P, T, U) Horrogen Sulfide (A8) Form Mucky Mineral (A7) (LRR P, T, U) Horrogen Sulfide (A8) Form Mucky Mineral (A7) (LRR P, T, U) Horrogen Sulfide (A8) Form Mucky Mineral (A7) (LRR P, T, U) Horrogen Sulfide (A8) Form Mucky Mineral (A7) (LRR P, T, U) Horrogen Sulfide (A8) Form Mucky Mineral (A7) (LRR P, T, U) Horrogen Sulfide (A8) Form Mucky Mineral (A7) (LRR P, T, U) Horrogen Sulfide (A8) Form Mucky Mineral (A7) (LRR P, T, U) Horrogen Sulfide (A8) Form Mucky Mineral (A7) (LRR P, T, U) Horrogen Sulfide (A8) Form Mucky Mineral (A7) (LRR P, T, U) Horrogen Sulfide (A8) Form Mucky Mineral (A7) (LRR P, T, U) Horrogen Sulfide (A8) Form Mucky Mineral (A7) (LRR P, T, U) Depleted Below Dark Surface (A11) Form Mucky Mineral (A7) (LRR Q, S) Form Mucky Mineral (A7) Form Mineral (A7) (LRR Q, S) Form Mucky Mineral (A7) Form Mineral (A7)							IVI			
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Histosol (A1) Histosol (A2) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) Depleted Matrix (F2) Depleted Dark Surface (F6) Coast Prairie Redox (A10) Endured Vertic (F18) (outside MLRA 150A) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (outside MLRA 150A) Redox Depleted Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, Anomalous Bright Loamy Soils (F20) (MLRA 153B) Anomalous Bright Loamy Soils (F20) (MLRA 153B) Mart (F10) (LRR D, T) Depleted Dark Surface (F7) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) (LRR T, Other (Explain in Remarks) Other (Explain in Remarks) Depleted Dehric (F11) (MLRA 151) Iron-Manganese Masses (F12) (LRR O, P, T) Sandy Gleyed Matrix (S4) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Hydric Soil Present? Yes X No	Histosol (A1) Histosol (A2) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) Depleted Matrix (F2) Depleted Dark Surface (F6) Muck Presence (A8) (LRR P, T, U) 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) X Sandy Redox (S5) Stripped Matrix (S4) X Sandy Redox Dark Surface Dark Surface (F7) (MLRA 149A) Anomalous Bright Loamy Soils (F20) Mark (F10) (LRR O, P, T) Depleted Dark Surface (F12) (LRR O, P, T) Umbric Surface (F13) (LRR O, P, T) Umbric Surface (F13) (LRR P, T, U) Sandy Redox (S5) Stripped Matrix (S4) Anomalous Bright Loamy Soils (F20) Mark Surface (F13) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Restrictive Layer (If observed): Type: Depth (inches): Hydric Soil Present? Yes X No	'Type: C=conce	entration, D=Depletion,	RM=Reduce	d Matrix, CS=Covered	or Coated S	and Grains.		*Location: PL=Po	ore Lining, M=Matri	<u>x.</u>
Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Histic Epipedon (A2) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (outside MLRA 150A Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) Stratified Layers (A5) Corganic Bodies (A6) (LRR P, T, U) Formula (A7) (LRR P, T, U) Depleted Matrix (F3) Depleted Dark Surface (F6) Muck Presence (A8) (LRR U) Depleted Dark Surface (F7) Redox Depressions (F8) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Mucky Mineral (S1) Stripped Matrix (S4) Redox Depressions (F8) Very Shallow Dark Surface (TF12) (LRR T, U) Other (Explain in Remarks) Umbric Surface (F13) (LRR O, P, T) Umbric Surface (F13) (LRR P, T, U) wetland hydrology must be present, unless disturbed or problematic. Reduced Vertic (F18) (MLRA 150A) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes X No	Histosol (A1) Histosol (A2) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) Depleted Matrix (F2) Depleted Dark Surface (F6) Muck Presence (A8) (LRR P, T, U) 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) X Sandy Redox (S5) Stripped Matrix (S4) X Sandy Redox Dark Surface Dark Surface (F7) (MLRA 149A) Anomalous Bright Loamy Soils (F20) Mark (F10) (LRR O, P, T) Depleted Dark Surface (F12) (LRR O, P, T) Umbric Surface (F13) (LRR O, P, T) Umbric Surface (F13) (LRR P, T, U) Sandy Redox (S5) Stripped Matrix (S4) Anomalous Bright Loamy Soils (F20) Mark Surface (F13) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Restrictive Layer (If observed): Type: Depth (inches): Hydric Soil Present? Yes X No	Hydric Soil Ind	icators:						Indicators for Pro	oblematic Hydric	Soils ³ :
Type:	Type: Depth (inches): Hydric Soil Present? Yes X No	Histic Epip Black Histi Hydrogen S Stratified L Organic Bo 5 cm Muck Muck Pres 1 cm Muck Depleted B Thick Dark Coast Prai Sandy Muc Sandy Gle X Sandy Rec Stripped M	edon (A2) c (A3) Sulfide (A4) ayers (A5) odies (A6) (LRR P, T, U cy Mineral (A7) (LRR P, ence (A8) (LRR U) c (A9) (LRR P, T) delow Dark Surface (A1 Surface (A12) rie Redox (A16) (MLRA cky Mineral (S1) (LRR C) yed Matrix (S4) lox (S5) latrix (S6)	T, U) 1) 1 150A) O, S)	Thin Dark Surfactory Loamy Mucky M Loamy Gleyed M Depleted Matrix Redox Dark Sur Depleted Dark Sur Redox Depressi Marl (F10) (LRR Depleted Ochric Iron-Manganese Umbric Surface Delta Ochric (F1 Reduced Vertic Piedmont Flood	ce (S9) (LRF fineral (F1) (Matrix (F2) (F3) face (F6) Surface (F7) ions (F8) R U) c (F11) (MLR e Masses (F (F13) (LRR 17) (MLRA 1 (F18) (MLRA)	R S, T, U) LRR O) 12) (LRR O, F P, T, U) 51) A 150A, 150E F19) (MLRA 1	P, T) B) 149A)	2 cm Muck (Reduced Very Piedmont Flory Anomalous Extended Parent I Very Shallow Other (Explation 3 Indicators of wetland hyd unless disturbed	A10) (LRR S) rtic (F18) (outside codplain Soils (F19 Bright Loamy Soils 3) Material (TF2) v Dark Surface (TF in in Remarks) f hydrophytic veget rology must be pre) (LRR P, S, T (F20) 12) (LRR T, U) tation and esent,
Depth (inches): Hydric Soil Present? Yes X No	Depth (inches): Hydric Soil Present? Yes X No	Restrictive Lay	er (if observed):								
		• • •	· ·					ĺ.,			
Remarks:	Remarks:	Depth (incl	nes):					Hydric So	oil Present?	Yes X	No
Remarks:	Remarks:										
		Remarks:									

Project/Site:	Abingdon Woods	City/County: Ha	arford County	Sampling Date:	20-Apr-18
Applicant/Owner:	Chesapeake Real Estate Grou	up	State: MD	Sampling Point:	DCP-6
Investigator(s):	M. Jennette	Section, Township,	Range:	N/A	
Landform (hillslope, terrace, etc.):	depression	Local relief (concave, o	convex, none):no	ne Slope (%): _	1
Subregion (LLR or MLRA):	MLR 149A Lat:	39.45625° Long:	-76.29851°	Datum: _	NAD83
Soil Map Unit Name:	Alluvial land (A			IWI classification:	PFO
•	the site are typical for this time of year?			olain in Remarks)	
Are Vegetation, Soil			Are "Normal Circumstan	·	No
Are Vegetation, Soil	, or Hydrologynaturally prob	lematic?	(If needed, explain any a	nswers in Remarks.)	
SUMMARY OF FINDINGS- Attac	ch site map showing sampling point	locations, transects, imp	portant features, etc.		
Hydrophytic Vegetation Present?	Yes <u>X</u> No				
Hydric Soil Present?	Yes X No	Is the Sampled Area wi	thin a Wetland?	Yes X	No
Wetland Hydrology Present?	Yes X No			· · · · · · · · · · · · · · · · · · ·	
Remarks: The DCP was estate	blished within Wetland 10, and also represe	ents Wetland 9,			
HYDROLOGY					
Wetland Hydrology Indicators:			Secondary Indic	ators (minimum of two requi	red)
Primary Indicators (minimum of one	e is required, check all that apply)			Soil Cracks (B6)	
X Surface Water (A1)	Aquatic Fauna (B	13)	Sparsely	Vegetated Concave Surfac	e (B8)
X High Water Table (A2)	Marl Deposits (B1	15) (LRR U)	Drainage	Patterns (B10)	
Saturation (A3)	Hydrogen Sulfide	Odor (C1)	Moss Tri	m Lines (B16)	
Water Marks (B1)		heres on Living Roots (C3)		son Water Table (C2)	
Sediment Deposits (B2)	Presence of Redu	• •		Burrows (C8)	
Drift Deposits (B3)		iction in Tilled Soils (C6)		on Visible on Aerial Imagery	(C9)
Algal Mat or Crust (B4) Iron Deposits (B5)	Thin Muck Surface Other (Explain in			phic Position (D2) Aquitard (D3)	
Inundation Visible on Aerial		(Cilialks)		utral Test (D5)	
X Water Stained Leaves (B9)	• • • •			ım moss (D*) (LRR T, U)	
Field Observations:	-			7,4	
Surface Water Present? Yes	X No Depth (inches	s): 3			
Water Table Present? Yes	X No Depth (inches	s): 0			
Saturation Present? Yes	No X Depth (inche	s):	Wetland Hydrology Pres	ent? Yes X	No
(includes capillary fringe)					
Describe Recorded Data (stream ga	age, monitoring well, aerial photos, previous	s inspections), if available:			
Remarks:					
			A.I. (ii)		90

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T 011	(District Entire Medical	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum	(Plot size: Entire Wetland) <u>% Cover</u>	Species?	Status	Number of Dominant Species That Are	
1. Acer rubrum		20	Y	FAC	OBL, FACW, or FAC	5 (A)
2						
					Total Number of Dominant Species Across All Strata:	5 (B)
					Transis Till Strate.	(=/
					Percent of Dominant Species That Are	
5					OBL, FACW, or FAC	100%(A/B)
6						
					Prevalence Index worksheet:	
			= Total Cover		Total % Cover of:	Multiply by:
	50% of total cover: 10		of total cover:	4	OBL species x 1 =	
Sapling / Shrub Stratum	(Plot size: Entire Wetland	- .			FACW species x2 =	
			V	E40144		
Vaccinium corymbos				FACW	FAC species x 3 =	
					FACU species x 4 =	
3					UPL species x 5 =	
4					Column Totals: (A)	(B)
5						
					Prevalence Index = B/A =	·
					Hydrophytic Vegetation Indicators:	
						hytic Vegetation
•			- Total Court		1 - Rapid Test for Hydrop	_
	F00/ -44-4 1		= Total Cover	_	X 2 - Dominance Test is >5	111
	50% of total cover: 5	_ 20%	of total cover:	2	3 - Prevalence Index is ≤	
					4 - Morphological Adapta	tions¹ (Provide
Herb Stratum	(Plot size: Entire Wetland	_)			supporting data in Remar	ks or on a separate sheet)
1. Symplocarpus foetid	lus	40	Y	OBL	Problematic Hydrophytic	Vegetation¹ (Explain)
2. Carex sp. *		10	Y	FAC	1 Indicators of hydric soil and wetland hydr	ology must
					be present, unless disturbed or problemati	
					Definitions of Vegetation Strata:	<u>. </u>
					Deminuons of vegetation Strata.	
					 	
					Tree - Woody plants, excluding woody vine	∌\$,
7					approximately 20 ft (6 m) or more in heigh	t and 3 in.
8	0.31.33				(7.6 cm) or larger in diameter at breast hei	ght (DBH).
9						
					Sapling/Shrub - Woody plants, excluding	woody vines,
					a less than 3in. DBH and greater than or e	=
12.					[]	, , , , , , , , , , , , , , , , , , ,
		50	= Total Cover		Horb All harbassays (non-yeardy) plants	recordings
	500/ -51-1-1				Herb - All herbaceous (non-woody) plants	
	50% of total cover: 25	- 20%	of total cover:	10	of size, and woody plants less than 3.28 ft	. tali
Woody Vine Stratum	(Plot size: Entire Wetland	_)				
Smilax rotundifolia		_ 5	Y	FAC	Woody vine - All woody vines, greater tha	n 3.28 ft. in height.
2.						
4.						
5.						
·		5	= Total Cover		11	
	EDDY of total courses O. F.					
	50% of total cover: 2.5	_ 20%	of total cover:	1		
					Hydrophytic	
					Vegetation	
					Present? Yes X	No
		0			· · · · · · · · · · · · · · · · · · ·	
	numbers here or on a separate she	•				
* Carex species did	not have any identifable characterist	tics due to the t	time of year the	sample wa	as taken.	
LIC Army Corns of Engine					Atlantic and Cult Coastal Plain Page	

Profile Descripti	ion: (Describe to the o	depth needed	to document the in	dicator or o	onfirm the al	bsence of i	ndicators.)		
Depth	Matrix		ı	Redox Featu	ıres				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-20	10YR 4/1	85	10YR 4/6	15	С	M	SiL		
									-
									$\overline{}$
								F-50-20	
¹Type: C=conce	ntration, D=Depletion, I	RM=Reduced	Matrix, CS=Covered	or Coated S	Sand Grains.		² Location: PL=P	ore Lining, M=Matrix.	
Hydric Soil Indie	cators:						Indicators for P	roblematic Hydric Soils ³ :	
Histosol (A1	•	_	Polyvalue Below	•		U)		(A9) (LRR O)	
Histic Epipe	Heri.	_	Thin Dark Surfa					(A10) (LRR S)	_
Black Histic Hydrogen S		-	Loamy Mucky N Loamy Gleyed N		LRR O)			ertic (F18) (outside MLRA 150A , Toodplain Soils (F19) (LRR P, S,	
Stratified La		-	X Depleted Matrix					Bright Loamy Soils (F20)	"丨
	dies (A6) (LRR P, T, U		Redox Dark Sur				(MLRA 153		
5 cm Mucky	Mineral (A7) (LRR P,		Depleted Dark S				Red Parent	Material (TF2)	
	ence (A8) (LRR U)	_	Redox Depressi					w Dark Surface (TF12) (LRR T, I	U)
	(A9) (LRR P, T)	<u>.</u>	Mari (F10) (LRR	•	NA 4541		Other (Exp	ain in Remarks)	
V=V	elow Dark Surface (A1	1) -	Depleted Ochric		•	. T	3	ad budanahudia casatuti	- 1
	Surface (A12) ie Redox (A16) (MLRA	1504)	Iron-Manganese Umbric Surface			², I)		of hydrophytic vegetation and drology must be present,	
	ky Mineral (S1) (LRR 0		Delta Ochric (F1					turbed or problematic.	
_ ′	ed Matrix (S4)	_	Reduced Vertic			3)	dilicos dis	arbod or problematio.	
Sandy Red		_	Piedmont Flood						
Stripped Ma		_	Anomalous Brig	ht Loamy S	oils (F20) (ML	RA 149A, 1	53C, 153D)		
Dark Surface	ce (S7) (LRR P, S, T, L	J)							
L								· · · · · · · · · · · · · · · · · · ·	
Restrictive Lave	er (if observed):					I			
Туре									
Depth (inch	es):		<u> </u>			Hydric So	il Present?	Yes <u>X</u> No	
							· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	
Remarks:									
									ļ
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Project/Site:	Abingdon Woods		arford County	Sampling Date:	20-Apr-18
Applicant/Owner:	Chesapeake Real Estate Gr		State: MD	Sampling Point:	DCP-7
Investigator(s):	M. Jennette	_ Section, Township,	-	N/A	
Landform (hillslope, terrace, etc.):	hillslope	_ Local relief (concave,		ne Slope (%):	
Subregion (LLR or MLRA):	MLR 149A Lat:		-76.29850°	Datum:_	
Soil Map Unit Name:	Loamy and clayey land			NWI classification:	N/A
	the site are typical for this time of year?	Yes X		plain in Remarks)	W 41-
Are Vegetation, Soil			Are "Normal Circumstan		No
			(If needed, explain any a		
SUMMARY OF FINDINGS- Attac	ch site map showing sampling poin	t locations, transects, im	portant reatures, etc.		
Hydrophytic Vegetation Present?	Yes NoX				
Hydric Soil Present?	Yes No _X_	Is the Sampled Area wi	ithin a Wetland?	Yes	No <u>X</u>
Wetland Hydrology Present?	Yes No _X_				
Remarks: The DCP was estab	olished in wooded area between Wetland	9 and 10.	_		
HYDROLOGY					
Wetland Hydrology Indicators:			Secondary Indic	ators (minimum of two requi	red)
Primary Indicators (minimum of one	is required, check all that apply)		Surface	Soil Cracks (B6)	
Surface Water (A1)	Aquatic Fauna (B13)	Sparsely	Vegetated Concave Surfac	e (B8)
High Water Table (A2)	Marl Deposits (E	315) (LRR U)	Drainage	e Patterns (B10)	
Saturation (A3)	Hydrogen Sulfid	e Odor (C1)	Moss Tri	im Lines (B16)	
Water Marks (B1)		pheres on Living Roots (C3)		son Water Table (C2)	
Sediment Deposits (B2)	Presence of Rec	* *	Crayfish	Burrows (C8)	
Drift Deposits (B3)	Recent Iron Red	luction in Tilled Soils (C6)	Saturation	on Visible on Aerial Imagery	(C9)
Algal Mat or Crust (B4)	Thin Muck Surfa	· ,	Geomor	phic Position (D2)	
fron Deposits (B5)	Other (Explain in	n Remarks)		Aquitard (D3)	
Inundation Visible on Aerial	Imagery (B7)		FAC-Ne	utral Test (D5)	
Water Stained Leaves (B9)			Sphagnu	ım moss (D*) (LRR T, U)	
Field Observations:					
Surface Water Present? Yes	No X Depth (inche	es):			
Water Table Present? Yes	No X Depth (inche	es):			
Saturation Present? Yes	No X Depth (inche	es):	Wetland Hydrology Pres	ent? Yes	No <u>X</u>
(includes capillary fringe)					
Describe Recorded Data (stream ga	ge, monitoring well, aerial photos, previou	us inspections), if available:			
Remarks:					

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Trae Stratum	(Plot size: 30' Radius	Absolute) % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:		
Tree Stratum	(Flot size, 30 Radius	161	Species?		Number of Dominant Species That Are	•	,,,
1. Quercus alba		30	<u> </u>	FACU	OBL, FACW, or FAC:	3	.(A)
2. Acer rubrum		20	<u> </u>	FAC	Total Number of Dominant Species		
3. Fagus grandifolia		20	<u> </u>	FACU	Across All Strata;	7	(B)
4. Quercus palustris		10	N	FACW	Percent of Dominant Species That Are		l
5.					OBL, FACW, or FAC:	43%	(A/B)
6,							
7.					Prevalence Index worksheet:	242	
		80	= Total Cover		Total % Cover of:	Multiply by:	
	50% of total cover: 40	20%	6 of total cover:	16	OBL species x 1 =		.
Sapling / Shrub Stratum	(Plot size: 30' Radius	_)			FACW species x 2 =		.
1. Liquidambar styraciflu	ıa	40	Y	FAC	FAC species x 3 =		
2. Acer rubrum		20	Y	FAC	FACU species x 4 =		.
3. Fagus grandifolia		20	Y	FACU	UPL species x 5 =		.
4. Kalmia latifolia		5	N	FACU	Column Totals: (A)		(B)
5,							
					Prevalence Index = B/A =		.
					Hydrophytic Vegetation Indicators:		-
9					1 - Rapid Test for Hydrop	hytic Vegetation	l
		85	= Total Cover		2 - Dominance Test is >5	0%	
	50% of total cover: 42.5	209	6 of total cover:	17	3 - Prevalence Index is ≤3	3.01	- 1
					4 - Morphological Adaptat	ions¹ (Provide	
Herb Stratum	(Plot size: 30' Radius	_)			supporting data in Remar	ks or on a separate s	sheet)
1. Fagus grandifolia		5	<u> </u>	FACU	Problematic Hydrophytic \	√egetation¹ (Explain))
2					¹ Indicators of hydric soil and wetland hydro	ology must	1
3					be present, unless disturbed or problemati	c.	
4					Definitions of Vegetation Strata:		
5.							
6,					Tree - Woody plants, excluding woody vine	98,	
7.		-			approximately 20 ft (6 m) or more in height	and 3 in.	
8.					(7.6 cm) or larger in diameter at breast hei	ght (DBH).	
9							1
10.					Sapling/Shrub - Woody plants, excluding	woody vines,	
11.					a less than 3in. DBH and greater than or e	qual to 3.28 ft (1 m)	tall.
12		-					
		5	= Total Cover		Herb - All herbaceous (non-woody) plants,	regardless	
	50% of total cover: 2.5	_ 20%	% of total cover:	1	of size, and woody plants less than 3.28 ft.	tall	
Woody Vine Stratum	(Plot size: 30' Radius	_)					
Stratum not present					Woody vine - All woody vines, greater tha	n 3.28 ft. in height.	
2							
3,					. [
4							
5					4 1		
		0	= Total Cover				
	50% of total cover: 0	_ 20	% of total cover	0			
					Hydrophytic		
					Vegetation		
					Present? Yes	No <u>X</u>	_
Remarks: (Include photo	numbers here or on a separate she	eet).					

							Sampling Point	DCP-7	
Profile Descript	tion: (Describe to the	depth needed	to document the in	ndicator or confirm th	e absence of	indicators.)			
D	88-17			5					
Depth (inches)	Matrix Color (moist)	<u></u> %	Color (moist)	Redox Features % Type ¹	Loc ²	Touture	Bo	marks	
0-2	10YR 3/2	100	Color (moist)			Texture SiL	Re	IIIarks	
2-20	7.5YR 5/6	100				Si			
								· · ·	
							84		
¹ Type: C=conce	entration, D=Depletion,	RM=Reduced	Matrix, CS=Covered	or Coated Sand Grain	s.	² Location: Pl	=Pore Lining, M=M	atrix.	
Hydric Soil Indi							r Problematic Hyd		
'									
Histosol (A Histic Epipe	•			w Surface (S8) (LRR S , ace (S9) (LRR S, T, U)	, T, U)		ick (A9) (LRR O) ick (A10) (LRR S)		
Black Histic	. ,	•		Mineral (F1) (LRR O)			d Vertic (F18) (outs i	de MLRA 150	A.B)
	Sulfide (A4)	•	Loamy Gleyed	` ' ' '			nt Floodplain Soils (I		
Stratified L	* ' '		Depleted Matrix				ous Bright Loamy So	oils (F20)	
	odies (A6) (LRR P, T, U y Mineral (A7) (LRR P,		Redox Dark Su	. ,		(MLRA	•		
	ence (A8) (LRR U)	. 1, 0,	Depleted Dark : Redox Depress				ent Material (TF2) allow Dark Surface (TF12) (LRR T	: us -
	(A9) (LRR P, T)		Marl (F10) (LRI				xplain in Remarks)	,, (=,	, -,
	elow Dark Surface (A1	1)		c (F11) (MLRA 151)					
	Surface (A12) rie Redox (A16) (MLR A	4504)		e Masses (F12) (LRR (: (F13) (LRR P, T, U)	D, P, T)		ors of hydrophytic ve		
_	cky Mineral (S1) (LRR (100		17) (MLRA 151)			hydrology must be disturbed or problem	•	
	yed Matrix (S4)	-, -,		(F18) (MLRA 150A, 1	50B)	arnoso (alocarboa or problem	iddo.	
Sandy Red	• •			Iplain Soils (F19) (MLR					
Stripped M	atrix (S6) ce (S7) (LRR P, S, T, l	ь .	Anomalous Brig	ght Loamy Soils (F20) (MLRA 149A, 1	153C, 153D)			
	oo (o., (=, a., 1, 0, 1, 1								
Restrictive Lay	er (if observed):								10
	or the opposition.								
Туре:			_						
					Hydric Sc	oil Present?	Yes	No	
Type: Depth (inch					Hydric So	oil Present?	Yes	_ No	
Туре:					Hydric So	oil Present?	Yes	_ No	• • • • • • • • • • • • • • • • • • •
Type: Depth (inch					Hydric So	oil Present?	Yes	No	* ***
Type: Depth (inch					Hydric So	oil Present?	Yes	_ No	^
Type: Depth (inch					Hydric So	oil Present?	Yes	_ No	^
Type: Depth (inch				-	Hydric So	oil Present?	Yes	No	^
Type: Depth (inch					Hydric So	oil Present?	Yes	No	^
Type: Depth (inch					Hydric So	oil Present?	Yes	No	^
Type: Depth (inch					Hydric So	oil Present?	Yes	No	
Type: Depth (inch					Hydric So	oil Present?	Yes	No	^
Type: Depth (inch					Hydric So	oil Present?	Yes	No	
Type: Depth (inch					Hydric So	oil Present?	Yes	No	
Type: Depth (inch					Hydric So	oil Present?	Yes	No	
Type: Depth (inch					Hydric So	oil Present?	Yes	No	^
Type: Depth (inch					Hydric So	oil Present?	Yes	No	^
Type: Depth (inch					Hydric So	oil Present?	Yes	No	
Type: Depth (inch					Hydric So	oil Present?	Yes	No	
Type: Depth (inch					Hydric So	oil Present?	Yes	No	
Type: Depth (inch					Hydric So	oil Present?	Yes	No	

Project/Site:	Abingdon Woods	City/County: Ha	arford County S	Sampling Date:	20-Apr-18
Applicant/Owner:	Chesapeake Real Estate	Group		ampling Point:	DCP-8
Investigator(s)	M. Jennette	Section, Township,	Range:	N/A	
Landform (hillslope, terrace, etc.):	floodplain	Local relief (concave, o	convex, none): concav	e Slope (%):	1
Subregion (LLR or MLRA):	MLR 149A Lat:	39,45889° Long:	-76.29888°	Datum:	NAD83
Soil Map Unit Name:	Loamy and clayey la	nd, 5-15% (LyD)	NW	l classification:	PFO
Are climatic/hydrologic conditions on	n the site are typical for this time of year	r? Yes <u>X</u>	No(If no, explai	n in Remarks)	
Are Vegetation, Soil	, or Hydrologysignifican	tly disturbed?	Are "Normal Circumstances	s" present? Yes	X No
Are Vegetation, Soil	or Hydrologynaturally	problematic?	(If needed, explain any ansv	wers in Remarks.)	
SUMMARY OF FINDINGS- Attac	ch site map showing sampling po	oint locations, transects, imp	oortant features, etc.		
Hydrophytic Vegetation Present?	Yes X No				
Hydric Soil Present?	Yes <u>X</u> No	Is the Sampled Area wit	thin a Wetland?	Yes X	No
•		is the campion and the	anii a vvoiana:		··· —
Wetland Hydrology Present?	Yes <u>X</u> No				
Remarks: The DCP was estat	blished within Wetland 8.				
]
HYDROLOGY					
Wetland Hydrology Indicators:			Secondary Indicato	ers (minimum of two require	ed)
Primary Indicators (minimum of one	e is required, check all that apply)		Surface Soi	il Cracks (B6)	
X Surface Water (A1)	Aquatic Faun	a (B13)	Sparsely Ve	egetated Concave Surface	(B8)
X High Water Table (A2)	Mari Deposits	s (B15) (LRR U)	X Drainage P	atterns (B10)	
X Saturation (A3)	Hydrogen Su	lfide Odor (C1)	Moss Trim	Lines (B16)	
Water Marks (B1)	Oxidized Rhiz	zospheres on Living Roots (C3)	Dry-Seasor	n Water Table (C2)	
X Sediment Deposits (B2)	Presence of I	Reduced Iron (C4)	Crayfish Bu	rrows (C8)	
X Drift Deposits (B3)	Recent Iron F	Reduction in Tilled Soils (C6)	Saturation \	Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Thin Muck St	9 30		c Position (D2)	
X fron Deposits (B5)		n in Remarks)	Shallow Aq	• •	
Inundation Visible on Aerial			FAC-Neutra	, ,	
X Water Stained Leaves (B9)			Sphagnum	moss (D*) (LRR T, U)	
Field Observations:					
Surface Water Present? Yes		· — I			
Water Table Present? Yes Saturation Present? Yes		· — 1	Wetland Hydrology Presen	t? Yes X	No
Saturation Present? Yes (includes capillary fringe)	X No Depth (in	icnes)	wettand hydrology Presen	t? Yes X	No
Describe Recorded Data (stream ga	age, monitoring well, aerial photos, pre-	vious inspections), if available:			
Remarks:					
			AU - 101 1 O	K 0	

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T 01	(5)	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum	(Plot size: 30' Radius) <u>% Cover</u>	Species?	Status	Number of Dominant Species That Are	
1. <u>Liquidambar styraciflus</u>	9		Y	FAC	OBL, FACW, or FAC:	6(A)
Acer rubrum 3.			Y	FAC	Total Number of Dominant Species Across All Strata:	6 (B)
					ristoso i ili dilata.	(-/
					Percent of Dominant Species That Are OBL, FACW, or FAC:	(A/B)
6						
					Prevalence Index worksheet:	
		40	= Total Cover		Total % Cover of:	Multiply by:
	50% of total cover: 20	20%	of total cover:	8	OBL species x 1 =	
Sapling / Shrub Stratum	(Plot size: 30' Radius)			FACW species x 2 =	
1. Liquidambar styraciflus	9	25	Y	FAC	FAC species x 3 =	
2. Vibumum dentatum		05	Y	FAC	FACU species x 4 =	
3. Alnus serrulata			Y	FACW		
					Column Totals: (A)	
					(7)	
					Prevalence index = B/A =	
					Prevalence index = B/A =	
					I hadron budle Manadation I additionate	
	<u> </u>				Hydrophytic Vegetation Indicators:	b. 4! - 3.4 4 - 4!
9					1 - Rapid Test for Hydropl	
			= Total Cover		X 2 - Dominance Test is >50	1
	50% of total cover: 37.5	. 20%	of total cover:	15	3 - Prevalence Index is ≤3	. 1
					4 - Morphological Adaptat	· 1
Herb Stratum	(Plot size: 30' Radius	•				ks or on a separate sheet)
Symplocarpus foetidus			<u> </u>		Problematic Hydrophytic \	
					¹ Indicators of hydric soil and wetland hydro	ology must
		. ——			be present, unless disturbed or problemation	D
4					Definitions of Vegetation Strata:	
5						
					Tree - Woody plants, excluding woody vine	es,
7					approximately 20 ft (6 m) or more in height	and 3 in.
					(7.6 cm) or larger in diameter at breast heig	ght (DBH).
10					Sapling/Shrub - Woody plants, excluding v	woody vines,
11					a less than 3in. DBH and greater than or ed	qual to 3.28 ft (1 m) tall.
12						
		25	= Total Cover		Herb - All herbaceous (non-woody) plants,	regardless
	50% of total cover: 12.5	20%	of total cover:	5	of size, and woody plants less than 3.28 ft.	tall
Woody Vine Stratum	(Plot size: 30' Radius)				
1. Stratum not present		-			Woody vine - All woody vines, greater than	n 3.28 ft. in height.
2.						
3.						
4.						
5.		. ——				
	-	0	= Total Cover			
	50% of total cover: 0		of total cover:	0		
		. 20%	or total cover.			
					Hydrophytic	
					Vegetation	"
					Present? Yes X	No
Remarks: (Include photo n	umbers here or on a separate she	et).				
110.4 . 0 . 15 .						

Profile Description: (Describe to the depth need	ed to document the indicator or confirm the al	bsence of indicators.)	
Depth Matrix (inches) Color (moist) % 0-20 10YR 4/1 90	Redox Features Color (moist) % Type¹ 10YR 5/8 10 C	Loc² Texture M SiCL	Remarks
¹ Type: C=concentration, D=Depletion, RM=Reduc	ed Matrix, CS=Covered or Coated Sand Grains.	² Location: PL	=Pore Lining, M=Matrix.
Hydric Soil Indicators:		Indicators for	r Problematic Hydric Soils³:
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) 5 cm Mucky Mineral (A7) (LRR P, T, U) Muck Presence (A8) (LRR U) 1 cm Muck (A9) (LRR P, T) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U)	Polyvalue Below Surface (S8) (LRR S, T, Thin Dark Surface (S9) (LRR S, T, U) Loamy Mucky Mineral (F1) (LRR O) Loamy Gleyed Matrix (F2) X Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Marl (F10) (LRR U) Depleted Ochric (F11) (MLRA 151) Iron-Manganese Masses (F12) (LRR O, F Umbric Surface (F13) (LRR P, T, U) Delta Ochric (F17) (MLRA 151) Reduced Vertic (F18) (MLRA 150A, 150E Piedmont Floodplain Soils (F19) (MLRA 1	2 cm Mu Reduced Piedmon Anomald (MLRA 1 Red Parr Very Sha Other (E P, T) 3Indicato wetland unless of	ick (A9) (LRR O) ick (A10) (LRR S) d Vertic (F18) (outside MLRA 150A,B) it Floodplain Soils (F19) (LRR P, S, T) bus Bright Loamy Soils (F20) 153B) ent Material (TF2) allow Dark Surface (TF12) (LRR T, U) explain in Remarks) ers of hydrophytic vegetation and hydrology must be present, disturbed or problematic.
Restrictive Layer (if observed): Type: Depth (inches):		Hydric Soil Present?	Yes X No
Remarks:			

Project/Site:	Abingdon Woods	City/County:	Harford County	Sampling Date:	20-Apr-18
Applicant/Owner:	Chesapeake Real Estat	e Group	State: MD	Sampling Point:	DCP-9
Investigator(s):	M. Jennette	Section, Tow	nship, Range:	N/A	
Landform (hillslope, terrace, etc.):	upland floodplain	Local relief (con	cave, convex, none):	none Slope (%)	: 0
Subregion (LLR or MLRA):	MLR 149A Lat:	39.45929°	Long: -76.29914	Datum	: NAD83
Soil Map Unit Name:	Alluvial la	and, (Av)		NWI classification:	N/A
Are climatic/hydrologic conditions or	the site are typical for this time of ye	ar? Yes _	X No(If no,	explain in Remarks)	
Are Vegetation, Soil	_ , or Hydrologysignification	antly disturbed?	Are "Normal Circumst	ances" present? Yes	X No
Are Vegetation, Soil	, or Hydrology naturall	y problematic?	(If needed, explain an	y answers in Remarks.)	
SUMMARY OF FINDINGS- Attac	ch site map showing sampling	point locations, transect	s, important features, et	c.	
Hydrophytic Vegetation Present?	Yes No _X				
Hydric Soil Present?	Yes No X	Is the Sampled A	rea within a Wetland?	Yes	No X
Wetland Hydrology Present?	Yes NoX				
Remarks: The DCP was estal	olished in a wooded floodplain betwe	en Wetlands 7 and 8.			
HYDROLOGY					
Wetland Hydrology Indicators:			Casadanilai	diaghan (minimum af hun an	- viae all
Primary Indicators (minimum of one	is required shock all that apply			dicators (minimum of two red	<u>(uirea)</u>
Surface Water (A1)		ma /D42\		ce Soil Cracks (B6)	inna (DO)
High Water Table (A2)	Aquatic Fat			ely Vegetated Concave Surf	ace (B8)
Saturation (A3)		its (B15) (LRR U)		age Patterns (B10)	
Water Marks (B1)		ulfide Odor (C1) nizospheres on Living Roots		Trim Lines (B16) eason Water Table (C2)	
Sediment Deposits (B2)		Reduced Iron (C4)		sh Burrows (C8)	
Drift Deposits (B3)		Reduction in Tilled Soils (C		ation Visible on Aerial Image	n. (CO)
Algal Mat or Crust (B4)		Surface (C7)		orphic Position (D2)	Iy (C3)
Iron Deposits (B5)		ain in Remarks)		w Aquitard (D3)	
Inundation Visible on Aerial		an m nomana)		Neutral Test (D5)	
Water Stained Leaves (B9)				num moss (D*) (LRR T, U)	
``´					
Field Observations: Surface Water Present? Yes	No X Depth (inahaa).			
Water Table Present? Yes		inches):			
Saturation Present? Yes		inches):	Wetland Hydrology Pi	resent? Yes	No X
(includes capillary fringe)	NO _X Debut		vvetaliu nydiology ri		_ No <u>X</u> _
	as manitoring well appeal photos as	ovious inanastians) if avails	hlo:		
Describe Recorded Data (stream ga	ge, monitoring well, aerial photos, pr	evious inspections), ir avalla	ible.		
Remarks:					

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		Absolute	Dominant	Indicator	Dominance Test worksheet:		l
Tree Stratum	(Plot size: 30' Radius	% Cover	Species?	Status	Number of Dominant Species That Are		
1. Fagus grandifolia		25	<u> </u>	FACU	OBL, FACW, or FAC:	2	(A)
2. Liriodendron tulipifera		25	Y	FACU	Total Number of Dominant Species		.
 Liquidambar styraciflus 	a	25	<u> </u>	FAC	Across All Strata:	4	_(B)
4. Carpinus caroliniana		5	N	FAC			- 1
5,					Percent of Dominant Species That Are OBL, FACW, or FAC:	50%	(A/B)
					8 2		
					Prevalence Index worksheet:		
			= Total Cover		Total % Cover of:	Multiply by:	_ 1
	50% of total cover: 40	20%	of total cover:	16	OBL species x 1 =		
Sapling / Shrub Stratum	(Plot size: 30' Radius)			FACW species x 2 =		
1. Carpinus caroliniana		5	Y	FAC	FAC species x 3 =		
2.					FACU species x 4 =		
					UPL species x 5 =		
					Column Totals:(A)		
							_
					Prevalence Index = B/A =		_
						-	
					Hydrophytic Vegetation Indicators:		\Box
					1 - Rapid Test for Hydrop	hytic Vegetation	- 1
			= Total Cover		2 - Dominance Test is >5	0%	
	50% of total cover: 2.5	20%	of total cover:	1	3 - Prevalence Index is ≤3	3.01	
	-				4 - Morphological Adaptat	ions¹ (Provide	
Herb Stratum	(Plot size: 30 Radius)			supporting data in Remar	ks or on a separate	sheet)
1. Stratum not present	10.00				Problematic Hydrophytic	√egetation¹ (Explair	1)
2.					Indicators of hydric soil and wetland hydro	ology must	·
					be present, unless disturbed or problemati	c.	
					Definitions of Vegetation Strata:		\Box
							1
					Tree - Woody plants, excluding woody vine	es,	1
					approximately 20 ft (6 m) or more in height	and 3 in.	-
					(7.6 cm) or larger in diameter at breast hei	ght (DBH).	1
					Sapling/Shrub - Woody plants, excluding	woody vines,	1
					a less than 3in. DBH and greater than or e	qual to 3.28 ft (1 m) tall.
12.							
		0	= Total Cover		Herb - All herbaceous (non-woody) plants,	regardless	
	50% of total cover: 0	20%	6 of total cover:	: 0	of size, and woody plants less than 3.28 ft	tall	
Woody Vine Stratum	(Plot size: 30' Radius)					- 1
1. Stratum not present					Woody vine - All woody vines, greater tha	n 3.28 ft. in height.	
2							l
3,							j
4							- 1
5]		
11		0	= Total Cover				ŀ
	50% of total cover: 0	20%	% of total cover	0			
					Hydrophytic		- 1
					Vegetation		
					Present? Yes	No <u>X</u>	_
Remarks: (Include photo	numbers here or on a separate she	et)			I.d.		\dashv
		/'					
							İ

Profile Descrip	tion: (Describe to the d	epth needed to	document the in	dicator or co	onfirm the a	bsence of i	ndicators.)		
Depth	Matrix			Redox Featur	roc				
(inches)	Color (moist)	<u></u> %	Color (moist)	%	Type ¹	Loc²	Texture	Por	narks
0-15	10YR 4/3	95	10YR 3/6	5	C	M	SiL	Ren	lains
15-20	10YR 6/1	90	10YR 5/6	10	C		SiL		
								· · · · ·	_
			VT.						
						•			
						-			
¹Type: C=conce	entration, D=Depletion, R	RM=Reduced Ma	trix, CS=Covered	or Coated Sa	and Grains.		² Location: PL:	Pore Lining, M=Ma	trix.
Hydric Soil Ind	icators:				· · · · · ·		Indicators for	Problematic Hydri	c Soils³:
Histosol (A	1)		Polyvalue Below	Surface (S8)/IRRS T	10	1 cm Mur	ck (A9) (LRR O)	
Histic Epip	•		Thin Dark Surface			0,		x (A3) (LRR 0)	2
Black Histic		_	Loamy Mucky M					Vertic (F18) (outsid	le MLRA 150A.B)
	Sulfide (A4)	_	Loamy Gleyed N		-,			Floodplain Soils (F	
Stratified L		_	Depleted Matrix	, ,				us Bright Loamy Soil	
	odies (A6) (LRR P, T, U)	_	Redox Dark Sur				(MLRA 1		· '
	y Mineral (A7) (LRR P, 1	Γ, U)	Depleted Dark S	Surface (F7)			•	nt Material (TF2)	l
	ence (A8) (LRR U)		Redox Depressi					llow Dark Surface (T	F12) (LRR T, U)
	(A9) (LRR P, T)		Marl (F10) (LRR	-			Other (Ex	plain in Remarks)	=
_	selow Dark Surface (A11))	Depleted Ochric		•				l
	Surface (A12)		Iron-Manganese			P, T)		s of hydrophytic veg	
	rie Redox (A16) (MLRA		Umbric Surface					hydrology must be p	
	cky Mineral (S1) (LRR O,	, S)	Delta Ochric (F1		•		unless di	isturbed or problema	atic.
	yed Matrix (S4)		Reduced Vertic						
Sandy Red			Piedmont Flood			•	F00 4F0D)		
Stripped M			Anomalous Brig	nt Loamy Soi	IIS (FZU) (IVIL	KA 149A, 1	53C, 153D)		
— Daik Sulla	ce (S7) (LRR P, S, T, U)	,							
Restrictive Lay Type: Depth (incl	er (if observed):					Hydric So	il Present?	Yes	No X
Domestre									
Remarks:									=
									1
									i
1									
1									
1									

Project/Site:	Abingdon Woods	City/County:	Harford Cou	nty Sampling D)ate:	20-Apr-18	
Applicant/Owner:	Chesapeake Real Estate	Group	State:	MD Sampling P	oint:	DCP-10	
Investigator(s):	M. Jennette	Section, Tow	nship, Range:		N/A		
Landform (hillslope, terrace, etc.):	depression/slope	Local relief (cor	cave, convex, no	ne): concave	Slope (%):	3	
Subregion (LLR or MLRA):	MLR 149A Lat	39.45962°	Long:	-76.29914°	Datum:	NAD83	
Soil Map Unit Name:	Loamy and clayey land,	5-15% slopes (LyD)	,	NWI classifica	ition:	PFO	
Are climatic/hydrologic conditions or	n the site are typical for this time of year	? Yes	X No	(If no, explain in Rema	ırks)		
Are Vegetation, Soil	, or Hydrology significan	tly disturbed?	Are "Norm	nal Circumstances" present?	? Yes	X No	
Are Vegetation Soil		problematic?	(If needed	, explain any answers in Re	marks.)		
SUMMARY OF FINDINGS- Atta	ch site map showing sampling po	int locations, transec	ts, important fe	eatures, etc.			
Hydrophytic Vegetation Present?	Yes _ X _ No						
Hydric Soil Present?	Yes <u>X</u> No	Is the Sampled	∖rea within a Wet	land? Y	'es <u>X</u>	No	
Wetland Hydrology Present?	Yes <u>X</u> No						
Remarks: The DCP was esta	blished within Wetland 7.	•			7		
HYDROLOGY							
Wetland Hydrology Indicators:			S	econdary Indicators (minimu	um of two require	ed)	
Primary Indicators (minimum of on	e is required, check all that apply)		_	Surface Soil Cracks (_	
X Surface Water (A1)	Aquatic Faun	a (B13)		Sparsely Vegetated C	•	(B8)	
X High Water Table (A2)		(B15) (LRR U)	(5) (LRR U) X Drainage Patterns (B10)				
X Saturation (A3)		fide Odor (C1)					
Water Marks (B1)			heres on Living Roots (C3) Dry-Season Water Table (C2)				
Sediment Deposits (B2)		Reduced Iron (C4)	_	Crayfish Burrows (C8		100	
Drift Deposits (B3)		50 (d) 1965 (d)	uction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4)	Thin Muck Su	NO 79955		Geomorphic Position	1 100 1100 -	,	
Iron Deposits (B5)		n in Remarks)		Shallow Aquitard (D3)	, ,		
Inundation Visible on Aerial		,		FAC-Neutral Test (D5	•		
Water Stained Leaves (B9)			-	Sphagnum moss (D*)	•		
		1					
Field Observations: Surface Water Present? Yes	X No Depth (in	ches): 2					
Water Table Present? Yes							
Saturation Present? Yes		,	Wetland I	Hydrology Present?	res X	No	
(includes capillary fringe)			vvoudila i	Tyarology i Todonki			
Describe Recorded Data (stream g	age, monitoring well, aerial photos, prev	vious inspections), if avail	able:				
Remarks:							

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Tono Charles (District 201 Destina	Absolute	Dominant	Indicator	Dominance Test worksheet:	15
Tree Stratum (Plot size: 30' Radius)	% Cover	Species?	Status	Number of Dominant Species That Are	
1. Nyssa sylvatica	20	<u> </u>	FAC	OBL, FACW, or FAC:	(A)
2. Acer rubrum	20	<u> </u>	FAC	Total Number of Dominant Species	
3. Liquidambar styraciflua	10	<u> </u>	FAC	Across All Strata:	(B)
4					
5				Percent of Dominant Species That Are OBL, FACW, or FAC:	100% (A/B)
6				· · · · · · · · · · · · · · · · · ·	
7				Prevalence Index worksheet:	
		= Total Cover	-	Total % Cover of:	Multiply by:
50% of total cover: 25	20%	6 of total cover:	10	OBL species x 1 =	
Sapling / Shrub Stratum (Plot size: 30' Radius)		-		FACW species x 2 =	
1. Liquidambar styraciflua	10	_ Y	FAC	FAC species x 3 =	
2. Acer rubrum			FAC	FACU species x 4 =	
3				UPL species x 5 =	
4.				Column Totals:(A)	
5.				.,	
6.				Prevalence Index = B/A = _	
7					
8				Hydrophytic Vegetation Indicators:	
9.				1 - Rapid Test for Hydrophy	tic Vegetation
	20	= Total Cover		X 2 - Dominance Test is >50%	•
50% of total cover: 10		of total cover:	4	3 - Prevalence Index is ≤3.0	
		•		4 - Morphological Adaptation	
Herb Stratum (Plot size: 30' Radius)				supporting data in Remarks	11.
Microstegium vimineum	40	Y	FAC	Problematic Hydrophytic Ve	
2.				¹ Indicators of hydric soil and wetland hydrolo	
3.				be present, unless disturbed or problematic.	gy must
				Definitions of Vegetation Strata:	
5				beamsons of vegetation strate.	
6.				Tree - Woody plants, excluding woody vines,	
7				approximately 20 ft (6 m) or more in height a	
				(7.6 cm) or larger in diameter at breast heigh	
8. 9.				(7.0 cm) or ranger in diameter at breast neigh	(UBH).
10.				Sapling/Shrub - Woody plants, excluding wo	andy vinos
11				a less than 3in. DBH and greater than or equ	
				a less than one. Don't and greater than or equ	ai to 3.20 it (1 iii) taii.
12	40	= Total Cover		Horb - All herhodosus (non woods) plante en	and an
50% of total cover: 20		of total cover:	8	Herb - All herbaceous (non-woody) plants, re of size, and woody plants less than 3.28 ft. ta	
Woody Vine Stratum (Plot size: 30' Radius)	20 /	or total cover.		or size, and woody plants less than 5.26 ft. ta	м
Toxicodendron radicans	5	Υ	FAC	Woody vine - All woody vines, greater than 3	2 20 ft in beight
2.		 -	120	woody vine - All woody vines, greater than s).20 II. III rieigiii.
3.					
4					
5.					
v		= Total Cover		}	
50% of total cover: 2.5		of total cover:			
50% of total cover:2.5	20%	o or total cover.	1		
				Lhudrambu etc	
				Hydrophytic	
				Vegetation	Ma
				Present? Yes X	
Remarks: (Include photo numbers here or on a separate sheet)).				
2					

Depth Matrix				Redox Featu	ıres				
0-14 14-20	Color (moist) 10YR 5/2 10YR 6/6	% 80 100	Color (moist) 7.5YR 5/8	% 20	Type¹ C	Loc² M	Texture Sil. GrSa	Remarks	
dric Soil Indi Histosol (A Histic Epipe Black Histic	1) edon (A2) c (A3)	RM=Reduced	Polyvalue Belov Thin Dark Surfa Loamy Mucky N	v Surface (S ce (S9) (LR lineral (F1)	8) (LRR S , T, R S , T, U)	U)	1 cm Muck (A 2 cm Muck (A Reduced Vert	blematic Hydric Soils ³ : 9) (LRR O) 10) (LRR S) ic (F18) (outside MLRA 150A,B)	
Stratified Li Organic Bo 5 cm Muck Muck Prese 1 cm Muck Depleted B Thick Dark Coast Prair Sandy Muc Sandy Gley Sandy Red Stripped M	dies (A6) (LRR P, T, U y Mineral (A7) (LRR P, ence (A8) (LRR U) (A9) (LRR P, T) lelow Dark Surface (A1 Surface (A12) rie Redox (A16) (MLRA cky Mineral (S1) (LRR 0 lyed Matrix (S4)	1) 1) (150A) (), S)	Loamy Gleyed M X Depleted Matrix Redox Dark Sur Depleted Dark S Redox Depressi Marl (F10) (LRF Depleted Ochric Iron-Manganese Umbric Surface Umbric Surface Delta Ochric (F Reduced Vertic Piedmont Flood Anomalous Brig	(F3) face (F6) Surface (F7) ons (F8) t U) t (F11) (MLF Masses (F (F13) (LRR 17) (MLRA (F18) (MLR	RA 151) 12) (LRR O, F P, T, U) 151) IA 150A, 150B F19) (MLRA 1	8) 49A)	Anomalous Bi (MLRA 153B) Red Parent M Very Shallow Other (Explain 3Indicators of wetland hydrunless disturb	aterial (TF2) Dark Surface (TF12) (LRR T, U)	
e strictive Lay Type: Depth (incl	er (if observed):					Hydric Sc	oil Present?	Yes X No	
emarks:									

Project/Site:	Abingdon Woods	City/County:	Harford County	Sampling Date:	20-Apr-18
Applicant/Owner:	Chesapeake Real Es	tate Group	State: MD	Sampling Point:	DCP-11
Investigator(s):	M. Jennette	Section, Townsh	ip, Range:	N/A	
Landform (hillslope, terrace, etc.):	depression	Local relief (concav	e, convex, none): con	cave Slope (%): _	1
Subregion (LLR or MLRA):	MLR 149A Lat	: <u>39.46024°</u> Lor	ng:76.29938°	Datum: _	NAD83
Soil Map Unit Name:	Alluvia	al land (Av)		NWI classification:	PFO
Are climatic/hydrologic conditions on		year? Yes X	No (If no, ex	plain in Remarks)	
Are Vegetation, Soil		ficantly disturbed?	Are "Normal Circumstar	nces" present? Yes _	No
Are Vegetation, Soil	natur	rally problematic?	(If needed, explain any	answers in Remarks.)	
SUMMARY OF FINDINGS- Attac	h site map showing samplin	g point locations, transects,	important features, etc.		
Hydrophytic Vegetation Present?	Yes X No				
Hydric Soil Present?	Yes X No	_	within a Wetland?	Yes X	No
Wetland Hydrology Present?	Yes X No	_			
Remarks: The DCP was estab	olished within Wetland 5.				
HYDROLOGY					
Wetland Hydrology Indicators:			Secondary India	cators (minimum of two requi	ired)
Primary Indicators (minimum of one	is required, check all that apply)		Surface	Soil Cracks (B6)	
X Surface Water (A1)	Aquatic I	Fauna (B13)	Sparsel	y Vegetated Concave Surfac	e (B8)
X High Water Table (A2)	Marl Dep	osits (B15) (LRR U)	X Drainag	e Patterns (B10)	
X Saturation (A3)	Hydroger	n Sulfide Odor (C1)	Moss Tr	rim Lines (B16)	
Water Marks (B1)	Oxidized	Rhizospheres on Living Roots (C	3) Dry-Sea	son Water Table (C2)	
Sediment Deposits (B2)	Presence	e of Reduced Iron (C4)	Crayfish	Burrows (C8)	
Drift Deposits (B3)	Recent In	ron Reduction in Tilled Soils (C6)	Saturati	on Visible on Aerial Imagery	(C9)
Algal Mat or Crust (B4)	Thin Muc	ck Surface (C7)	Geomoi	rphic Position (D2)	
Iron Deposits (B5)		xplain in Remarks)	Shallow	Aquitard (D3)	
Inundation Visible on Aerial	Imagery (B7)			eutral Test (D5)	1.
X Water Stained Leaves (B9)			Sphagn	um moss (D*) (LRR T, U)	
Field Observations:	-				
Surface Water Present? Yes	X No Dept	h (inches):4			
Water Table Present? Yes		h (inches):4			
Saturation Present? Yes	X No Dept	th (inches):0	Wetland Hydrology Pres	sent? Yes X	No
(includes capillary fringe)					Λ
Describe Recorded Data (stream ga	ge, monitoring well, aerial photos,	previous inspections), if available		-	19
Remarks:					

US Army Corps of Engineers

	Absolute	Dominant	Indicator	Dominance Test worksheet:		ļ
Tree Stratum (Plot size: 30' Radius	_) <u>% Cover</u>	Species?	Status	Number of Dominant Species That Are		
Liquidambar styraciflua	50	<u> </u>	FAC	OBL, FACW, or FAC:	4((A)
2 Acer rubrum	30	<u> </u>	FAC	Total Number of Dominant Species		
3				Across All Strata	((B)
4						ļ
5				Percent of Dominant Species That Are OBL, FACW, or FAC:	100% (/	(A/B)
				JOSE TAGW, SITAG.		,,,,
6				Prevalence Index worksheet:		\neg
7.		= Total Cover		Total % Cover of:	Maddinha bar	
500/ of total across 40	100		40		Multiply by:	
50% of total cover; 40	_	6 of total cover:	16	OBL species x1 =		
Sapling / Shrub Stratum (Plot size: 30' Radius	- '	v	54014	FACW species x 2 =		
	40	<u> </u>	FACW	FAC species x 3 =		
2. Liquidambar styraciflua		<u>N</u>	FAC	FACU species x 4 =		
3. Fagus grandifolia		<u> </u>	FACU	UPL species x 5 =		
4,				Column Totals: (A)		(B)
5,						
6,				Prevalence Index = B/A =		
7.						
8,				Hydrophytic Vegetation Indicators:		
9,				1 - Rapid Test for Hydrop	nytic Vegetation	
	60	= Total Cover		X 2 - Dominance Test is >50	J%	
50% of total cover: 30	20%	6 of total cover:	12	3 - Prevalence Index is ≤3		
				4 - Morphological Adaptat	ions ¹ (Provide	
Herb Stratum (Plot size: 30' Radius	_)			supporting data in Remark	ks or on a separate sl	heet)
1. Osmunda cinnamomea	40	Y	FACW	Problematic Hydrophytic \	/egetation ¹ (Explain)	
2. Carex stricta	10	N	OBL	Indicators of hydric soil and wetland hydro	ology must	
3. Symplocarpus foetidus	10	N	OBL	be present, unless disturbed or problemation	C.	
4				Definitions of Vegetation Strata:		
5						
6.				Tree - Woody plants, excluding woody vine	es,	
7.				approximately 20 ft (6 m) or more in height	and 3 in.	
8,				(7.6 cm) or larger in diameter at breast hei		
9.					• • •	
10				Sapting/Shrub - Woody plants, excluding	woodv vines.	
11,				a less than 3in. DBH and greater than or e	•	tall
				a loos man one por and group, man, or o	quanto 0.20 it (1 iii) i	tom.
12:	60	= Total Cover		Herb - All herbaceous (non-woody) plants,	renardless	
50% of total cover: 30		6 of total cover:	: 12	of size, and woody plants less than 3.28 ft.		
Woody Vine Stratum (Plot size: 30' Radius	_,	o or total cover.		of size, and woody plants less than 5,20 ft.	tan	
	_'			Miles de vilne. All woods vince, granter the	n 2 20 ft in height	
1. Stratum not present				Woody vine - All woody vines, greater tha	ii 3,26 it, in neight,	
2.		. ——				
3				-		
4				-		
5.				-		
	0	_= Total Cover				
50% of total cover: 0	209	% of total cover	0	1		
				Hydrophytic		
				Vegetation		
				Present? Yes X	No	
Remarks: //nclude photo numbers have as an a consiste sh	neet)			1.1		
Remarks: (Include photo numbers here or on a separate sh	icel).					

Tome Descrip	tion: (Describe to the	depth neede	d to document the in	dicator or c	onfirm the a	bsence of	indicators.)		
Depth	Matrix		F	Redox Featu	res				
(inches) 0-14	Color (moist) 10YR 2/1	100	Color (moist)	%	Type ¹	Loc2	Texture Sal.	Rem	arks
14-20	10YR 4/2	80	7.5YR 5/8	20	С	M	SaL SaL		-11
							11	4 11	
ype: C=conce	entration, D=Depletion,	RM=Reduced	Matrix, CS=Covered	or Coated S	and Grains.	-	² Location: PL=	Pore Lining, M=Mat	nix.
ydric Soil Indi	icators:						Indicators for	Problematic Hydric	c Soils³:
Stratified L. Organic Bo 5 cm Muck Muck Press 1 cm Muck Depleted B C Thick Dark Coast Prair Sandy Muc Sandy Gley Sandy Red Stripped M Dark Surfa	edon (A2) c (A3) Sulfide (A4) ayers (A5) sdies (A6) (LRR P, T, U y Mineral (A7) (LRR P, ence (A8) (LRR U) (A9) (LRR P, T) selow Dark Surface (A1 Surface (A12) ric Redox (A16) (MLRA cky Mineral (S1) (LRR C yed Matrix (S4) lox (S5) atrix (S6) ce (S7) (LRR P, S, T, U	1) 1) (150A) (), S)	Polyvalue Below Thin Dark Surfac Loamy Mucky M Loamy Gleyed M Depleted Matrix Redox Dark Surf Depleted Dark S Redox Depressi Marl (F10) (LRR Depleted Ochric Iron-Manganese Umbric Surface Delta Ochric (F1 Reduced Vertic Piedmont Flood Anomalous Bright	ce (S9) (LRF lineral (F1) (Matrix (F2) (F3) face (F6) Surface (F7) ons (F8) R U) F(F11) (MLR Masses (F1) (F13) (LRR I7) (MLRA 1 (F18) (MLRA plain Soils (F	R S, T, U) LRR O) 12) (LRR O, F P, T, U) 51) A 150A, 150E F19) (MLRA 1	P, T) 3) 49A)	2 cm Muc Reduced Piedmont Anomalou (MLRA 1: Red Pare Very Sha Other (Ex	ik (A9) (LRR O) ik (A10) (LRR S) Vertic (F18) (outsid Floodplain Soils (F1 is Bright Loamy Soil 53B) It Material (TF2) Ilow Dark Surface (T plain in Remarks) s of hydrophytic veg hydrology must be pi sturbed or problema	(19) (LRR P, S, T s (F20) F12) (LRR T, U) etation and resent,
Type:	er (if observed):		_						
Depth (inch	nes):					Hydric So	oil Present?	Yes X	No
emarks:									

Project/Site:	Abingdon Woods	City/County: H	arford County	Sampling Date:	20-Apr-18
Applicant/Owner:	Chesapeake Real Estate Gro	oup	State: MD	Sampling Point	DCP-12
Investigator(s):	M. Jennette	Section, Township,	Range;	N/A	
Landform (hillstope, terrace, etc.):	depression	Local relief (concave,	convex, none):cond	cave Slope (%):	0
Subregion (LLR or MLRA):	MLR 149A Lat	39,45902° Long:	-76.29950°	Datum: _	
Soil Map Unit Name:	Alluvial land (Av)	N	WI classification:	PFO
· # # # # # # # # # # # # # # # # # # #	the site are typical for this time of year?	Yes <u>X</u>		plain in Remarks)	
Are Vegetation, Soil	, or Hydrology significantly o	disturbed?	Are "Normal Circumstan	ces" present? Yes _	No
Are Vegetation, Soil	or Hydrology naturally pro	blematic?	(If needed, explain any a	nswers in Remarks.)	
SUMMARY OF FINDINGS- Attac	ch site map showing sampling point	t locations, transects, im	portant features, etc.		
Hydrophytic Vegetation Present?	Yes _ X _ No				
Hydric Soil Present?	Yes <u>X</u> No	Is the Sampled Area w	ithin a Wetland?	Yes X	No
Wetland Hydrology Present?	Yes <u>X</u> No				
Remarks: The DCP was estal	blished within Wetland 6, a depression at	the head of Waters G.			
LIN/DDOLGOV	м				
HYDROLOGY	41				
Wetland Hydrology Indicators:	- No. of the state		Control of Park Control of the Contr	ators (minimum of two require	red)
Primary Indicators (minimum of one		740		Soil Cracks (B6)	(00)
X Surface Water (A1)	X Aquatic Fauna (f			Vegetated Concave Surface	e (Rg)
X High Water Table (A2)	Marl Deposits (B			e Patterns (B10)	
Saturation (A3)	Hydrogen Sulfide	60		im Lines (B16)	
Water Marks (B1)		pheres on Living Roots (C3)		son Water Table (C2)	
Sediment Deposits (B2)	Presence of Red	and the same of th		Burrows (C8)	(00)
Drift Deposits (B3)		uction in Tilled Soils (C6)		on Visible on Aerial Imagery	(C9)
Algal Mat or Crust (B4)	Thin Muck Surfa	· ·		phic Position (D2)	
Iron Deposits (B5)	Other (Explain in	n Remarks)		Aquitard (D3)	
x Inundation Visible on Aerial Water Stained Leaves (B9)				utral Test (D5) um moss (D*) (LRR T, U)	
		<u> </u>	— Spriagni	um muss (D) (LRK 1, U)	
Field Observations:	V Ala Dante Carte	12			
Surface Water Present? Yes	: :				
Water Table Present? Yes Saturation Present? Yes		· · · · · · · · · · · · · · · · · · ·	Wetland Hydrology Pres	sent? Yes X	No
(includes capillary fringe)	Depar (mone		vveuanu riyulology Pres	sent: 165 X	
1999	age, monitoring well, aerial photos, previou	us inspections), if available:			
					<u>.</u>
Remarks: Tadpoles were pres	sent within the wetland.				
US Army Corps of Engineers			Atlantic and	Gulf Coastal Plain Region-V	ersion 2.0
					W . E

		Absolute	Dominant	Indicator	Dominance Test worksheet:			
Tree Stratum	(Plot size: Entire Wetland) <u>% Cover</u>	Species?	Status	Number of Dominant Species That Are			
1. Acer rubrum		5	Y	FAC	OBL, FACW, or FAC:		3	_(A)
2. Liquidambar styraciflus	a	5	Υ	FAC				
3					Total Number of Dominant Species Across All Strata:		3_	(B)
							-	_ ` '
					Percent of Dominant Species That Are		100%	(A/B)
					OBL, FACW, or FAC:		100%	- ^(A/D)
					Bassalana Indassa da basa			
·			Total Cover		Prevalence Index worksheet:			
	EDD/ of total covery				Total % Cover of:	_	Multiply by:	-
Continue / Charle Ctratum	50% of total cover: 5	,	of total cover:	2	OBL species			-
Sapling / Shrub Stratum	(Plot size: Entire Wetland	.)			FACW species			
Stratum not present								
					FACU species	_		_
						_		_
4					Column Totals:	_ (A)		_ ^(B)
					Prevalence Index	= B/A =		_
					Hydrophytic Vegetation Indicato	rs:		
9			7		1 - Rapid Test for	Hydroph	nytic Vegetation	
			= Total Cover		X 2 - Dominance Te	est is >50)%	
	50% of total cover: 0	. 20%	of total cover:		3 - Prevalence In	S≥ si xet	.01	
					4 - Morphological	Adaptati	ions ¹ (Provide	
Herb Stratum	(Plot size: Entire Wetland	.)			supporting data it	Remark	s or on a separat	e sheet)
 Symplocarpus foetidus 	S	5	Y	OBL	Problematic Hydr	ophytic \	egetation ¹ (Expla	in)
2					¹ Indicators of hydric soil and wetla	nd hydro	ology must	
3					be present, unless disturbed or pre-	blematic	<u>. </u>	
	<u>-</u>				Definitions of Vegetation Strata:			
	444							
					Tree - Woody plants, excluding wo	ody vine	es,	
					approximately 20 ft (6 m) or more	n height	and 3 in.	
					(7.6 cm) or larger in diameter at br	east heig	aht (DBH).	
10.					Sapling/Shrub - Woody plants, ex	cluding v	woody vines,	
					a less than 3in. DBH and greater t			ı) tall.
12.								
<u> </u>		5 :	= Total Cover		Herb - All herbaceous (non-woody) plants.	regardless	
	50% of total cover: 2.5	20%	of total cover:	. 1	of size, and woody plants less that			
Woody Vine Stratum	(Plot size: Entire Wetland				por occopy and occopy practice states		von	
Stratum not present		,,			Woody vine - All woody vines, gre	ater than	3 28 ft in height	
							· ····································	
4.					ł 			
5								
·		0 :	= Total Cover	-				
	50% of total cover: 0		of total cover:					
	30 % of total cover.	. 2070	o total cover.	_ -				
					Hydrophytic			
					Vegetation			
					Present? Yes	s <u>X</u>	_ No]
Remarks: (Include photo r	numbers here or on a separate she	et).						

Sampling Point: DCP-12

Profile Description: (Describe to the depth need	ded to document the indicator or confirm the ab	sence of indicators.)	
Depth Matrix	Redox Features		
(inches) Color (moist) %	Color (moist) % Type ¹	Loc ² Texture	Remarks
0-5 10YR 4/1 90	7.5YR 5/8 10 C	M LC	
5-20 10YR 5/2 80	7.5YR 5/8 20 C	M LC	
¹ Type: C=concentration, D=Depletion, RM=Reduc	ced Matrix, CS=Covered or Coated Sand Grains.	² Location: PL=Pore Lining,	M=Matrix.
		to disease for Brokley of	. 11
Hydric Soil Indicators:		Indicators for Problematic	: Hydric Soils":
Histosol (A1)	Polyvalue Below Surface (S8) (LRR S, T,	J) 1 cm Muck (A9) (LRR	0)
Histic Epipedon (A2)	Thin Dark Surface (S9) (LRR S, T, U)	2 cm Muck (A10) (LRF	
Black Histic (A3)	Loamy Mucky Mineral (F1) (LRR O)		(outside MLRA 150A,B)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	The state of the s	Soils (F19) (LRR P, S, T)
Stratified Layers (A5)	X Depleted Matrix (F3)	Anomalous Bright Loa	my Soils (F20)
Organic Bodies (A6) (LRR P, T, U)	Redox Dark Surface (F6)	(MLRA 153B) Red Parent Material (1	(E2)
5 cm Mucky Mineral (A7) (LRR P, T, U) Muck Presence (A8) (LRR U)	Depleted Dark Surface (F7) Redox Depressions (F8)		face (TF12) (LRR T, U)
1 cm Muck (A9) (LRR P, T)	Mari (F10) (LRR U)	Other (Explain in Rem	
Depleted Below Dark Surface (A11)	Depleted Ochric (F11) (MLRA 151)		·
Thick Dark Surface (A12)	Iron-Manganese Masses (F12) (LRR O, P		
Coast Prairie Redox (A16) (MLRA 150A)	Umbric Surface (F13) (LRR P, T, U)	wetland hydrology mu	
Sandy Mucky Mineral (S1) (LRR O, S)	Delta Ochric (F17) (MLRA 151)	untess disturbed or pr	oblematic.
Sandy Gleyed Matrix (S4)	Reduced Vertic (F18) (MLRA 150A, 150B Piedmont Floodplain Soils (F19) (MLRA 1		
Sandy Redox (S5) Stripped Matrix (S6)	Anomalous Bright Loamy Soils (F20) (MLI		
Dark Surface (S7) (LRR P, S, T, U)			
Control of the Land Control of the C			
Restrictive Layer (if observed): Type:			
Depth (inches):		Hydric Soil Present? Yes	X No
- Daniel -			
Remarks:			
			+
1			

Applicant/Owner: Investigator(s): Landform (hillslope, terrace, etc.):	Chesap			Harford C		Sampling Da			\pr-18
· · · · — — — — — — — — — — — — — — — —		eake Real Estate G	roup	State:	MD	_ Sampling Po	int:	DC	P-13
Landform (hillslope, terrace, etc.):	M. Jennette			wnship, Range:			N/A		
		floodplain	Local relief (co	oncave, convex,	none):c	onvex	Slope (%):		0
Subregion (LLR or MLRA):	MLR 149A	Lat:	39.45915°	Long:	-76.29952°		Datum:		NAD83
Soil Map Unit Name:		Alluvial land	(Av)			NWI classificati	on:		I/A
Are climatic/hydrologic conditions or		•		XNo	(If no, e	xplain in Remar	ks)		
Are Vegetation, Soil	_ , or Hydrology	significantly	/ disturbed?	Are "No	rmat Circumsta	ances" present?	Yes	Х	_ No
re Vegetation, Soil	_ , or Hydrology	naturally pr	oblematic?	(if need	ed, explain any	answers in Ren	narks.)		
SUMMARY OF FINDINGS- Attac	ch site map show	ing sampling poir	nt locations, transe	cts, important	features, etc	: .			
lydrophytic Vegetation Present?	Yes	NoX							
lydric Soil Present?	Yes	NoX	Is the Sampled	Area within a W	etland?	Ye	s	No	x
Vetland Hydrology Present?		NoX			oudite.			110	
HYDROLOGY									
Wetland Hydrology Indicators:					Secondary Ind	icators (minimur	n of two requ	ired)	
Primary Indicators (minimum of one	e is required, check a	all that apply)			Surface	e Soil Cracks (B	6)		
Surface Water (A1)		Aquatic Fauna	/D12\		_				
Canado Water (711)			(613)		Sparse	ly Vegetated Co	ncave Sunac	:e (B8)	
High Water Table (A2)	_	Marl Deposits (•		ely Vegetated Co ge Patterns (B10		æ (B8)	
			B15) (LRR U)		Draina))	:e (B8)	
High Water Table (A2) Saturation (A3) Water Marks (B1)		Marl Deposits (Hydrogen Sulfid Oxidized Rhizo	B15) (LRR U) de Odor (C1) spheres on Living Roo	ots (C3)	Draina Moss T	ge Patterns (B10))	e (B8)	
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)		Marl Deposits (I Hydrogen Sulfic Oxidized Rhizo Presence of Re	B15) (LRR U) de Odor (C1) spheres on Living Roo duced Iron (C4)		Draina Moss T Dry-Se	ge Patterns (B10 rim Lines (B16)))	e (B8)	
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)		Marl Deposits (I Hydrogen Sulfic Oxidized Rhizo Presence of Re Recent Iron Re	B15) (LRR U) de Odor (C1) spheres on Living Roo duced Iron (C4) duction in Tilled Soils		Draina Moss T Dry-Se Crayfis	ge Patterns (B16 rim Lines (B16) ason Water Tab)) le (C2)		
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)		Marl Deposits (I Hydrogen Sulfic Oxidized Rhizor Presence of Re Recent Iron Rec Thin Muck Surf.	B15) (LRR U) de Odor (C1) spheres on Living Roc educed Iron (C4) duction in Tilled Soils (Draina Moss T Dry-Se Crayfis Satural	ge Patterns (B10 rim Lines (B16) ason Water Tab h Burrows (C8) tion Visible on A orphic Position (I)) le (C2) erial Imagery		
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)		Marl Deposits (I Hydrogen Sulfic Oxidized Rhizo Presence of Re Recent Iron Re	B15) (LRR U) de Odor (C1) spheres on Living Roc educed Iron (C4) duction in Tilled Soils (Drainay Moss T Dry-Se Crayfis Saturat Geomo	ge Patterns (B16) irim Lines (B16) ason Water Tab h Burrows (C8) tion Visible on A prophic Position (I w Aquitard (D3)	o) le (C2) erial Imagery O2)		
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial		Marl Deposits (I Hydrogen Sulfic Oxidized Rhizor Presence of Re Recent Iron Rec Thin Muck Surf.	B15) (LRR U) de Odor (C1) spheres on Living Roc educed Iron (C4) duction in Tilled Soils (Drainay Moss T Dry-Se Crayfis Saturat Geomo	ge Patterns (B10 rim Lines (B16) ason Water Tab h Burrows (C8) tion Visible on A prphic Position (I w Aquitard (D3) eutral Test (D5)	o) le (C2) erial Imagery O2)		
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Water Stained Leaves (B9)		Marl Deposits (I Hydrogen Sulfic Oxidized Rhizor Presence of Re Recent Iron Rec Thin Muck Surf.	B15) (LRR U) de Odor (C1) spheres on Living Roc educed Iron (C4) duction in Tilled Soils (Drainay Moss T Dry-Se Crayfis Saturat Geomo	ge Patterns (B16) irim Lines (B16) ason Water Tab h Burrows (C8) tion Visible on A prophic Position (I w Aquitard (D3)	o) le (C2) erial Imagery O2)		
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Water Stained Leaves (B9)		Marl Deposits (i Hydrogen Sulfic Oxidized Rhizo: Presence of Re Recent Iron Rec Thin Muck Surf Other (Explain i	B15) (LRR U) de Odor (C1) spheres on Living Roo educed Iron (C4) duction in Tilled Soils ace (C7) in Remarks)		Drainay Moss T Dry-Se Crayfis Saturat Geomo	ge Patterns (B10 rim Lines (B16) ason Water Tab h Burrows (C8) tion Visible on A prphic Position (I w Aquitard (D3) eutral Test (D5)	o) le (C2) erial Imagery O2)		
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Water Stained Leaves (B9)	No	Marl Deposits (i Hydrogen Sulfic Oxidized Rhizo: Presence of Re Recent Iron Re: Thin Muck Surf. Other (Explain i	B15) (LRR U) de Odor (C1) spheres on Living Roo educed Iron (C4) duction in Tilled Soils (ace (C7) in Remarks)		Drainay Moss T Dry-Se Crayfis Saturat Geomo	ge Patterns (B10 rim Lines (B16) ason Water Tab h Burrows (C8) tion Visible on A prphic Position (I w Aquitard (D3) eutral Test (D5)	o) le (C2) erial Imagery O2)		
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Water Stained Leaves (B9) Rield Observations: Surface Water Present? Ves	No X	Marl Deposits (i Hydrogen Sulfic Oxidized Rhizo: Presence of Re Recent Iron Re: Thin Muck Surf. Other (Explain i	B15) (LRR U) de Odor (C1) spheres on Living Roo duced Iron (C4) duction in Tilled Soils (ace (C7) in Remarks)	(C6)	Drainay Moss T Dry-Se Crayfis Saturat Geomo Shallov FAC-N	ge Patterns (B16) rim Lines (B16) ason Water Tab th Burrows (C8) tion Visible on A prophic Position (I w Aquitard (D3) eutral Test (D5) num moss (D*) (o) le (C2) erial Imagery O2)	(C9)	x

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Project/Site:	Abingdon Woods	City/County:	Harford County	Sampling Date:	20-Apr-18
Applicant/Owner:	Chesapeake Real Estate Gro	up	State: MD	Sampling Point:	DCP-14
Investigator(s):	M. Jennette	Section, Town	ship, Range:	N/A	
Landform (hillslope, terrace, etc.):	hillslope	Local relief (conc	ave, convex, none);	none Slope (%):	2
Subregion (LLR or MLRA):	MLR 149A Lat:	39.46248° L	ong: -76,29148°	Datum;	
Soil Map Unit Name:	Elkton silt loam	(En)		NWI classification:	PFO
Are climatic/hydrologic conditions or	the site are typical for this time of year?	Yes _	X No (If no, e	explain in Remarks)	
Are Vegetation, Soil	_ , or Hydrology significantly of	listurbed?	Are "Normal Circumsta	ances" present? Yes	X No
Are Vegetation, Soil	or Hydrology naturally prob	olematic?	(If needed, explain any	answers in Remarks.)	
	ch site map showing sampling point	locations, transects	s, important features, et	2.	
Hydrophytic Vegetation Present?	Yes <u>X</u> No				
Hydric Soil Present?	Yes X No	Is the Sampled Ar	ea within a Wetland?	Yes X	No
Wetland Hydrology Present?	Yes X No	,			
Remarks: The DCP was estal	blished within Wetland 17a.				
HYDROLOGY					
Wetland Hydrology Indicators:			Secondary Inc	licators (minimum of two requ	uired)
Primary Indicators (minimum of on	e is required, check all that apply)		Surfac	e Soil Cracks (B6)	
X Surface Water (A1)	Aquatic Fauna (E	313)	Sparse	ely Vegetated Concave Surfa	ace (B8)
X High Water Table (A2)	Marl Deposits (B	15) (LRR U)	Draina	ige Patterns (B10)	
X Saturation (A3)	Hydrogen Sulfide	Odor (C1)	Moss	Trim Lines (B16)	
Water Marks (B1)	Oxidized Rhizos	oheres on Living Roots	(C3) Dry-Se	eason Water Table (C2)	
Sediment Deposits (B2)	Presence of Red	uced Iron (C4)	Crayfi	sh Burrows (C8)	
Drift Deposits (B3)	Recent Iron Red	uction in Tilled Soils (Co	S) Satura	tion Visible on Aerial Imager	y (C9)
Algal Mat or Crust (B4)	Thin Muck Surface	ce (C7)	Geom	orphic Position (D2)	
Iron Deposits (B5)	Other (Explain in	Remarks)	Shallo	w Aquitard (D3)	
Inundation Visible on Aerial	Imagery (B7)		FAC-N	leutral Test (D5)	
X Water Stained Leaves (B9)			Sphag	num moss (D*) (LRR T, U)	
Field Observations:					
Surface Water Present? Yes	X No Depth (inche	s): 1			
Water Table Present? Yes		-			
Saturation Present? Yes	X No Depth (inche	es): 0	Wetland Hydrology Pr	resent? Yes X	No
(includes capillary fringe)					
Describe Recorded Data (stream ga	age, monitoring well, aerial photos, previou	s inspections), if availa	ble:		
Remarks:					

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Tenn Chrotum	(Plot sine, 20) Deding	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum	(Plot size: 30' Radius) <u>% Cover</u>	Species?	Status	Number of Dominant Species That Are	
1. Acer rubrum			Y	FAC	OBL, FACW, or FAC:	2 (A)
2. Quercus alba		10	N	FACU	Tatal March and Constitution	
3.					Total Number of Dominant Species Across All Strata:	3 (B)
					Percent of Dominant Species That Are	
	· · · · ——				OBL, FACW, or FAC:	(A/B)
7					Prevalence Index worksheet:	
		80	= Total Cover		Total % Cover of:	Multiply by:
	50% of total cover: 40	20%	of total cover:	16	OBL species x 1 =	
Sapling / Shrub Stratum	(Plot size: 30' Radius	_)			FACW species x 2 =	
1. Itea virginica		25	Y	FACW	FAC species x 3 =	1
2. Kalmia latifolia		5		FACU	FACU species x 4 =	
3.					UPL species x 5 =	
					Column Totals: (A)	
					Cotamin rotals (//	(5)
					Prevelence Index - R/A -	
					Prevalence Index = B/A =	
					 	· · · · · · · · · · · · · · · · · · ·
				$\overline{}$	Hydrophytic Vegetation Indicators:	
9					1 - Rapid Test for Hydrop	nytic Vegetation
		30	≃ Total Cover		X 2 - Dominance Test is >5	3%
	50% of total cover: 15	20%	of total cover:	6	3 - Prevalence Index is ≤3	3.01
					4 - Morphological Adaptat	ions ¹ (Provide
Herb Stratum	(Plot size: 30' Radius)			supporting data in Remark	ks or on a separate sheet)
1. Lycopodium digitatum	-		Y	UPL	Problematic Hydrophytic \	√egetation¹ (Explain)
					1 Indicators of hydric soil and wetland hydro	· ' '
					be present, unless disturbed or problemation	
					Definitions of Vegetation Strata:	,
					Definitions of Vegetation Strata:	
5					 	
					Tree - Woody plants, excluding woody vine	
					approximately 20 ft (6 m) or more in height	and 3 in.
8					(7.6 cm) or larger in diameter at breast hei	ght (DBH).
9						
10					Sapling/Shrub - Woody plants, excluding	woody vines,
					a less than 3in. DBH and greater than or e	qual to 3.28 ft (1 m) tall.
12						
-		5	= Total Cover		Herb - All herbaceous (non-woody) plants,	regardless
	50% of total cover: 2.5	20%	of total cover:	1	of size, and woody plants less than 3.28 ft.	_
Woody Vine Stratum	(Plot size: 30' Radius	_,			, panie 3,20 iii	·
Stratum not present	(Flot bizo.	- ′			Woody vine - All woody vines, greater that	n 3 29 ft in height
					1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 3.20 it. iii neigiit.
2						
3	112121					
4				——		
5						
		0	= Total Cover			
	50% of total cover: 0	20%	6 of total cover:	0		
					Hydrophytic	
					Vegetation	
					Present? Yes X	No
				l		
Remarks: (Include photo n	umbers here or on a separate st	neet).				l

Profile Descript	tion: (Describe to the o	lepth needed	to document the in	dicator or o	confirm the at	sence of i	ndicators.)		
Depth	Matrix		1	Redox Featu	ures				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remark	(S
0-12	10YR 4/1	90	7.5YR 6/8	<u>10</u> 40		PL_	SICL		
12-20	10YR 6/1	60	10YR 6/8	40		M	SiCL		
				-					
¹Type: C=conce	entration, D=Depletion, F		Matrix CS=Covered	or Coated S	Sand Grains		² Location: PI =	Pore Lining, M=Matrix	
1,700. 0 001.00		1177 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	main, oo oo oo	0. 000.00	Juliu Graffic.			Total Elitting, IVI Water	
Hydric Soil Indi Histosol (A			Polyvalue Belov	v Surface (S	:8\ / DD	IIN		Problematic Hydric S k (A9) (LRR O)	soils*:
Histic Epipe	The second secon		Thin Dark Surfa			0,	_	k (A10) (LRR S)	
Black Histic		•	Loamy Mucky M					Vertic (F18) (outside I	MLRA 150A,B)
	Sulfide (A4)		Loamy Gleyed I					Floodplain Soils (F19)	
Stratified L			X Depleted Matrix	• •				is Bright Loamy Soils (F20)
	odies (A6) (LRR P, T, U) sy Mineral (A7) (LRR P,		Redox Dark Sur Depleted Dark S				(MLRA 15	nt Material (TF2)	
	ence (A8) (LRR U)	·, - ,	Redox Depressi	, ,				low Dark Surface (TF1	2) (LRR T, U)
1 cm Muck	(A9) (LRR P, T)		Marl (F10) (LRF	₹ U)			Other (Ex	plain in Remarks)	
	Below Dark Surface (A11		Depleted Ochric	. , .	•		3		riary .
	Surface (A12)	4504\	Iron-Manganese Umbric Surface			, T)		s of hydrophytic vegeta	
	rie Redox (A16) (MLRA cky Mineral (S1) (LRR 0		Delta Ochric (F					nydrology must be pres sturbed or problemation	
	yed Matrix (S4)	., •,	Reduced Vertic		•)	unicss u	starbed or problematic	
Sandy Red			Piedmont Flood	lplain Soils (F19) (MLRA 1	49A)			
Stripped M			Anomalous Brig	tht Loamy S	oils (F20) (ML I	RA 149A, 1	53C, 153D)		
Dark Surra	ice (S7) (LRR P, S, T, U)]
1	er (if observed):								
Type: Depth (incl	hes)					Hydric So	il Present?	Yes X	No
Deptit (inter						i iyano oo		765 <u>X</u>	
Demodes									
Remarks:									
									17.
									l
1									

Project/Site:	Abingdon Woods	_ City/County: Ha	arford County	Sampling Date:	20-Apr-18
Applicant/Owner:	Chesapeake Real Estate Gr	oup	State: MD	Sampling Point:	DCP-15
Investigator(s):	M. Jennette	Section, Township,	Range:	N/A	
Landform (hillslope, terrace, etc.):	hillslope	_ Local relief (concave, o	convex, none):no	ne Slope (%):	3
Subregion (LLR or MLRA):	MLR 149A Lat:	39.46255° Long:	-76.29195°	Datum:	NAD83
Soil Map Unit Name:	Loamy and clayey land, 5-1			IWI classification:	N/A
	the site are typical for this time of year?	Yes X	,	olain in Remarks)	
Are Vegetation, Soil			Are "Normal Circumstan	· ·	No
Are Vegetation, Soil	, or Hydrology naturally pro	blematic?	(If needed, explain any a	nswers in Remarks.)	
SUMMARY OF FINDINGS- Attac	ch site map showing sampling poin	t locations, transects, imp	portant features, etc.		
Hydrophytic Vegetation Present?	Yes No				
Hydric Soil Present?	Yes No	Is the Sampled Area wit	thin a Wetland?	Yes	No <u>X</u>
Wetland Hydrology Present?	Yes No				
Remarks: The DCP was estat	olished on a wooded hillslope west of We	tland 17a.			
HYDROLOGY					
Wetland Hydrology Indicators:			Secondary Indic	ators (minimum of two requ	ired)
Primary Indicators (minimum of one	e is required, check all that apply)		Surface	Soil Cracks (B6)	
Surface Water (A1)	Aquatic Fauna (B13)	Sparsely	Vegetated Concave Surface	ce (B8)
High Water Table (A2)	Marl Deposits (E	315) (LRR U)	Drainage	Patterns (B10)	
Saturation (A3)	Hydrogen Sulfid	e Odor (C1)	Moss Tri	m Lines (B16)	
Water Marks (B1)	Oxidized Rhizos	pheres on Living Roots (C3)	Dry-Seas	son Water Table (C2)	
Sediment Deposits (B2)	Presence of Rec	duced Iron (C4)	Crayfish	Burrows (C8)	
Drift Deposits (B3)	Recent Iron Red	luction in Tilled Soils (C6)	Saturation	on Visible on Aerial Imagery	(C9)
Algal Mat or Crust (B4)	Thin Muck Surfa	ice (C7)	Geomon	phic Position (D2)	
Iron Deposits (B5)	Other (Explain in	n Remarks)	Shallow .	Aquitard (D3)	
Inundation Visible on Aerial	Imagery (B7)		FAC-Net	utral Test (D5)	
Water Stained Leaves (B9)			Sphagnu	ım moss (D*) (LRR T, U)	
Field Observations:					
Surface Water Present? Yes	No _X Depth (inche	es):			
Water Table Present? Yes	No X Depth (inche	es):			
Saturation Present? Yes	No X Depth (inche	es):	Wetland Hydrology Pres	ent? Yes	No <u>X</u>
(includes capillary fringe)					
Describe Recorded Data (stream ga	ge, monitoring well, aerial photos, previou	us inspections), if available:			
Remarks:					

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Tron Stratum	(Plot cize: 30' Podius	Absolute	Dominant Specios?	Indicator	Dominance Test worksheet:	
Tree Stratum	(Plot size: 30' Radius) <u>% Cover</u>	Species?	Status	Number of Dominant Species That Are	4 (4)
1. Acer rubrum		30	<u> </u>	FAC	OBL, FACW, or FAC:	(A)
2. Quercus alba		30	<u>Y</u>	FACU	Total Number of Dominant Species	
3. Quercus montana			<u> </u>	UPL	Across All Strata	6 (B)
4,					Percent of Dominant Species That Are	
5					OBL, FACW, or FAC:	17%(A/E
6,						
7	Žu.				Prevalence Index worksheet:	
		80	= Total Cover		Total % Cover of:	Multiply by:
	50% of total cover: 40		6 of total cover:	16	OBL species x 1	
Sapling / Shrub Stratum	(Plot size: 30' Radius	_)			FACW species x 2	=
1. Kalmia latifolia		25	<u> </u>	FACU	FAC species x 3	
2. Quercus montana			N	UPL	FACU species x 4	
					UPL species x 5	
					Column Totals: (A)	(B
					Prevalence Index = B/A	=
						
					Hydrophytic Vegetation Indicators:	
9					1 - Rapid Test for Hydro	
			= Total Cover	_	2 - Dominance Test is >	
	50% of total cover:15	_ 20%	6 of total cover:	6	3 - Prevalence Index is :	
Llaub Ctentum	(Dist size) 201 Dedice	,			4 - Morphological Adapt	•
Herb Stratum	(Plot size: 30' Radius		V	LIDI	Problematic Hydrophytic	arks or on a separate she
Lycopodium digitate Vessinium angustif	• •		<u> </u>	UPL FACU	¹ Indicators of hydric soil and wetland hydric	
2. Vaccinium angustife				FACU	be present, unless disturbed or problema	The second secon
						цс,
	· ·				Definitions of Vegetation Strata:	
					Tree - Woody plants, excluding woody vi	nes
			· ——		approximately 20 ft (6 m) or more in heig	
					(7.6 cm) or larger in diameter at breast he	
					(7.0 only of larger in alamoter at broadt in	orgin (oorly).
					Sapling/Shrub - Woody plants, excluding	a woody vines.
					a less than 3in. DBH and greater than or	- 10
					1	
		90	= Total Cover		Herb - All herbaceous (non-woody) plant	s, regardless
	50% of total cover: 45		% of total cover	18	of size, and woody plants less than 3.28	_
Woody Vine Stratum	(Plot size: 30' Radius	_,				
Stratum not present	8				Woody vine - All woody vines, greater th	an 3.28 ft. in height.
2.					11	
]	
4,]	
5,] [
		0	= Total Cover]	
	50% of total cover: 0	20	% of total cover	:0] {	
					Hydrophytic	
					Vegetation	
					Present? Yes	No <u>X</u>
Domorko: (Include al-	do numboro horo es es a consesta al	hoot\				
rtemarks: (include pho	to numbers here or on a separate si	neet).				

rofile Descript	ion: (Describe to the	depth neede	d to document the in	ndicator or c	onfirm the al	bsence of	indicators.)			
Depth	Matrix			Redox Featu	ıres					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Re	emarks	
0-3	10YR 2/1	100					L		10	
3-6	10YR 4/1	100					SiL		=8	
6-20	10YR 4/4	80	10YR 4/6			M_	SiL			
vpe: C=conce	ntration, D=Depletion,	RM=Reduced	Matrix CS=Covered	or Coated S	Sand Grains	= 100	²l ocation: PI	=Pore Lining, M=M	latrix	
		, , , , , , , , , , , , , , , , , , , ,	a matting of Governo	01 000100	Taria Granio.					
ydric Soil Indi	cators:						Indicators for	Problematic Hyd	ric Soils':	
Histosol (A	1)		Polyvalue Belov	w Surface (Si	8) (LRR S, T,	U)	1 cm Mud	ck (A9) (LRR O)		
Histic Epipe			Thin Dark Surfa	ice (S9) (LRF	R S, T, U)			ck (A10) (LRR S)		
Black Histic	(A3)		Loamy Mucky N		LRR O)			, ,,	ide MLRA 150A,B	
Hydrogen S	• •		Loamy Gleyed I					, , , ,	F19) (LRR P, S, T)	
Stratified La			Depleted Matrix					us Bright Loamy S	oils (F20)	
	dies (A6) (LRR P, T, l	•	Redox Dark Sur				(MLRA 1	•		
	y Mineral (A7) (LRR P	P, T, U)	Depleted Dark S					ent Material (TF2)		
	ence (A8) (LRR U)		Redox Depress						(TF12) (LRR T, U)	
_	(A9) (LRR P, T)		Marl (F10) (LRF				Other (Explain in Remarks)			
Depleted B	elow Dark Surface (A1	11)	Depleted Ochric		•					
Thick Dark	Surface (A12)		Iron-Manganese	e Masses (F	12) (LRR O, P	P, T)	³ Indicator	s of hydrophytic ve	•	
Coast Prair	ie Redox (A16) (MLR		Umbric Surface		P, T, U)		wetland	hydrology must be	present,	
Coast Prair Sandy Muc	ie Redox (A16) (MLR/ ky Mineral (S1) (LRR		Umbric Surface Delta Ochric (F	(F13) (LRR 17) (MLRA 1	51)			hydrology must be isturbed or probler	•	
Coast Prair Sandy Muc Sandy Gley	ie Redox (A16) (MLRA ky Mineral (S1) (LRR red Matrix (S4)		Umbric Surface	(F13) (LRR 17) (MLRA 1	51)	3)			•	
Coast Prair Sandy Muc	ie Redox (A16) (MLRA ky Mineral (S1) (LRR red Matrix (S4)		Umbric Surface Delta Ochric (F* Reduced Vertic Piedmont Flood	(F13) (LRR 17) (MLRA 1 (F18) (MLRA Iplain Soils (F	51) A 150A, 150B F19) (MLRA 1	49A)	unless d		•	
Coast Prair Sandy Muc Sandy Gley Sandy Red Stripped Ma	ie Redox (A16) (MLR/ ky Mineral (S1) (LRR red Matrix (S4) ox (S5) atrix (S6)	O, S)	Umbric Surface Delta Ochric (F' Reduced Vertic	(F13) (LRR 17) (MLRA 1 (F18) (MLRA Iplain Soils (F	51) A 150A, 150B F19) (MLRA 1	49A)	unless d		•	
Coast Prair Sandy Muc Sandy Gley Sandy Red Stripped Ma	ie Redox (A16) (MLR/ ky Mineral (S1) (LRR red Matrix (S4) ox (S5)	O, S)	Umbric Surface Delta Ochric (F* Reduced Vertic Piedmont Flood	(F13) (LRR 17) (MLRA 1 (F18) (MLRA Iplain Soils (F	51) A 150A, 150B F19) (MLRA 1	49A)	unless d		•	
Coast Prair Sandy Muc Sandy Gley Sandy Red Stripped Mi Dark Surfac	ie Redox (A16) (MLR/ky Mineral (S1) (LRR/red Matrix (S4) ox (S5) atrix (S6) ce (S7) (LRR P, S, T,	O, S)	Umbric Surface Delta Ochric (F* Reduced Vertic Piedmont Flood	(F13) (LRR 17) (MLRA 1 (F18) (MLRA Iplain Soils (F	51) A 150A, 150B F19) (MLRA 1	49A)	unless d		•	
Coast Prair Sandy Muc Sandy Gley Sandy Red Stripped Ma Dark Surfac	ie Redox (A16) (MLR/ ky Mineral (S1) (LRR red Matrix (S4) ox (S5) atrix (S6)	O, S)	Umbric Surface Delta Ochric (F* Reduced Vertic Piedmont Flood	(F13) (LRR 17) (MLRA 1 (F18) (MLRA Iplain Soils (F	51) A 150A, 150B F19) (MLRA 1	49A)	unless d		•	
Coast Prair Sandy Muc Sandy Gley Sandy Red Stripped Mi Dark Surfac	ie Redox (A16) (MLR/ky Mineral (S1) (LRR/red Matrix (S4) ox (S5) atrix (S6) ce (S7) (LRR P, S, T, er (if observed):	O, S)	Umbric Surface Delta Ochric (F* Reduced Vertic Piedmont Flood	(F13) (LRR 17) (MLRA 1 (F18) (MLRA Iplain Soils (F	51) A 150A, 150B F19) (MLRA 1	49A) RA 149A, 1	unless d		•	
Coast Prair Sandy Muc Sandy Gley Sandy Red Stripped Mi Dark Surfac estrictive Laye Type:	ie Redox (A16) (MLR/ky Mineral (S1) (LRR/red Matrix (S4) ox (S5) atrix (S6) ce (S7) (LRR P, S, T, er (if observed):	O, S)	Umbric Surface Delta Ochric (F* Reduced Vertic Piedmont Flood	(F13) (LRR 17) (MLRA 1 (F18) (MLRA Iplain Soils (F	51) A 150A, 150B F19) (MLRA 1	49A) RA 149A, 1	unless d	isturbed or probler	natic.	
Coast Prair Sandy Muc Sandy Gley Sandy Red Stripped Mi Dark Surfac estrictive Laye Type:	ie Redox (A16) (MLR/ky Mineral (S1) (LRR/red Matrix (S4) ox (S5) atrix (S6) ce (S7) (LRR P, S, T, er (if observed):	O, S)	Umbric Surface Delta Ochric (F* Reduced Vertic Piedmont Flood	(F13) (LRR 17) (MLRA 1 (F18) (MLRA Iplain Soils (F	51) A 150A, 150B F19) (MLRA 1	49A) RA 149A, 1	unless d	isturbed or probler	natic.	
Coast Prair Sandy Muc Sandy Gley Sandy Red Stripped Ma Dark Surfac estrictive Laye Type: Depth (inch	ie Redox (A16) (MLR/ky Mineral (S1) (LRR/red Matrix (S4) ox (S5) atrix (S6) ce (S7) (LRR P, S, T, er (if observed):	O, S)	Umbric Surface Delta Ochric (F* Reduced Vertic Piedmont Flood	(F13) (LRR 17) (MLRA 1 (F18) (MLRA Iplain Soils (F	51) A 150A, 150B F19) (MLRA 1	49A) RA 149A, 1	unless d	isturbed or probler	natic.	
Coast Prair Sandy Muc Sandy Gley Sandy Red Stripped Mi Dark Surfac estrictive Laye Type: Depth (inch	ie Redox (A16) (MLR/ky Mineral (S1) (LRR/red Matrix (S4) ox (S5) atrix (S6) ce (S7) (LRR P, S, T, er (if observed):	O, S)	Umbric Surface Delta Ochric (F* Reduced Vertic Piedmont Flood	(F13) (LRR 17) (MLRA 1 (F18) (MLRA Iplain Soils (F	51) A 150A, 150B F19) (MLRA 1	49A) RA 149A, 1	unless d	isturbed or probler	natic.	
Coast Prair Sandy Muc Sandy Gley Sandy Red Stripped Ma Dark Surfac estrictive Laye Type: Depth (inch	ie Redox (A16) (MLR/ky Mineral (S1) (LRR/red Matrix (S4) ox (S5) atrix (S6) ce (S7) (LRR P, S, T, er (if observed):	O, S)	Umbric Surface Delta Ochric (F* Reduced Vertic Piedmont Flood	(F13) (LRR 17) (MLRA 1 (F18) (MLRA Iplain Soils (F	51) A 150A, 150B F19) (MLRA 1	49A) RA 149A, 1	unless d	isturbed or probler	natic.	
Coast Prair Sandy Muc Sandy Gley Sandy Red Stripped Ma Dark Surfac estrictive Laye Type: Depth (inch	ie Redox (A16) (MLR/ky Mineral (S1) (LRR/red Matrix (S4) ox (S5) atrix (S6) ce (S7) (LRR P, S, T, er (if observed):	O, S)	Umbric Surface Delta Ochric (F* Reduced Vertic Piedmont Flood	(F13) (LRR 17) (MLRA 1 (F18) (MLRA Iplain Soils (F	51) A 150A, 150B F19) (MLRA 1	49A) RA 149A, 1	unless d	isturbed or probler	natic.	
Coast Prair Sandy Muc Sandy Gley Sandy Red Stripped Ma Dark Surfac estrictive Laye Type: Depth (inch	ie Redox (A16) (MLR/ky Mineral (S1) (LRR/red Matrix (S4) ox (S5) atrix (S6) ce (S7) (LRR P, S, T, er (if observed):	O, S)	Umbric Surface Delta Ochric (F* Reduced Vertic Piedmont Flood	(F13) (LRR 17) (MLRA 1 (F18) (MLRA Iplain Soils (F	51) A 150A, 150B F19) (MLRA 1	49A) RA 149A, 1	unless d	isturbed or probler	natic.	
Coast Prair Sandy Muc Sandy Gley Sandy Red Stripped Ma Dark Surfac estrictive Laye Type: Depth (inch	ie Redox (A16) (MLR/ky Mineral (S1) (LRR/red Matrix (S4) ox (S5) atrix (S6) ce (S7) (LRR P, S, T, er (if observed):	O, S)	Umbric Surface Delta Ochric (F* Reduced Vertic Piedmont Flood	(F13) (LRR 17) (MLRA 1 (F18) (MLRA Iplain Soils (F	51) A 150A, 150B F19) (MLRA 1	49A) RA 149A, 1	unless d	isturbed or probler	natic.	
Coast Prair Sandy Muc Sandy Gley Sandy Red Stripped Ma Dark Surfac estrictive Laye Type: Depth (inch	ie Redox (A16) (MLR/ky Mineral (S1) (LRR/red Matrix (S4) ox (S5) atrix (S6) ce (S7) (LRR P, S, T, er (if observed):	O, S)	Umbric Surface Delta Ochric (F* Reduced Vertic Piedmont Flood	(F13) (LRR 17) (MLRA 1 (F18) (MLRA Iplain Soils (F	51) A 150A, 150B F19) (MLRA 1	49A) RA 149A, 1	unless d	isturbed or probler	natic.	
Coast Prair Sandy Muc Sandy Gley Sandy Red Stripped Ma Dark Surfac estrictive Laye Type: Depth (inch	ie Redox (A16) (MLR/ky Mineral (S1) (LRR/red Matrix (S4) ox (S5) atrix (S6) ce (S7) (LRR P, S, T, er (if observed):	O, S)	Umbric Surface Delta Ochric (F* Reduced Vertic Piedmont Flood	(F13) (LRR 17) (MLRA 1 (F18) (MLRA Iplain Soils (F	51) A 150A, 150B F19) (MLRA 1	49A) RA 149A, 1	unless d	isturbed or probler	natic.	
Coast Prair Sandy Muc Sandy Gley Sandy Red Stripped Ma Dark Surfac estrictive Laye Type: Depth (inch	ie Redox (A16) (MLR/ky Mineral (S1) (LRR/red Matrix (S4) ox (S5) atrix (S6) ce (S7) (LRR P, S, T, er (if observed):	O, S)	Umbric Surface Delta Ochric (F* Reduced Vertic Piedmont Flood	(F13) (LRR 17) (MLRA 1 (F18) (MLRA Iplain Soils (F	51) A 150A, 150B F19) (MLRA 1	49A) RA 149A, 1	unless d	isturbed or probler	natic.	
Coast Prair Sandy Muc Sandy Gley Sandy Red Stripped Ma Dark Surfac estrictive Laye Type: Depth (inch	ie Redox (A16) (MLR/ky Mineral (S1) (LRR/red Matrix (S4) ox (S5) atrix (S6) ce (S7) (LRR P, S, T, er (if observed):	O, S)	Umbric Surface Delta Ochric (F* Reduced Vertic Piedmont Flood	(F13) (LRR 17) (MLRA 1 (F18) (MLRA Iplain Soils (F	51) A 150A, 150B F19) (MLRA 1	49A) RA 149A, 1	unless d	isturbed or probler	natic.	
Coast Prair Sandy Muc Sandy Gley Sandy Red Stripped Ma Dark Surfac estrictive Laye Type: Depth (inch	ie Redox (A16) (MLR/ky Mineral (S1) (LRR/red Matrix (S4) ox (S5) atrix (S6) ce (S7) (LRR P, S, T, er (if observed):	O, S)	Umbric Surface Delta Ochric (F* Reduced Vertic Piedmont Flood	(F13) (LRR 17) (MLRA 1 (F18) (MLRA Iplain Soils (F	51) A 150A, 150B F19) (MLRA 1	49A) RA 149A, 1	unless d	isturbed or probler	natic.	
Coast Prair Sandy Muc Sandy Gley Sandy Red Stripped Ma Dark Surfac estrictive Laye Type: Depth (inch	ie Redox (A16) (MLR/ky Mineral (S1) (LRR/red Matrix (S4) ox (S5) atrix (S6) ce (S7) (LRR P, S, T, er (if observed):	O, S)	Umbric Surface Delta Ochric (F* Reduced Vertic Piedmont Flood	(F13) (LRR 17) (MLRA 1 (F18) (MLRA Iplain Soils (F	51) A 150A, 150B F19) (MLRA 1	49A) RA 149A, 1	unless d	isturbed or probler	natic.	

Project/Site:	Abingdon Woods	_ City/County;F	arford County Sampling Date	20-Apr-18
Applicant/Owner:	Chesapeake Real Estate Gro	oup	State: MD Sampling Point	:DCP-16
Investigator(s):	M/ Jennette	Section, Township	Range:	N/A
Landform (hillstope, terrace, etc.):	hillslope	Local relief (concave,	convex, none): concave S	lope (%): 2
Subregion (LLR or MLRA):	MLR 149A Lat	• <i>0</i>	-76.28749°	Datum: NAD83
Soil Map Unit Name:	Loamy and clayey land, 5-1	578 81	NWI classification	
1920 19	n the site are typical for this time of year?	Yes X		
Are Vegetation, Soil			Are "Normal Circumstances" present?	Yes X No
Are Vegetation Soil			(If needed, explain any answers in Remai	
				No.)
SUMMARY OF FINDINGS- Atta	ch site map showing sampling point	t locations, transects, in	portant reatures, etc.	
Hydrophytic Vegetation Present?	Yes X No			
		1. 11. 0	Maria Maria and Maria	
Hydric Soil Present?	Yes <u>X</u> No	Is the Sampled Area w	ithin a Wetland? Yes	X No
Wetland Hydrology Present?	YesX No			
Remarks: The DCP was esta	blished within Wetland 19.			
	40			
HYDROLOGY				
Wetland Hydrology Indicators:			Secondary Indicators (minimum o	of two required)
Primary Indicators (minimum of on	e is required, check all that apply)		Surface Soil Cracks (B6)	
X Surface Water (A1)	Aquatic Fauna (I	B13)	Sparsely Vegetated Cond	ave Surface (B8)
X High Water Table (A2)	Marl Deposits (B			
X Saturation (A3)	Hydrogen Sulfide		Moss Trim Lines (B16)	
Water Marks (B1)		pheres on Living Roots (C3)	(C2)	
Sediment Deposits (B2)	Presence of Rec		(02)	
Drift Deposits (B3)		luction in Tilled Soils (C6)	Crayfish Burrows (C8) Saturation Visible on Aeri	al Imageny (C9)
Algal Mat or Crust (B4)	Thin Muck Surfa	X3 X2X XX	Geomorphic Position (D2	0.000
Iron Deposits (B5)	Other (Explain in		Shallow Aquitard (D3)	,
Inundation Visible on Aerial		, itoma koj	FAC-Neutral Test (D5)	
X Water Stained Leaves (B9)			Sphagnum moss (D*) (LF	RR T. U)
		T	Opinigham moss (D) (E)	
Field Observations:				
Surface Water Present? Yes	` `	- 0		
Water Table Present? Yes			Managara H. Jankan, Bernarda	V N-
Saturation Present? Yes (includes capillary fringe)	S X No Depth (inche	es):0	Wetland Hydrology Present? Yes	X No
	age, monitoring well, aerial photos, previou	is inspections) if available		
December Newsdear Data (sucall) y	ago, monitoring wen, acriai priotos, previot	ao mapoonomaj, ii avairable,		
Remarks:				

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		Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size: 30' Radius) _	% Cover	Species?	Status		
1. Liquidambar styraciflua		60	Υ	FAC	Number of Dominant Species That Are OBL, FACW, or FAC:	6 (A)
0. 4			Y	FAC	552,17611,5177.6.	
					Total Number of Dominant Species	7 (5)
3. Quercus alba			Y	FACU	Across All Strata:	(B)
4				$\overline{}$	Percent of Dominant Species That Are	
5					OBL, FACW, or FAC:	86%(A/B)
6						
7					Prevalence Index worksheet:	-
			= Total Cover		Total % Cover of:	Multiply by:
50% of total cover: 50		20%	of total cover	20	OBL species x 1 =	
Sapling / Shrub Stratum (Plot size: 30' Radius)				FACW species x 2 =	
1. Liquidambar styraciflua		30	Υ	FAC	FAC species x 3 =	
2. Acer rubrum		20	Y	FAC	FACU species x4 =	
3. Kalmia latifolia		10	N	FACU	UPL species x 5 =	
A Manalatina annual annua		40	N	FACW	Column Totals: (A)	
				17011	Column rotals (A)	(6)
5					Drevelence Index - D/A -	
6				$\overline{}$	Prevalence Index = B/A =	
7					Lhudanahada Vanatatian tu di ataur	
8				$\overline{}$	Hydrophytic Vegetation Indicators:	h. dia 14-a-4-di-
9					1 - Rapid Test for Hydropl	
	_		= Total Cover		X 2 - Dominance Test is >50	
50% of total cover: 35		20%	of total cover:	-14	3 - Prevalence Index is ≤3	- 25
					4 - Morphological Adaptat	·
Herb Stratum (Plot size: 30' Radius)			1	** =	ks or on a separate sheet)
1. Carex sp*			Y		Problematic Hydrophytic \	/egetation¹ (Explain)
2					1 Indicators of hydric soil and wetland hydro	ology must
3					be present, unless disturbed or problematic	3.
4					Definitions of Vegetation Strata:	
5						
6					Tree - Woody plants, excluding woody vine	es,
7					approximately 20 ft (6 m) or more in height	and 3 in.
8					(7.6 cm) or larger in diameter at breast heigh	ght (DBH).
9.						
10.					Sapling/Shrub - Woody plants, excluding	woody vines,
11.					a less than 3in. DBH and greater than or ea	·
12						• • • • • • • • • • • • • • • • • • • •
		10 :	= Total Cover	\neg	Herb - All herbaceous (non-woody) plants,	regardless
50% of total cover: 5	_		of total cover	2	of size, and woody plants less than 3.28 ft.	
Woody Vine Stratum (Plot size: 30' Radius					, and need, prame toos man 5:25 m	· ·
1. Smilax rotundifolia		5	Y	FAC	Woody vine - All woody vines, greater than	n 3 28 ft. in height
2.					seed of the seed	
3				$\overline{}$		
4						
J			Total Cause			
EON attatal access	_		= Total Cover	ایا		
50% of total cover: 2.5	<u> </u>	20%	of total cover	1		
					l.,	
					Hydrophytic	
					Vegetation	
					Present? Yes X	No
Remarks: (Include photo numbers here or on a separate	sheet).			•		
* Carex species did not have any distinguishable cha						
,						
US Army Corps of Engineers					Atlantic and Gulf Coastal Plain Regio	n-Version 2.0

Profile Description: (Describe to the depth nee	ded to document the indicator or confirm the a	bsence of indicators.)	
Depth Matrix	Redox Features		
(inches) Color (moist) %	Color (moist) % Type ¹	Loc ² Texture	Remarks
0-14 10YR 2/1 100		SiL	
14-20 10YR 4/2 90	10YR 5/6 10 C	M SiL	
¹ Type: C=concentration, D=Depletion, RM=Redu	ced Matrix, CS=Covered or Coated Sand Grains.	² Location: P	L=Pore Lining, M=Matrix.
		Indianton f	Ducklemetic Hudric Caile3.
Hydric Soil Indicators:		indicators to	or Problematic Hydric Soils ³ :
Histosol (A1)	Polyvalue Below Surface (S8) (LRR S, T,	U) 1 cm M	uck (A9) (LRR O)
Histic Epipedon (A2)	Thin Dark Surface (S9) (LRR S, T, U)		uck (A10) (LRR S)
Black Histic (A3)	Loamy Mucky Mineral (F1) (LRR O)	Reduce	ed Vertic (F18) (outside MLRA 150A,B)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)		int Floodplain Soils (F19) (LRR P, S, T)
Stratified Layers (A5)	Depleted Matrix (F3)		ous Bright Loamy Soils (F20)
Organic Bodies (A6) (LRR P, T, U)	Redox Dark Surface (F6)	(MLRA	
5 cm Mucky Mineral (A7) (LRR P, T, U) Muck Presence (A8) (LRR U)	Depleted Dark Surface (F7) Redox Depressions (F8)		rent Material (TF2) nallow Dark Surface (TF12) (LRR T, U)
1 cm Muck (A9) (LRR P, T)	Mari (F10) (LRR U)		Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Ochric (F11) (MLRA 151)		
X Thick Dark Surface (A12)	Iron-Manganese Masses (F12) (LRR O, F	P, T) ³ Indicat	ors of hydrophytic vegetation and
Coast Prairie Redox (A16) (MLRA 150A)	Umbric Surface (F13) (LRR P, T, U)	wetlan	d hydrology must be present,
Sandy Mucky Mineral (S1) (LRR O, S)	Delta Ochric (F17) (MLRA 151)		disturbed or problematic.
Sandy Gleyed Matrix (S4)	Reduced Vertic (F18) (MLRA 150A, 150E	•	
Sandy Redox (S5)	Piedmont Floodplain Soils (F19) (MLRA 1		
Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U)	Anomalous Bright Loamy Soils (F20) (ML	RA 149A, 153C, 153D)	
Daik Sulface (57) (ERR P, 5, 1, 0)			
Restrictive Layer (if observed):			
Type:		Lhudain Cail Danasanto	Vac V Na
Depth (inches):		Hydric Soil Present?	Yes X No No
Remarks;			
			1
			ļ

Project/Site:	Abingdon Woods	City/County:	Harford County	Sampling Date:	20-Apr-18
Applicant/Owner:	Chesapeake Real Est	ate Group	State: MD	Sampling Point:	DCP-17
Investigator(s):	M. Jennette	Section, Towns	hip, Range:	N/A	
Landform (hillslope, terrace, etc.):	hillslope	Local relief (conca	ve, convex, none):n	one Slope (%):	5
Subregion (LLR or MLRA):	MLR 149A Lat:	39.46369° Lo	ong:76.28778°	Datum:	NAD83
Soil Map Unit Name:		nd, 5-15% slopes (LyD)		NWI classification:	N/A
Are climatic/hydrologic conditions or		year? Yes	XNo(If no, e	xplain in Remarks)	
Are Vegetation, Soil	, or Hydrologysignifi	cantly disturbed?	Are "Normal Circumsta	inces" present? Yes	X No
Are Vegetation, Soil	, or Hydrologynature	illy problematic?	(If needed, explain any	answers in Remarks.)	
SUMMARY OF FINDINGS- Attac	ch site map showing sampling	point locations, transects,	important features, etc		
Hydrophytic Vegetation Present?	Yes No _X		· · · · · · · · · · · · · · · · · · ·	19	-
Hydric Soil Present?	Yes No X	is the Sampled Are	a within a Wetland?	Yes	No X
Wetland Hydrology Present?	Yes No _X		a visini a viodana.		<u> </u>
Remarks: The DCP was estal	blished on an hillslope northwest of	Wetland 19.			
HYDROLOGY					
Wetland Hydrology Indicators:	-		Secondary Indi	cators (minimum of two requ	ired)
Primary Indicators (minimum of one	e is required, check all that apply)			Soil Cracks (B6)	
Surface Water (A1)	Aquatic Fa	auna (B13)		ly Vegetated Concave Surfac	ce (B8)
High Water Table (A2)	Marl Depo	sits (B15) (LRR U)		ge Patterns (B10)	, ,
Saturation (A3)	Hydrogen	Sulfide Odor (C1)		rim Lines (B16)	
Water Marks (B1)	Oxidized I	Rhizospheres on Living Roots (ason Water Table (C2)	
Sediment Deposits (B2)	Presence	of Reduced Iron (C4)		h Burrows (C8)	
Drift Deposits (B3)	Recent Iro	n Reduction in Tilled Soils (C6)	Saturat	ion Visible on Aerial Imagery	(C9)
Algal Mat or Crust (B4)	Thin Muck	Surface (C7)		rphic Position (D2)	(4-)
Iron Deposits (B5)		olain in Remarks)		v Aquitard (D3)	
Inundation Visible on Aerial	Imagery (B7)	•		eutral Test (D5)	
Water Stained Leaves (B9)				num moss (D*) (LRR T, U)	
Field Observations:		·		· · · · · · · · · · · · · · · · · · ·	
Surface Water Present? Yes	No X Depth	(inches):			
Water Table Present? Yes		(inches):			
Saturation Present? Yes		(inches): 15	Wetland Hydrology Pre	sent? Yes	No X
(includes capillary fringe)		` -	,		
Describe Recorded Data (stream ga	ge, monitoring well, aerial photos, p	previous inspections), if available	e:		
Remarks:					

US Army Corps of Engineers

· · · · · · · · · · · · · · · · · · ·		Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum	(Plot size: 30' Radius) % Cover	Species?	Status	
1. Quercus montana	25 45	40	Υ	FACU	Number of Dominant Species That Are OBL, FACW, or FAC:1(A)
23					
2. <u>Liquidambar styraciflu</u>	<i>a</i>		Y	FAC	Total Number of Dominant Species
Quercus alba		20	Y	FACU	Across All Strata 6 (B)
4. Linodendron tulipifera		10	N	FACU	
5					Percent of Dominant Species That Are OBL, FACW, or FAC: 17% (A/
					Burnels and Index weeks heat.
<i>I</i> +					Prevalence Index worksheet:
			= Total Cover		Total % Cover of: Multiply by:
	50% of total cover: 45	20%	of total cover:	18	OBL species x 1 =
Sapling / Shrub Stratum	(Plot size: 30' Radius)			FACW species x 2 =
1. Kalmia latifolia		15	Y	FACU	FAC species x 3 =
2. Fagus grandifolia		5	Y	FACU	FACU species x 4 =
3.					UPL species x 5 =
					Column Totals: (A)
					Prevalence Index = B/A =
					TOTALISTIC HINDA - DIFT -
					Lhuluanhutia Vagatatian Indiacta
					Hydrophytic Vegetation Indicators:
9,					1 - Rapid Test for Hydrophytic Vegetation
		20	= Total Cover		2 - Dominance Test is >50%
	50% of total cover: 10	. 20%	6 of total cover:	4	3 - Prevalence Index is ≤3.01
					4 - Morphological Adaptations (Provide
Herb Stratum	(Plot size: 30' Radius)			supporting data in Remarks or on a separate she
1. Vaccinium angustifoli	um	30	Υ	UPL	Problematic Hydrophytic Vegetation ¹ (Explain)
					1 Indicators of hydric soil and wetland hydrology must
					be present, unless disturbed or problematic.
					Definitions of Vegetation Strata:
					Definitions of Vegetation Strate.
					1
6					Tree - Woody plants, excluding woody vines,
7,					approximately 20 ft (6 m) or more in height and 3 in.
8					(7,6 cm) or larger in diameter at breast height (DBH).
]
					Sapling/Shrub - Woody plants, excluding woody vines,
	\$				a less than 3in. DBH and greater than or equal to 3,28 ft (1 m) tal
12.					
771		30	= Total Cover		Herb - All herbaceous (non-woody) plants, regardless
	50% of total cover: 15		6 of total cover	: 6	of size, and woody plants less than 3,28 ft. tall
	11 150	- 20%	o or total cover		lot size, and woody plants less than 3,20 it, tail
Woody Vine Stratum	(Plot size: 30' Radius	_)			Mandanta Allanda de Constitución de Constituci
Stratum not present					Woody vine - All woody vines, greater than 3,28 ft. in height.
2,					41
3,					41
4					<u>. </u>
5.]
		0	= Total Cover		
	50% of total cover: 0	209	% of total cover		
					Hodgenhydia
					Hydrophytic
					Vegetation
					Present? Yes NoX
Remarks: (Include photo	numbers here or on a separate she	et).			
, terriaino, (motado prioto					
1					

SOIL Profile Descrip	tion: (Describe to the	depth neede	ed to document the in	ndicator or con	firm the a	bsence of	indicators.)	Sampling Poin	t: <u>DCP-17</u>	
Depth	Matrix			Redox Feature	3		7			
(inches) 0-4 4-7 7-14	Color (moist) 10YR 2/2 10YR 5/1 10YR 5/8	100 100 100	Color (moist)	<u>%</u>	Type ¹	Loc²	Texture L SiL SiL	Re	emarks	
14-20	10YR 6/4	100					SiL			1 1
¹Type: C=conce	entration, D=Depletion,	RM=Reduce	d Matrix, CS=Covered	or Coated San	d Grains.		² Location: PL:	Pore Lining, M=N	latrix.	
Stratified L Organic Bo 5 cm Muck Muck Pres 1 cm Muck Depleted E Thick Dark Coast Prai Sandy Muc Sandy Gle Sandy Rec Stripped M	edon (A2) c (A3) Sulfide (A4) ayers (A5) odies (A6) (LRR P, T, L cy Mineral (A7) (LRR P, ence (A8) (LRR U) c (A9) (LRR P, T) Below Dark Surface (A1 Surface (A12) rie Redox (A16) (MLRA cky Mineral (S1) (LRR G yed Matrix (S4) dox (S5)	1) A 150A) O, S)	Polyvalue Below Thin Dark Surfa Loamy Mucky M Loamy Gleyed M Depleted Matrix Redox Dark Sur Depleted Dark S Redox Depressi Marl (F10) (LRF Depleted Ochric Iron-Manganese Umbric Surface Delta Ochric (F* Reduced Vertic Piedmont Flood Anomalous Brig	ce (S9) (LRR S fineral (F1) (LR Matrix (F2) (F3) fface (F6) Surface (F7) ions (F8) R U) C (F11) (MLRA Masses (F12) (F13) (LRR P, 17) (MLRA 151 (F18) (MLRA 1 plain Soils (F18)	i, T, U) R O) 151) (LRR O, F T, U)) 50A, 150B	P, T) 3) 49A)	2 cm Muc Reduced Piedmont Anomalor (MLRA 1 Red Pare Very Sha Other (Ex	ck (A9) (LRR O) ck (A10) (LRR S) Vertic (F18) (outs Floodplain Soils (us Bright Loamy S 53B) nt Material (TF2) flow Dark Surface eplain in Remarks) s of hydrophytic ve hydrology must be esturbed or probler	F19) (LRR P, oils (F20) (TF12) (LRR egetation and present,	S, T)
Restrictive Lay Type: Depth (inc	er (if observed):	-				Hydric Sc	oil Present?	Yes	_ No_	x
Remarks:										

Project/Site:	Abingdon Wood	s	City/County:	H	larford County	Sampling Date	N	1-May	-18
Applicant/Owner:	Chesa	apeake Real Estate Gro	up		State: MD	Sampling Point		DCP-	18
Investigator(s):	M. Jennette		Section, To	ownship	, Range:		I/A		
Landform (hillslope, terrace, etc.):	de	pression	Local relief (c	concave,	convex, none):c	oncave S	lope (%):		0
Subregion (LLR or MLRA):	MLR 149A	Lat:	39.45810°	_ Long	-76.28715		Datum:	1	NAD83
Soit Map Unit Name:		Alluvial land (A	\v)			NWI classification		PFC	<u> </u>
Are climatic/hydrologic conditions on	the site are typica	I for this time of year?	Yes	X	_No(If no,	explain in Remarks)			
Are Vegetation, Soil	or Hydrology	significantly of	listurbed?		Are "Normal Circums	tances" present?	Yes _	X	No
Are Vegetation, Soil	, or Hydrology	naturally prob	lematic?		(If needed, explain an	y answers in Remar	ks.)		
SUMMARY OF FINDINGS- Attac	ch site map sho	wing sampling point	locations, transe	ects, in	nportant features, et	tc.			
Hydrophytic Vegetation Present?	Yes	X No							
Hydric Soil Present?	Yes	X No	Is the Sample	d Ares u	vithin a Wetland?	Yes	x	No	
•			is the cample	u Alea v	VIGIIII a VVCualid?	163		140 _	
Wetland Hydrology Present?	Yes _	X No							
Remarks: The DCP was estab	lished within Wetl	and 11.							
HYDROLOGY									
Wetland Hydrology Indicators:					Secondary In	dicators (minimum o	of two requir	red)	
Primary Indicators (minimum of one	e is required, checl	(all that apply)			ACIO: 52	ce Soil Cracks (B6)			
X Surface Water (A1)		Aquatic Fauna (B	13)			sely Vegetated Conc	ave Surface	e (B8)	
X High Water Table (A2)	_	Marl Deposits (B	-			age Patterns (B10)		· · · · ·	
X Saturation (A3)	_	Hydrogen Sulfide				Trim Lines (B16)			
Water Marks (B1)	_	and the second s	heres on Living Ro	ots (C3)		eason Water Table	(C2)		
Sediment Deposits (B2)		Presence of Red	(A) (A)	, o to (o o ,		ish Burrows (C8)	(02)		
Drift Deposits (B3)	_		action in Tilled Soils	(C6)		ation Visible on Aeri	al Imagery ((C9)	
Algal Mat or Crust (B4)	-	Thin Muck Surface		(,		norphic Position (D2	• •	(+-)	
Iron Deposits (B5)	_	Other (Explain in	, ,			ow Aquitard (D3)	' 11		
Inundation Visible on Aerial	Imagery (B7)				FAC-	Neutral Test (D5)			
X Water Stained Leaves (B9)						gnum moss (D*) (LF	RR T, U)		
Field Observations:				1			- andka		
Surface Water Present? Yes	X No	Depth (inche	s): 3						
Water Table Present? Yes	-X No -	Depth (inche							
Saturation Present? Yes	X No -	Depth (inche		1	Wetland Hydrology P	resent? Yes	X	No	
(includes capillary fringe)					,,			_	
Describe Recorded Data (stream ga	ae. monitorina wel	l. aerial photos, previou	s inspections), if av	ailable:					
				1988					
Remarks:									

					6577			950	_

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T 011	(0)	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum	(Plot size: 30' Radius) <u>% Cover</u>	Species?	Status	Number of Dominant Species That Are	
1. Acer rubrum		50	Y	FAC	OBL, FACW, or FAC:	6(A)
2. <u>Liquidambar styraciflua</u>	<u> </u>	30	Y	FAC	Total Number of Dominant Species	
3. Fagus grandifolia		10	N	FACU	Across All Strata	7(B)
4					Description of Constitution That Are	
5					Percent of Dominant Species That Are OBL, FACW, or FAC:	86%(A/B)
7					Prevalence Index worksheet:	
		90	= Total Cover	4	Total % Cover of:	Multiply by:
	50% of total cover: 45	20%	of total cover:	18	OBL species x 1 =	
Sapling / Shrub Stratum	(Plot size: 30' Radius)			FACW species x 2 =	
1. Vaccinium corymbosun	n	15	<u> </u>	FACW	FAC species x 3 =	
2. Ilex opaca		15	<u> </u>	FAC	FACU species x 4 =	
3. Kalmia latifolia		10	<u> </u>	FACU	UPL species x 5 =	
4				360	Column Totals: (A)	(B)
5						
6	 				Prevalence Index = B/A =	
7				$\overline{}$	-	
	<u>.</u>				Hydrophytic Vegetation Indicators:	
9					1 - Rapid Test for Hydropl	nytic Vegetation
		40	= Total Cover		X 2 - Dominance Test is >50)%
	50% of total cover: 20	20%	of total cover:	8	3 - Prevalence Index is ≤3	i.0¹
					4 - Morphological Adaptat	ions ¹ (Provide
Herb Stratum	(Plot size: 30' Radius	•		5.		ks or on a separate sheet)
Symplocarpus foetidus			<u> </u>	OBL	Problematic Hydrophytic \	
2. Carex stricta			Y	OBL	1 Indicators of hydric soil and wetland hydro	ology must
3. Vaccinium corymbosum			<u> </u>	FACW	be present, unless disturbed or problemation)
4. Lycopodium digitatum			<u>N</u>	UPL	Definitions of Vegetation Strata:	
					<u>'</u>	
					Tree - Woody plants, excluding woody vine	· ·
					approximately 20 ft (6 m) or more in height	and 3 in.
					(7.6 cm) or larger in diameter at breast heigh	aht (DBH).
					Sapling/Shrub - Woody plants, excluding	
					a less than 3in. DBH and greater than or ed	ual to 3.28 ft (1 m) tall.
12.					 	
	P00/ -/1-(-)		= Total Cover	_	Herb - All herbaceous (non-woody) plants,	
Manda Mina Otastan	50% of total cover: 17.5	. 20%	of total cover:	7	of size, and woody plants less than 3.28 ft.	tall
Woody Vine Stratum	(Plot size: 30' Radius)			All control of the second of t	
Stratum not present	 				Woody vine - All woody vines, greater than	13.28 π. in neight.
2. 3.						
J						
5.						
J		0 :	- Total Cavar			
	50% of total cover: 0		= Total Cover of total cover:	o		
	50% of total cover: 0	20%	o or total cover.	\dashv		
					Lhudranhutia	
					Hydrophytic Vegetation	
						_ No
					Present? Yes X	- 10
Remarks: (Include photo no	umbers here or on a separate shee	et).				

Profile Description: (Describe to the depth needs	ed to document the indicator or confirm the	absence of indicators.)	
Depth Matrix	Redox Features		
(inches) Color (moist) %	Color (moist) % Type ¹	Loc ² Texture	Remarks
0-10 10YR 4/2 90 10-20 10YR 6/1 60	10YR 4/6 10 C 10YR 6/8 40 C	M SICL	
		21	David State M. Mark
¹ Type: C=concentration, D=Depletion, RM=Reduce	d Matrix, CS=Covered or Coated Sand Grains.	"Location: Pi	=Pore Lining, M=Matrix.
Hydric Soil Indicators:		Indicators fo	r Problematic Hydric Soils ³ :
Histosol (A1)	Polyvalue Below Surface (S8) (LRR S, T		ick (A9) (LRR O)
Histic Epipedon (A2)	Thin Dark Surface (S9) (LRR S, T, U)		uck (A10) (LRR S)
Black Histic (A3) Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1) (LRR O) Loamy Gleyed Matrix (F2)		d Vertic (F18) (outside MLRA 150A,B) nt Floodplain Soils (F19) (LRR P, S, T)
Stratified Layers (A5)	X Depleted Matrix (F3)		ous Bright Loamy Soils (F20)
Organic Bodies (A6) (LRR P, T, U)	Redox Dark Surface (F6)	(MLRA	• 1000
5 cm Mucky Mineral (A7) (LRR P, T, U) Muck Presence (A8) (LRR U)	Depleted Dark Surface (F7) Redox Depressions (F8)		rent Material (TF2) allow Dark Surface (TF12) (LRR T, U)
1 cm Muck (A9) (LRR P, T)	Marl (F10) (LRR U)		Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Ochric (F11) (MLRA 151)	-	
Thick Dark Surface (A12)	Iron-Manganese Masses (F12) (LRR O, Umbric Surface (F13) (LRR P, T, U)		ors of hydrophytic vegetation and
Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S1) (LRR 0, S)	Delta Ochric (F17) (MLRA 151)		I hydrology must be present, disturbed or problematic.
Sandy Gleyed Matrix (S4)	Reduced Vertic (F18) (MLRA 150A, 150		dictarbed of problematic.
Sandy Redox (S5)	Piedmont Floodplain Soils (F19) (MLRA		
Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U)	Anomalous Bright Loamy Soils (F20) (M	LRA 149A, 153C, 153D)	
Dark ourlace (67) (ERRY 1, 6, 1, 6)		*	
Destrictive Lover (if sheeped)			
Restrictive Layer (if observed): Type:			
Depth (inches):		Hydric Soil Present?	YesX No
Remarks:			
			Ì
			j
			1
1			

Project/Site:	Abingdon Woods	City/County: Harfo	rd County	Sampling Date:	1-May-18	
Applicant/Owner:	Chesapeake Real Estate Gr		ate: MD	Sampling Point:	DCP-19	
Investigator(s):	M. Jennette	Section, Township, Rai	nge:	N/A		
Landform (hillslope, terrace, etc.):	hillslope	Local relief (concave, con	vex, none):non	e Slope (%):	5	
Subregion (LLR or MLRA):	MLR 149A Lat:	39.45824° Long:	-76.28769°	Datum:	NAD83	
Soil Map Unit Name:	Loamy and clayey land, 15-	-30% slopes (LyE)	N'	WI classification:	N/A	
Are climatic/hydrologic conditions or	the site are typical for this time of year?	Yes X No	(If no, exp	ain in Remarks)		
Are Vegetation, Soil	, or Hydrologysignificantly	disturbed? Are	"Normal Circumstand	es" present? Yes	X No	
Are Vegetation, Soil	, or Hydrology naturally pro	oblematic? (If r	needed, explain any ar	swers in Remarks.)		
SUMMARY OF FINDINGS- Atta	ch site map showing sampling poin	nt locations, transects, impor	tant features, etc.			
Hydrophytic Vegetation Present?	YesX_ No					
Hydric Soil Present?	YesX No	Is the Sampled Area within	a Wetland?	Yes	No X	
Wetland Hydrology Present?	Yes X No	to allo Gampiou / tiba titalii.	a vvodano.		<u> </u>	
		4				
Remarks: The DCP was esta	blished on a wooded hillstope west of We	tland 11.				
HYDROLOGY						
Wetland Hydrology Indicators:			Secondary Indica	tors (minimum of two requ	ired)	
Primary Indicators (minimum of on	e is required, check all that apply)			Soil Cracks (B6)		
Surface Water (A1)	Aquatic Fauna ((B13)	Sparsely	Vegetated Concave Surface	ce (B8)	
High Water Table (A2)	Mart Deposits (B15) (LRR U)	Drainage Patterns (B10)			
Saturation (A3)	Hydrogen Sulfid	le Odor (C1)	Moss Trim Lines (B16)			
Water Marks (B1)	Oxidized Rhizos	spheres on Living Roots (C3)	Dry-Seas	on Water Table (C2)		
Sediment Deposits (B2)	Presence of Re	duced Iron (C4)	Crayfish Burrows (C8)			
Drift Deposits (B3)	Recent Iron Rec	duction in Tilled Soils (C6)	Saturation	n Visible on Aerial Imagery	(C9)	
Algal Mat or Crust (B4)	Thin Muck Surfa	ace (C7)	Geomorp	hic Position (D2)		
Iron Deposits (B5)	Other (Explain i	n Remarks)	Shallow A	(D3)		
Inundation Visible on Aerial	Imagery (B7)		FAC-Neu	tral Test (D5)		
Water Stained Leaves (B9)			Sphagnui	m moss (D*) (LRR T, U)		
Field Observations:						
Surface Water Present? Yes		es):				
Water Table Present? Yes	: `	· ———				
Saturation Present? Yes	No X Depth (inch	es): We	etland Hydrology Prese	ent? Yes	No X	
(includes capillary fringe)						
Describe Recorded Data (stream ga	age, monitoring well, aerial photos, previo	us inspections), if available:				
Remarks:						

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Ton a Chrotum	/Dist sine, 20! Dadius	Absolute	Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum	(Plot size: 30' Radius) <u>% Cover</u>	Species?	Status	Number of Dominant Species That Are		
1. Fagus grandifolia			Y	FACU	OBL, FACW, or FAC:	4	- ^(A)
2. Quercus alba	•		<u>Y</u> Y	FACU FAC	Total Number of Dominant Species		(D)
3. Liquidambar styraciflu					Across All Strata:	8	_ ^(B)
4. Acer rubrum			Y	FAC	Percent of Dominant Species That Are	50%	(A/B)
					OBL, FACW, or FAC:	3076	-(~'')
7,					Prevalence Index worksheet:		
(n)	·	100	= Total Cover		Total % Cover of:	Multiply by:	- 1
	50% of total cover; 50	5787	of total cover:	20	OBL species x 1 =		- 1
Sapling / Shrub Stratum	(Plot size: 30' Radius	528			FACW species x 2 =		- 1
1. Ilex opaca			Υ	FAC	FAC species x 3 =		
2. Kalmia latifolia			Y		FACU species x 4 =		_
				.,,,,,,	UPL species x 5 =		
					Column Totals: (A)		- 1
					Column rotals.		- (0)
	· · · · · · · · · · · · · · · · · · ·				Prevalence Index = B/A =		
					Trevalence index - B/A -		-
					Hydrophytic Vegetation Indicators:		$\neg \neg$
					1 - Rapid Test for Hydroph	ndia Vanatatian	
5		40	= Total Cover		2 - Dominance Test is >50		
	50% of total cover				3 - Prevalence Index is ≤3		
	50% of total cover: 20	- 20%	of total cover:	8			-
Llash Chesture	(Diet eine 20) Dedive	,			4 - Morphological Adaptati		
Herb Stratum	(Plot size: 30' Radius	.)	v	54011	supporting data in Remark	- EK *	1
1. Kalmia latifolia			Y	FACU	Problematic Hydrophytic \		n)
			Y	FAC	Indicators of hydric soil and wetland hydro		
					be present, unless disturbed or problemation	<u>).</u>	
					Definitions of Vegetation Strata:		- 1
							- 1
					Tree - Woody plants, excluding woody vine	is,	l
					approximately 20 ft (6 m) or more in height	and 3 in.	- 1
8					(7.6 cm) or larger in diameter at breast heigh	ght (DBH).	- 1
							
10.					Sapling/Shrub - Woody plants, excluding	woody vines,	
11.					a less than 3in, DBH and greater than or ed	qual to 3.28 ft (1 m) tall.
12		- ——					
		15	= Total Cover		Herb - All herbaceous (non-woody) plants,	regardless	
	50% of total cover: 7.5	_ 20%	6 of total cover	3	of size, and woody plants less than 3.28 ft.	tali	1
Woody Vine Stratum	(Plot size: 30' Radius	_)					
Stratum not present					Woody vine - All woody vines, greater than	n 3.28 ft. in height.	
2							İ
3.					<u> </u>		- 1
4.	·] [
5]		
		0	= Total Cover		11		
	50% of total cover: 0	_ 20%	% of total cover	:0			
					11		
					Hydrophytic		
					Vegetation		
					Present? Yes	No <u> X</u>	_ 1
Damada, (Include abote		4\			<u> </u>		=
remarks: (include photo	numbers here or on a separate she	set).					
L							

SOIL							Sampling Point	DCP-19
Profile Descript	tion: (Describe to the	depth neede	d to document the indi	cator or confirm t	he absence of	f indicators.)		
		•						
Depth (inches)	Color (moist)	%	Color (moist)	dox Features % Type	e ¹ Loc ²	_ Texture	Por	narks
0-2	10YR 2/1	100	Color (moist)		<u> </u>	L		narks
2-20	5YR 5/4	100				SiC		
								الأعلايات الوجالات
1T C	manation D-Domination	DM-Dadues	Matrix CO-Coursed or			21ti DI	Daniel Internation	4 -90
Type. C=conce	entration, D=Depletion,	RIVI=Reduced	Matrix, CS=Covered or	Coated Sand Gra	ns.	Location: PL	=Pore Lining, M=Ma	ILFIX.
Hydric Soil Indi	icators:					Indicators for	Problematic Hydr	ic Soils³:
Stratified La Organic Bo 5 cm Muck Muck Prese 1 cm Muck Depleted B Thick Dark Coast Prair Sandy Muc Sandy Gley Sandy Red Stripped M Dark Surfar	edon (A2) c (A3) Sulfide (A4) ayers (A5) dies (A6) (LRR P, T, U y Mineral (A7) (LRR P, ence (A8) (LRR U) (A9) (LRR P, T) selow Dark Surface (A1 Surface (A12) ric Redox (A16) (MLRA cky Mineral (S1) (LRR C yed Matrix (S4) ox (S5) atrix (S6) ce (S7) (LRR P, S, T, U	T, U) 1) . 150A)), S)	Polyvalue Below S Thin Dark Surface Loamy Mucky Min Loamy Gleyed Ma Depleted Matrix (F Redox Dark Surface Depleted Dark Surface Marl (F10) (LRR L Depleted Ochric (I Iron-Manganese N Umbric Surface (F Delta Ochric (F17) Reduced Vertic (F Piedmont Floodpla Anomalous Bright	(S9) (LRR S, T, U eral (F1) (LRR O) trix (F2) (3) ce (F6) face (F7) is (F8) (b) f11) (MLRA 151) fasses (F12) (LRR 13) (LRR P, T, U) (MLRA 151) 18) (MLRA 150A, ain Soils (F19) (ML	O, P, T) 150B) RA 149A)	2 cm Muc Reduced Piedmoni Anomalo (MLRA 1 Red Pare Very Sha Other (Ex	ck (A9) (LRR O) ck (A10) (LRR S) Vertic (F18) (outsit t Floodplain Soils (F use Bright Loamy So 53B) int Material (TF2) Illow Dark Surface (cplain in Remarks) is of hydrophytic ver thydrology must be p isturbed or problem	19) (LRR P, S, T) ils (F20) IF12) (LRR T, U) getation and oresent,
Restrictive Lay Type: Depth (inch	er (if observed):				Hydric S	Soil Present?	Yes	No X
L	<u> </u>							
Remarks:								

Project/Site:	Abingdon Woods		City/County:	Н	arford County		Sampling Date		1-May-18
Applicant/Owner:		peake Real Estate Gro	oup		State:	MD S	Sampling Point	:	DCP-20
Investigator(s):	M. Jennette		Section, To	vnship,	Range:			N/A	
Landform (hillslope, terrace, etc.):	toe	slope	Local relief (co	ncave,	convex, none)	: concav	<u>re</u> S	lope (%):	0
Subregion (LLR or MLRA):	MLR 149A	Lat:	39,46074°	Long:	7	6.28756°		Datum:	NAD83
Soil Map Unit Name:		Alluvial land (/	Av)			NV	I classification	:	PFO
Are climatic/hydrologic conditions on	the site are typical	for this time of year?	Yes	Х	No	(If no, expla	in in Remarks)	
Are Vegetation, Soil	, or Hydrology	significantly of	disturbed?		Are "Normal	 Circumstance	s" present?	Yes	X No
Are Vegetation, Soil		naturally proi	olematic?		(If needed, ex	plain any ans	wers in Rema	rks.)	
SUMMARY OF FINDINGS- Attac		ring sampling point	locations, transec	cts, im	portant feat	ures, etc.		·	
Hydrophytic Vegetation Present?	Yes	X No							
Hydric Soil Present?		X No	is the Sampled	Area w	ithin a Wetlan	d?	Yes	X	No
Wetland Hydrology Present?		X No							
Remarks: The DCP was estab	olished within Wetla	nd 16 and represents I	both Wetland 16 and	17.					-
		•							
HYDROLOGY							•		
Wetland Hydrology Indicators:					Seco	ndary Indicate	ors (minimum o	of two require	ed)
Primary Indicators (minimum of one	e is required, check	all that apply)				Surface So	il Cracks (B6)		
X Surface Water (A1)		Aquatic Fauna (E	313)			Sparsely V	egetated Cond	ave Surface	(B8)
X High Water Table (A2)	_	Marl Deposits (B	15) (LRR U)			Drainage F	atterns (B10)		
X Saturation (A3)	_	Hydrogen Sulfide				_	Lines (B16)		
Water Marks (B1)	_		oheres on Living Roo	ts (C3)		_	n Water Table	(C2)	
Sediment Deposits (B2)	_	Presence of Red		(+-,		_	irrows (C8)	(0-)	
Drift Deposits (B3)	_		uction in Tilled Soils	C6)			Visible on Aer	ial Imagery (C9)
Algal Mat or Crust (B4)	_	Thin Muck Surfa		,		-	ic Position (D2		••,
Iron Deposits (B5)	_	Other (Explain in	` '		-		uitard (D3)	7	
Inundation Visible on Aerial	Imagery (B7)		,			_	al Test (D5)		
X Water Stained Leaves (B9)							moss (D*) (LI	RR T, U)	
Field Observations:				Ι					
Surface Water Present? Yes	X No	Depth (inche	es): 1						
Water Table Present? Yes		Depth (inche		1					
Saturation Present? Yes		Depth (inche			Wetland Hyd	irology Preser	it? Yes	Х	No
(includes capillary fringe)						•			
Describe Recorded Data (stream ga	ge, monitoring well,	aerial photos, previou	s inspections), if avai	lable:					
Remarks:									
1/8						387	107		

US Army Corps of Engineers

T 044	(Distriction Follow) Modern	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum	(Plot size: Entire Wetland)	% Cover	Species?	Status	Number of Dominant Species That Are	
1. Acer rubrum		60	<u> </u>	FAC	OBL, FACW, or FAC:	4(A)
2. Quercus palustris			<u> </u>	FACW	Total Number of Dominant Species	
3. <u>Fagus grandifolia</u>			<u>N</u>	FACU	Across All Strata:	5 (B)
					Percent of Dominant Species That Are	80% (A/B)
					OBL, FACW, or FAC:	80%(A/B)
					Prevalence Index worksheet:	
··			= Total Cover		Total % Cover of:	Multiply by:
	50% of total cover: 45		of total cover:	18	OBL species x 1 =	
Sapling / Shrub Stratum	(Plot size: Entire Wetland)	2070	O TOTAL COVOI.		FACW species x 2 =	
Vaccinium corymbosu		30	Υ	FACW	FAC species x 3 =	
2. Kalmia latifolia			Y	$\overline{}$	FACU species x 4 =	
					UPL species x 5 =	
					Column Totals: (A)	
					(1)	(5)
					Prevalence Index = B/A =	
					Totalonio maox - Birx -	
					Hydrophytic Vegetation Indicators:	
					1 - Rapid Test for Hydropl	nytic Vegetation
		60 :	= Total Cover		X 2 - Dominance Test is >50	
	50% of total cover: 30	20%	of total cover:	12	3 - Prevalence Index is ≤3	3.01
					4 - Morphological Adaptat	ions ¹ (Provide
Herb Stratum	(Plot size: Entire Wetland)					ks or on a separate sheet)
1. Carex stricta	·	30	Υ	OBL	Problematic Hydrophytic \	. ' 1
0 14.1 1 1.00 5			N	FACU	1 Indicators of hydric soil and wetland hydro	
					be present, unless disturbed or problematic	
					Definitions of Vegetation Strata:	= 1
					Tree - Woody plants, excluding woody vine	es.
					approximately 20 ft (6 m) or more in height	1
					(7.6 cm) or larger in diameter at breast heigh	
					(v v v v v v v v v v v v v v v v v v v	, (22.1).
					Sapling/Shrub - Woody plants, excluding	woody vines
					a less than 3in. DBH and greater than or e	
	-				3	,
·-·		35	= Total Cover		Herb - All herbaceous (non-woody) plants,	regardless
	50% of total cover: 17.5		of total cover:	7	of size, and woody plants less than 3.28 ft.	
Woody Vine Stratum	(Plot size: Entire Wetland)				, , , , , , , , , , , , , , , , , , ,	
Stratum not present	,				Woody vine - All woody vines, greater than	n 3.28 ft. in height.
2.						
3.						
4.						
5.						
		0	= Total Cover			
	50% of total cover: 0		of total cover:	0		
					Hydrophytic	
					Vegetation	
					Present? Yes X	_ No
Pomorko: (Includo oboto e	numbers here or on a separate sheet					
Remarks: (include photo i	numbers here or on a separate sheet).				

Sampling Point: DCP-20

Profile Description: (Describe to the depth needed to d	document the indicator or confirm the ab	sence of indicators.)	
Depth Matrix (inches) Color (moist) % 0-20 10YR 4/1 95	Redox Features Color (moist) % Type¹ 10YR 4/6 5 C	Loc ² Texture M SiCL	Remarks
¹ Type: C=concentration, D=Depletion, RM=Reduced Mate	rix, CS=Covered or Coated Sand Grains.	² Location: PL=	Pore Lining, M=Matrix.
Hydric Soil Indicators:	, , ,	Indicators for	Problematic Hydric Soils ³ :
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) 5 cm Mucky Mineral (A7) (LRR P, T, U) Muck Presence (A8) (LRR U) 1 cm Muck (A9) (LRR P, T) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U)	Polyvalue Below Surface (S8) (LRR S, T, L) Thin Dark Surface (S9) (LRR S, T, U) Loamy Mucky Mineral (F1) (LRR O) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Marl (F10) (LRR U) Depleted Ochric (F11) (MLRA 151) Iron-Manganese Masses (F12) (LRR O, P, Umbric Surface (F13) (LRR P, T, U) Delta Ochric (F17) (MLRA 151) Reduced Vertic (F18) (MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (MLRA 14 Anomalous Bright Loamy Soils (F20) (MLRA	2 cm Muc Reduced Piedmont Anomalor (MLRA 1: Red Pare Very Sha Other (Ex T) 3Indicator wetland to unless d	ck (A9) (LRR O) ck (A10) (LRR S) Vertic (F18) (outside MLRA 150A,B) c Floodplain Soils (F19) (LRR P, S, T) cus Bright Loamy Soils (F20) 53B) cent Material (TF2) cent Material (TF2) cent Material (TF12) (LRR T, U) cent Material (TF12) cent
Restrictive Layer (if observed): Type: Depth (inches):		Hydric Soil Present?	Yes X No
Remarks:			

Project/Site:	Abingdon Woods		City/County:	Harfo	ord County	Sampl	ing Date:	1-Ma	ny-18
Applicant/Owner:	Chesapeak	e Real Estate Gro	up	s	tate: MD	Sampli	ng Point:	DCI	2-21
Investigator(s):	M. Jennette		Section, To	wnship, Ra	nge:		N/A		
Landform (hillslope, terrace, etc.):	hillslop	е	Local relief (co	ncave, con	vex, none):	none	_ Slope (%):		2
Subregion (LLR or MLRA):	MLR 149A	Lat:		Long:	-76.287	738°	_ Datum:		NAD83
Soil Map Unit Name:	Loamy and		0% slopes (LyE)			NWI class	sification:	N	/A
Are climatic/hydrologic conditions or		nis time of year?	Yes	XNo	(lf r	no, explain in R	emarks)		
Are Vegetation, Soil	_ , or Hydrology _	significantly d	isturbed?	Are	e "Normal Circu	mstances" pre:	sent? Yes	Х	No
Are Vegetation, Soil	_ , or Hydrology _	naturally prob	lematic?	(If	needed, explain	any answers i	n Remarks.)		
SUMMARY OF FINDINGS- Attac	ch site map showing	sampling point	locations, transe	cts, impo	rtant features	, etc.			
Hydrophytic Vegetation Present?	Yes	NoX					38		
Hydric Soil Present?	Yes	No X	Is the Sampled	Area withir	a Wetland?		Yes	No	x
Wetland Hydrology Present?		No X							
Remarks: The DCP was estal	blished on an wooded hi	lisiope north of We	etiand 16 and Wetla	nd 17.	·				
								200	
Wetland Hydrology Indicators:							nimum of two requ	ired)	
Primary Indicators (minimum of one	e is required, check all th					rface Soil Crac			
Surface Water (A1)		Aquatic Fauna (B	•				ed Concave Surfa	ce (B8)	
High Water Table (A2)		Marl Deposits (B1				ainage Pattern			
Saturation (A3)		Hydrogen Sulfide				oss Trim Lines	• •		
Water Marks (B1)			heres on Living Roo	ts (C3)		y-Season Wate			
Sediment Deposits (B2)		Presence of Redu		00)		ayfish Burrows		(0.0)	
Drift Deposits (B3)			ction in Tilled Soils ((06)			on Aerial Imagery	(C9)	
Algal Mat or Crust (B4) fron Deposits (B5)		Thin Muck Surfac	• •			comorphic Posi allow Aquitard	` '		
Inundation Visible on Aerial	Imagery (B7)	Otier (Explain in	remarks)			C-Neutral Test			
Water Stained Leaves (B9)							(D*) (LRR T, U)		
		<u> </u>		r			(= /(=::::::,-/		
Field Observations: Surface Water Present? Yes	No X	Depth (inches		ŀ					
Water Table Present? Yes	No X	Depth (inches	·						
Saturation Present? Yes		Depth (inches		l w	etland Hydrology	v Present?	Yes	No	x
(includes capillary fringe)			<i>-</i>	'''		,		110	
Describe Recorded Data (stream ga	ige, monitoring well, aeri	al photos, previous	inspections), if avai	lable:	· _ .	· · · · ·			
Domantos									
Remarks:									

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Tran Cirotum	(Diet size: 20 Padius	Absolute) % Cover	Dominant Secsion?	Indicator	Dominance Test worksheet:	
Tree Stratum	(Plot size: 30' Radius	-	Species?	Status	Number of Dominant Species That Are	
1. Quercus alba		60	<u> </u>	FACU	OBL, FACW, or FAC:	— ^(A)
2. Quercus rubra		30	<u> </u>	FACU	Total Number of Dominant Species	
3. Acer rubrum		5	<u>N</u>	FAC	Across All Strata: 4	(B)
4. Kalmia latifolia		5	<u>N</u>	FACU	David 40 Section 10 Section 1	
5					Percent of Dominant Species That Are OBL, FACW, or FAC: 0%	(A/B)
						_
7.					Prevalence index worksheet:	\neg
		100	= Total Cover		Total % Cover of: Multiply by:	<u> </u>
	50% of total cover: 50	20%	of total cover:	20	OBL species x 1 =	
Sapling / Shrub Stratum	(Plot size: 30' Radius	-			FACW species x 2 =	
1. Kalmia latifolia	•	60	Υ	FACU	FAC species x3 =	
2. Liquidambar styraciflu	a	10	N	FAC	FACU species x 4 =	
					UPL species x 5 =	
					Column Totals: (A)	_
						— ` ´
					Prevalence Index = B/A =	
						_
					Hydrophytic Vegetation Indicators:	
					1 - Rapid Test for Hydrophytic Vegetation	
		70	= Total Cover		2 - Dominance Test is >50%	
	50% of total cover: 35		of total cover:	14	3 - Prevalence Index is ≤3.0¹	
		- 100			4 - Morphological Adaptations ¹ (Provide	
Herb Stratum	(Plot size: 30' Radius)			supporting data in Remarks or on a separ	ate sheet)
Kalmia latifolia	•	•	Y	FACU	Problematic Hydrophytic Vegetation ¹ (Exp	- 1
W					1 Indicators of hydric soil and wetland hydrology must	
					be present, unless disturbed or problematic.	
					Definitions of Vegetation Strata:	
					Tree - Woody plants, excluding woody vines,	ĺ
					approximately 20 ft (6 m) or more in height and 3 in.	
					(7.6 cm) or larger in diameter at breast height (DBH).	1
					a less than 3in. DBH and greater than or equal to 3.28 ft (1	m \ tall
					The root was one per tank ground was or equal to 0.20 k.().	,
14.		10	= Total Cover		Herb - All herbaceous (non-woody) plants, regardless	
	50% of total cover: 5		6 of total cover:	2	of size, and woody plants less than 3,28 ft. tall	
Woody Vine Stratum	(Plot size: 30' Radius		o or total cover.		or size, and woody plants loss than 5:20 tt tail	
Stratum not present	(Flot Size. Do Hadido	-'			Woody vine - All woody vines, greater than 3.28 ft. in heig	ht
					The state of the s	",
		_			11	1
4		-			11	
5					11	
			= Total Cover		11	
	50% of total cover: 0		% of total cover	: 0		
			0. 1010.			$\neg \neg$
					Hydrophytic	
					Vegetation	l
					Present? Yes No)	,
						=
Remarks: (Include photo	numbers here or on a separate sho	eet).				

rofile Descripti	ion: (Describe to the	depth neede	d to document the in	dicator or o	confirm the a	bsence of	indicators.)			
Depth	Matrix			Redox Featu	ures					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Rer	narks	
0-5	10YR 4/3	100					SaL			
5-20	7.5YR 5/6	100					LSa			
					11					
Type: C=conce	ntration, D=Depletion,	RM=Reduced	Matrix, CS=Covered	or Coated S	Sand Grains.		² Location: PL=	Pore Lining, M=Ma	atrix.	
ydric Soil Indic	cators:						Indicators for	Problematic Hydr	ic Soils³:	
5 cm Mucky Muck Prese 1 cm Muck Depleted Be Thick Dark: Coast Prairi Sandy Mucl Sandy Gley Sandy Redd Stripped Ma Dark Surfac	idon (A2) (A3) iulfide (A4) iyers (A5) dies (A6) (LRR P, T, L i Mineral (A7) (LRR P) ince (A8) (LRR U) (A9) (LRR P, T) elow Dark Surface (A1) ie Redox (A16) (MLRI ie Redox (A16) (MLRI ie Redox (A16) (LRR ed Matrix (S4) ix (S5) ix (S6) ix (S7) (LRR P, S, T, I	11) A 150A) O, S)	Polyvalue Belov Thin Dark Surfa Loamy Mucky M Loamy Gleyed M Depleted Matrix Redox Dark Sur Depleted Dark S Redox Depressi Marl (F10) (LRF Depleted Ochric Iron-Manganese Umbric Surface Delta Ochric (F1 Reduced Vertic Piedmont Flood Anomalous Brig	ce (S9) (LRI fineral (F1) (Matrix (F2) (F3) face (F6) Surface (F7) ions (F8) R U) c (F11) (MLF e Masses (F (F13) (LRR 17) (MLRA 1 (F18) (MLRA plain Soils (I	R S, T, U) (LRR O) 12) (LRR O, I P, T, U) 151) A 150A, 150B F19) (MLRA	P, T) B) 149A)	2 cm Muc Reduced Piedmont Anomalou (MLRA 18 Red Pare Very Shal Other (Ex	k (A9) (LRR O) k (A10) (LRR S) Vertic (F18) (outsick Floodplain Soils (Figs Bright Loamy Soiss) nt Material (TF2) low Dark Surface (in plain in Remarks) s of hydrophytic verydrology must be paturbed or problem	f19) (LRR P, ils (F20) TF12) (LRR T getation and present,	S, Τ)
Type:	er (if observed):									
Depth (inch	es):					Hydric Sc	oil Present?	Yes	- ^{No} _	X
emarks:										

Project/Site:	Abingdon Woods	City/County: Ha	arford County	Sampling Date:	1-May-18
Applicant/Owner:	Chesapeake Real Estate Gro	oup	State: MD	Sampling Point:	DCP-22
Investigator(s):	M. Jennette	Section, Township,	Range:	N/A	
Landform (hillslope, terrace, etc.):	hillslope	Local relief (concave,	convex, none):nor	ne Slope (%):	5
Subregion (LLR or MLRA):	MLR 149A Lat	39,46201° Long:	-76,28399°	Datum:	NAD83
Soil Map Unit Name:	Fallsington loams, 0-2% s	slopes (FgaA)	N	WI classification;	PFO
	the site are typical for this time of year?			lain in Remarks)	
Are Vegetation, Soil		disturbed?	Are "Normal Circumstant	ces" present? Yes _	X No
Are Vegetation, Soil	naturally prot	blematic?	(If needed, explain any a	nswers in Remarks.)	
SUMMARY OF FINDINGS- Attac	ch site map showing sampling point	locations, transects, im	portant features, etc.		
Hydrophytic Vegetation Present?	Yes X No				
Hydric Soil Present?	Yes <u>X</u> No	Is the Sampled Area wi	thin a Wetland?	Yes X	No
20.		lo dio campica / iica iii	ann a vvocana,		
Wetland Hydrology Present?	Yes <u>X</u> No				
Remarks: The DCP was estab	olished within Wetland 15.				
HYDROLOGY				·	
Wetland Hydrology Indicators:			Secondary Indica	ators (minimum of two requir	ed/
Primary Indicators (minimum of one	is required check all that anniv)			Soil Cracks (B6)	<u>eu)</u>
X Surface Water (A1)	Aquatic Fauna (E	313)		Vegetated Concave Surface	(B8)
X High Water Table (A2)	Marl Deposits (B			Patterns (B10)	, (50)
X Saturation (A3)	Hydrogen Sulfide	• • •		m Lines (816)	
Water Marks (B1)		pheres on Living Roots (C3)		son Water Table (C2)	
Sediment Deposits (B2)	Presence of Red			Burrows (C8)	
Drift Deposits (B3)		uction in Tilled Soils (C6)		n Visible on Aerial Imagery (C0)
Algal Mat or Crust (B4)	Thin Muck Surface			phic Position (D2)	03)
Iron Deposits (B5)	Other (Explain in	, ,		Aquitard (D3)	
Inundation Visible on Aerial		(Nemarka)		utral Test (D5)	
X Water Stained Leaves (B9)	magery (Br)			m moss (D*) (LRR T, U)	
Field Observations:			Opinagila	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Surface Water Present? Yes	X No Depth (inche	es): 1			
Water Table Present? Yes	X No Depth (inche				
Saturation Present? Yes	X No Depth (inche	-/ I	Wetland Hydrology Pres	ent? Yes X	No
(includes capillary fringe)				, , , , , , , , , , , , , , , , , , ,	
Describe Recorded Data (stream ga	ge, monitoring well, aerial photos, previou	s inspections), if available:			
Remarks:					
Nona no.					

US Army Corps of Engineers

Tron Stratum	(Diet size: 20! Redius	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum	(Plot size: 30' Radius	_) <u>% Cover</u>	Species?	Status	Number of Dominant Species That Are	
1. <u>Ilex opaca</u>		30	Y	FAC		(A)
2. Quercus alba		20	Y	FACU	Total Number of Dominant Species	
3. Quercus bicolor		20	<u> </u>	FACW		(B)
4					166	
			***		Percent of Dominant Species That Are OBL, FACW, or FAC: 88%	(A/B)
7.					Prevalence Index worksheet:	
		70	= Total Cover		Total % Cover of: Multiply by:	
	50% of total cover: 35		of total cover:	14	OBL species x1=	
Sapling / Shrub Stratum		-	o or total covor.	- 17		
Vaccinium corymbosu			Y	FACW	FAC coording x 2 =	
Clethra alnifolia	<u>ım</u>	30	<u>'</u>	FACW	FAC species x 3 =	
				FACVV	FACU species x 4 =	
					UPL species x 5 =	
					Column Totals: (A)	(B)
				——		
					Prevalence Index = B/A =	
	Tall					_
					Hydrophytic Vegetation Indicators:	
9					1 - Rapid Test for Hydrophytic Vegetation	
		70	= Total Cover		X 2 - Dominance Test is >50%	
	50% of total cover: 35	_ 20%	of total cover:	14	3 - Prevalence Index is ≤3.0¹	
					4 - Morphological Adaptations ¹ (Provide	
Herb Stratum	(Plot size: 30' Radius	_)			supporting data in Remarks or on a separate si	neet)
1. Carex stricta		20	<u> </u>	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)	
2. Osmundastrum cinna	momeum	10	Y	FACW	¹ Indicators of hydric soil and wetland hydrology must	
3. Symplocarpus foetidu	s	10	Υ	OBL	be present, unless disturbed or problematic.	
4		_			Definitions of Vegetation Strata:	
						l
					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).	
					() only of larger in diamotor at product floright (porty).	
					Sapling/Shrub - Woody plants, excluding woody vines,	
					a less than 3in. DBH and greater than or equal to 3.28 ft (1 m) t	
					a less than 311. DBH and greater than or equal to 3.26 it (1 in) t	an.
12						
	500/ -54-4-1		= Total Cover		Herb - All herbaceous (non-woody) plants, regardless	
Martin March	50% of total cover: 20	_ 20%	of total cover:	8	of size, and woody plants less than 3.28 ft. tall	
Woody Vine Stratum	(Plot size: 30' Radius	_)				
Stratum not present					Woody vine - All woody vines, greater than 3.28 ft. in height.	
2						
3	<u></u>					
4						
5						
		0	= Total Cover	1		
	50% of total cover: 0	_ 20%	of total cover:	0		
	=	_				
					Hydrophytic	
					Vegetation	
					Present? Yes X No	
Remarks: (Include photo	numbers here or on a separate she	eet).				
						ļ

Profile Description: (Describe to the depth need	ed to document the indicator or confirm the al	bsence of indicators.)	
Depth Matrix (inches) Color (moist) % 0-10 10YR 2/1 100	Redox Features	Loc ² Texture Gr\$a	Remarks
¹ Type: C=concentration, D=Depletion, RM=Reduce	d Matrix, CS=Covered or Coated Sand Grains.	² Location; PL=	Pore Lining, M=Matrix.
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) 5 cm Mucky Mineral (A7) (LRR P, T, U) Muck Presence (A8) (LRR U) 1 cm Muck (A9) (LRR P, T) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) X Dark Surface (S7) (LRR P, S, T, U)	Polyvalue Below Surface (S8) (LRR S, T, Thin Dark Surface (S9) (LRR S, T, U) Loamy Mucky Mineral (F1) (LRR O) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Marl (F10) (LRR U) Depleted Ochric (F11) (MLRA 151) Iron-Manganese Masses (F12) (LRR O, F) Umbric Surface (F13) (LRR P, T, U) Delta Ochric (F17) (MLRA 151) Reduced Vertic (F18) (MLRA 150A, 150E Piedmont Floodplain Soils (F19) (MLRA 1	U) 1 cm Muc 2 cm Muc Reduced Piedmont Anomalou (MLRA 18 Red Pare Very Shal Other (Ex P, T) 3Indicator wetland b unless di (8)	Problematic Hydric Soils ³ : k (A9) (LRR O) k (A10) (LRR S) Vertic (F18) (outside MLRA 150A,B) Floodplain Soils (F19) (LRR P, S, T) is Bright Loamy Soils (F20) is Bright Loamy Soils (F20) is Bright Loamy Soils (F20) is Bright Loamy Soils (F20) int Material (TF2) low Dark Surface (TF12) (LRR T, U) plain in Remarks) s of hydrophytic vegetation and hydrology must be present, sturbed or problematic.
Restrictive Layer (if observed): Type: Depth (inches):		Hydric Soil Present?	Yes X No
Remarks:			

Project/Site:	Abingdon Woods	City/County:	Harford County	Sampling Date:	1-May-18
Applicant/Owner:	Chesapeake Real Estate Gro		State: MD	Sampling Point:	DCP-23
Investigator(s):	M. Jennette	Section, Townsl	_	N/A	
Landform (hillslope, terrace, etc.):	hillslope	•	ve, convex, none):	none Slope (%):	5
Subregion (LLR or MLRA):	MLR 149A Lat:		ng:76.28387		
Soil Map Unit Name:	Elsinboro loam, 5-10% slopes, mo			NWI classification:	N/A
	the site are typical for this time of year?	Yes >	(If no.	explain in Remarks)	
Are Vegetation, Soil		_	Are "Normal Circums	•	X No
Are Vegetation, Soil	, or Hydrology naturally pro			ny answers in Remarks.)	<u> </u>
	ch site map showing sampling point			•	
		<u> </u>	,		
Hydrophytic Vegetation Present?	Yes NoX_				
Hydric Soil Present?	Yes No _X_	Is the Sampled Area	a within a Wetland?	Yes	No X
Wetland Hydrology Present?	Yes No _X_				
Remarks: The DCP was estat	blished on a wooded hillslope north of We	land 15			
		auna io.			
<u> </u>	14				
HYDROLOGY					
Wetland Hydrology Indicators:		***	Secondary In	dicators (minimum of two requ	ired)
Primary Indicators (minimum of one	e is required, check all that apply)		Surfa	ice Soil Cracks (B6)	
Surface Water (A1)	Aquatic Fauna (6	313)	Spars	sely Vegetated Concave Surface	ce (B8)
High Water Table (A2)	Marl Deposits (B	15) (LRR U)	Drain	age Patterns (B10)	
Saturation (A3)	Hydrogen Sulfide	Odor (C1)	Moss	Trim Lines (B16)	
Water Marks (B1)	Oxidized Rhizos	pheres on Living Roots (C	(3) Dry-S	Season Water Table (C2)	
Sediment Deposits (B2)	Presence of Red	uced Iron (C4)	Crayf	ish Burrows (C8)	
Drift Deposits (B3)	Recent Iron Red	uction in Tilled Soils (C6)	Satur	ation Visible on Aerial Imagery	(C9)
Algal Mat or Crust (B4)	Thin Muck Surfa	ce (C7)	Geon	norphic Position (D2)	, ,
Iron Deposits (B5)	Other (Explain in	Remarks)		ow Aquitard (D3)	
Inundation Visible on Aerial	Imagery (B7)		FAC-	Neutral Test (D5)	
Water Stained Leaves (B9)			Spha	gnum moss (D*) (LRR T, U)	
Field Observations:					
Surface Water Present? Yes	No X Depth (inche	es):			
Water Table Present? Yes					
Saturation Present? Yes	No X Depth (inche	s):	Wetland Hydrology P	resent? Yes	No X
(includes capillary fringe)					
Describe Recorded Data (stream ga	ge, monitoring well, aerial photos, previou	s inspections), if available	9:		
Remarks:	·			·····	

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		Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum	(Plot size: 30' Radius) <u>% Cover</u>	Species?	Status	Number of Dominant Species That Are	
1. Fagus grandifolia		45	<u> </u>	FACU	OBL, FACW, or FAC:	(A)
2. Quercus montana		45	Y	UPL	Total Number of Dominant Species	
3.					Across All Strata:	6 (B)
					Percent of Dominant Species That Are	0% (A/B)
					OBL, FACW, or FAC:	<u> </u>
						
7					Prevalence Index worksheet:	
		90	= Total Cover		Total % Cover of:	Multiply by:
	50% of total cover: 4	5 20%	of total cover:	18	OBL species x 1 =	•
Sapling / Shrub Stratum	(Plot size: 30' Radius)			FACW species x 2 =	
1. Kalmia latifolia		30	Y	FACU	FAC species x 3 =	
2. Vaccinium angustifolio	um	25	Y	FACU	FACU species x 4 =	
3.					UPL species x 5 =	:
					Column Totals: (A)	
					Prevalence Index = B/A =	1
					7 (313)	
					Hydrophytic Vegetation Indicators:	
					11	h. dia Mandatian
9					1 - Rapid Test for Hydrop	
		100	= Total Cover		2 - Dominance Test is >5	
	50% of total cover: 27	<u>7.5</u> 20%	6 of total cover:	11	3 - Prevalence Index is ≤	
					4 - Morphological Adapta	
Herb Stratum	(Plot size: 30' Radius)			11	rks or on a separate sheet
 Vaccinium angustifoli 	um		Y	FACU	Problematic Hydrophytic	Vegetation ¹ (Explain)
2. Kalmia latifolia		5	Y	FACU	¹ Indicators of hydric soil and wetland hydr	ology must
3,					be present, unless disturbed or problemati	iC,
4.		Vi	e		Definitions of Vegetation Strata:	
					Tree - Woody plants, excluding woody vin	es,
					approximately 20 ft (6 m) or more in heigh	
					(7.6 cm) or larger in diameter at breast he	
					(is only or target in stantage at 5 of the	3 (2.2. 7.
					 Sapling/Shrub - Woody plants, excluding	woody vines
					a less than 3in. DBH and greater than or e	rqual to 5.26 it (1 iii) tail.
12			- 727-		1	
		25	= Total Cover		Herb - All herbaceous (non-woody) plants	
	50% of total cover:12	2.5 20%	% of total cover:	5	of size, and woody plants less than 3.28 ft	, tall
Woody Vine Stratum	(Plot size: 30' Radius)				
1. Stratum not present					Woody vine - All woody vines, greater that	ın 3,28 ft. in height.
2,					1	
3.] [
4.					<u> </u>	
5.]	
			= Total Cover		11	
	50% of total cover:		- % of total cover	0		
			, or total out of			
					Hydrophytic	
					Vegetation	
					11 -	No. V
					Present? Yes	NoX
Remarks: (Include photo	numbers here or on a separat	te sheet).				
		•				

SOIL								Sampling Point	DCP-23
Profile Descrip	ption: (Describe to the	e depth neede	ed to document the i	ndicator or cor	firm the al	sence of i	ndicators.)		
Depth	Matrix			Redox Feature		. 2		_	
(inches) 0-4	Color (moist) 10YR 2/1	100	Color (moist)		Type ¹	Loc²		Rer	narks
4-5	10YR 4/3	100					SiL		
5-20	10YR 5/6	100					SiL		
			- 10					= = ,,	
¹ Type: C=cond	centration, D=Depletion	, RM=Reduce	d Matrix, CS=Covered	or Coated Sar	d Grains.		² Location: PL=I	Pore Lining, M=Ma	atrix.
Hydric Soil Inc	dicators:						Indicators for F	Problematic Hydr	ic Soils³:
Black Hist Hydrogen Stratified Organic B 5 cm Muc Muck Pree 1 cm Muc Depleted Thick Darl Coast Pra Sandy Mu Sandy Gle Sandy Re Stripped M	pedon (A2) tic (A3) Sulfide (A4) Layers (A5) Bodies (A6) (LRR P, T, I sky Mineral (A7) (LRR P sence (A8) (LRR U) sk (A9) (LRR P, T) Below Dark Surface (AI k Surface (A12) sirie Redox (A16) (MLR eyed Matrix (S4)	P, T, U) 11) A 150A) O, S)	Polyvalue Belor Thin Dark Surfa Loamy Mucky M Loamy Gleyed Depleted Matrix Redox Dark Su Depleted Dark Si Redox Depress Marl (F10) (LRI Depleted Ochric Iron-Manganes Umbric Surface Delta Ochric (F Reduced Vertic Piedmont Flood Anomalous Brig	ace (S9) (LRR s dineral (F1) (LF Matrix (F2) c (F3) rface (F6) Surface (F7) cions (F8) R U) c (F11) (MLRA e Masses (F12) e (F13) (LRR P, 17) (MLRA 151 c (F18) (MLRA 251 dplain Soils (F18)	151) (LRR O, P T, U) 150A, 150B 9) (MLRA 1	, Т)) 49A)	2 cm Muck Reduced V Piedmont I Anomalous (MLRA 15: Red Paren Very Shall Other (Exp	Floodplain Soils (F Bright Loamy So 3B) t Material (TF2)	TF12) (LRR T, U) getation and present,
Restrictive Lag	yer (if observed):								
Depth (inc						Hydric So	il Present?	Yes	No X
Remarks:									
rtemarks.									
:									
I									
:									

WETLAND DETERMINATION DATA FORM-Atlantic and Gulf Coastal Plain Region

Project/Site:	Abingdon Woods	City/County:	Hartord County	Sampling Date:	1-May-18
Applicant/Owner:	Chesapeake Real Estate Gro	oup	State: MD	Sampling Point:	DCP-24
Investigator(s):	M. Jennette	Section, Township	, Range:	N/A	
Landform (hillslope, terrace, etc.):	hilislope	Local relief (concave	, convex, none):	none Slope (%):	2
Subregion (LLR or MLRA):	MLR 149A Lat	39,46329° Long	-76.2841	2° Datum:	NAD83
Soil Map Unit Name:	Beltsville silt loam, 2-5%			NWI classification:	PFO
0.00	the site are typical for this time of year?	Yes X	No (If no	, explain in Remarks)	
Are Vegetation, Soil		disturbed?	Are "Normal Circum		X No
Are Vegetation, Soil	- 0			ny answers in Remarks,)	
			. The same of the	•	
SUMMARY OF FINDINGS- Attac	ch site map showing sampling point	locations, transects, in	nportant teatures, e	AC.	
Hydrophytic Vegetation Present?	Yes X No				
Hydric Soil Present?	Yes <u>X</u> No	Is the Sampled Area v	vithin a Wetland?	Yes X	No
Wetland Hydrology Present?	Yes X No				
Pamarka: The DCB was estab	olished within Wetland 12.				
Remarks: The DCP was estab	olished within vveuand 12.				
HYDROLOGY					
Wetland Hydrology Indicators:			Secondary I	ndicators (minimum of two requ	ired)
Primary Indicators (minimum of one	is required, check all that apply)		Surfa	ace Soil Cracks (B6)	
X Surface Water (A1)	Aquatic Fauna (B	313)	Spai	rsely Vegetated Concave Surfac	e (B8)
X High Water Table (A2)	Marl Deposits (B	15) (LRR U)	15) (LRR U) Drainage Patterns (B10)		
X Saturation (A3)	Hydrogen Sulfide	e Odor (C1) Moss Trim Lines (B16)			
Water Marks (B1)	143	pheres on Living Roots (C3		Season Water Table (C2)	
Sediment Deposits (B2)	Presence of Red	49.80		fish Burrows (C8)	
Drift Deposits (B3)		uction in Tilled Soils (C6)		ration Visible on Aerial Imagery	(C9)
Algal Mat or Crust (B4)	Thin Muck Surfa			morphic Position (D2)	(/
Iron Deposits (B5)	Other (Explain in	• ,		low Aquitard (D3)	
Inundation Visible on Aerial		,		-Neutral Test (D5)	
X Water Stained Leaves (B9)	• , , ,			agnum moss (D*) (LRR T, U)	
First Observations			<u>`</u>		
Field Observations: Surface Water Present? Yes	V No Dooth (inche	es): 1			
Surface Water Present? Yes Water Table Present? Yes	X No Depth (inche				
Saturation Present? Yes	X No Depth (inche		Wetland Hydrology	Present? Yes X	No
(includes capillary fringe)	Z No Deput (mone		wedatid riydrology	rieschi! lesX	
Describe Recorded Data (stream oa	ge, monitoring well, aerial photos, previou	is inspections), if available:			
	g-,,,, p, p	,			
Remarks:					

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Tree Stratum	(Plot eize: 30' Padius	Absolute	Dominant Species?	Indicator	Dominance Test worksheet:		
-	(Plot size: 30' Radius) <u>% Cover</u>	Species?	Status	Number of Dominant Species That Are		
1. Acer rubrum		60	<u> </u>	FAC	OBL, FACW, or FAC:	5(A)
Liquidambar styraciff .	ua	40	<u> </u>	FAC	Total Number of Dominant Species Across All Strata:	5(B)
				-	Percent of Dominant Species That Are		
					OBL, FACW, or FAC	100% (A/B)
7					Prevalence Index worksheet:		
		100	= Total Cover		Total % Cover of:	Multiply by:	
	50% of total cover: 50	20%	6 of total cover:	20	OBL species x 1 =		
Sapling / Shrub Stratum	(Plot size: 30' Radius)			FACW species x 2 =		
1. Vaccinium corymbos	um	10	Y	FACW	FAC species x 3 =		
2.			-		FACU species x 4 =		
	П				UPL species x 5 =		
					Column Totals:(A)		/D\
					Column Totals (A)		(D)
6					Prevalence Index = B/A =		
				- 5	Hydrophytic Vegetation Indicators:		
9.					1 - Rapid Test for Hydroph	vtic Vegetation	
		10	= Total Cover	$\neg \neg$	X 2 - Dominance Test is >50	T. T.	
	50% of total cover: 5		6 of total cover:	2	3 - Prevalence Index is ≤3		
		207	o or total cover.		4 - Morphological Adaptati		
Horb Ctrotum	(Diet sine, 20! Bedius	,				`	
Herb Stratum	(Plot size: 30' Radius		.,		supporting data in Remark		ieet)
1. Carex stricta		10	<u> </u>	OBL	Problematic Hydrophytic V		
			Y	FACW	¹ Indicators of hydric soil and wetland hydro	logy must	
					be present, unless disturbed or problematic	**	
4	·				Definitions of Vegetation Strata:		
5							
					Tree - Woody plants, excluding woody vine	S,	
					approximately 20 ft (6 m) or more in height	and 3 in.	
					(7.6 cm) or larger in diameter at breast heig	iht (DBH).	
						•	
					Sapling/Shrub - Woody plants, excluding v	voody vines	
					a less than 3in. DBH and greater than or eq	•	all
12.					a 1990 than 50% DET and grouter than 5. 55	,ua, 10 0.20 11 (1 111) 11	an.
		20	= Total Cover		Horth All harbaccous (non woods) plants	ronardiana	
	50% of total cover: 10			_ ,	Herb - All herbaceous (non-woody) plants,		
Mandy Vine Ctesture		20%	6 of total cover:	4	of size, and woody plants less than 3.28 ft.	lali	
Woody Vine Stratum	(Plot size: 30' Radius)			 		
Stratum not present					Woody vine - All woody vines, greater than	3.28 ft. in height.	
				\longrightarrow			
4							
5							
		0	= Total Cover	l			
	50% of total cover: 0	20%	6 of total cover:	0			
				İ	Hydrophytic		
					Vegetation		
					Present? Yes X	No	
Remarks: (include photo	numbers here or on a separate shee	→				·	
					<u> </u>		

Sampling Point: DCP-24

Profile Description: (Describe to the depth n	eeded to document the in	ndicator or confirm the	absence of it	ndicators.)	
Depth Matrix		Redox Features			
(inches) Color (moist) %	Color (moist)	% Type ¹	Loc ²	Texture SiL	Remarks
0-5 10YR 2/1 100 5-20 10YR 4/1 90	10YR 4/6	10 C		Sal.	
	_				
¹ Type: C=concentration, D=Depletion, RM=Rec	duced Matrix, CS=Covered	d or Coated Sand Grains	le):	² Location: PL=Por	e Lining, M=Matrix.
Hydric Soil Indicators:				Indicators for Pro	blematic Hydric Soils³:
Histosol (A1)	Polyvalue Belo	w Surface (S8) (LRR S,	T, U)	1 cm Muck (A	(LRR O)
Histic Epipedon (A2)		ace (S9) (LRR S, T, U)	•	2 cm Muck (A	
Black Histic (A3)		Mineral (F1) (LRR O)			tic (F18) (outside MLRA 150A,B)
Hydrogen Sulfide (A4) Stratified Layers (A5)	X Depleted Matrix				odplain Soils (F19) (LRR P, S, T) bright Loamy Soils (F20)
Organic Bodies (A6) (LRR P, T, U)	Redox Dark Su			(MLRA 153B	7.5
5 cm Mucky Mineral (A7) (LRR P, T, U)	Depleted Dark	Surface (F7)		Red Parent M	Material (TF2)
Muck Presence (A8) (LRR U)	Redox Depress				Dark Surface (TF12) (LRR T, U)
1 cm Muck (A9) (LRR P, T) Depleted Below Dark Surface (A11)	Marl (F10) (LR	R U) ic (F11) (MLRA 151)		Other (Explai	n in Remarks)
Thick Dark Surface (A11)		e Masses (F12) (LRR 0	. P. T)	3Indicators of	hydrophytic vegetation and
Coast Prairie Redox (A16) (MLRA 150A)		e (F13) (LRR P, T, U)	, , , ,		rology must be present,
Sandy Mucky Mineral (S1) (LRR O, S)		17) (MLRA 151)		unless distur	rbed or problematic.
Sandy Gleyed Matrix (S4)		c (F18) (MLRA 150A, 15 dplain Soils (F19) (MLR /			
Sandy Redox (S5) Stripped Matrix (S6)		ght Loamy Soils (F20) (I	•	53C, 153D)	
Dark Surface (S7) (LRR P, S, T, U)		g, (, (.	,	,	
Restrictive Layer (if observed):					
Type:			Hudria Sa	il Present?	Yes X No
Depth (inches):			l'iyane so	iii r resenti	163
Remarks:					
					į.
					1
					10.
					1
1					

WETLAND DETERMINATION DATA FORM-Atlantic and Gulf Coastal Plain Region

Project/Site:	Abingdon Woods	City/County: Harfo	rd County Sampling Date:	1-May-18
Applicant/Owner:	Chesapeake Real Estate G	roup St	tate: MD Sampling Point:	DCP-25
Investigator(s):	M. Jennette	Section, Township, Rar	nge: N/A	
Landform (hillslope, terrace, etc.):	hillslope	Local relief (concave, con-	vex, none): none Slope (%)	1
Subregion (LLR or MLRA):	MLR 149A Lat:	39.46421° Long:	-76.28463° Datum	NAD83
Soil Map Unit Name:	Elkton silt loar		NWI classification:	PFO
, ,	the site are typical for this time of year?			
Are Vegetation, Soil			"Normal Circumstances" present? Yes	X No
Are Vegetation, Soil	-	•	needed, explain any answers in Remarks.)	
SUMMARY OF FINDINGS- Attac	ch site map showing sampling poi	nt locations, transects, impor	tant features, etc.	
Hydrophytic Vegetation Present?	YesX No			
Hydric Soil Present?	Yes X No	Is the Sampled Area within	a Wetland? Yes X	No
Wetland Hydrology Present?	Yes X No			
				
Remarks: The DCP was estab	olished within Wetland 13.			
		- · · · · · · · · · · · · · · · · · · ·		
HYDROLOGY				
Wetland Hydrology Indicators:			Secondary Indicators (minimum of two req	uired)
Primary Indicators (minimum of one	is required, check all that apply)		Surface Soil Cracks (B6)	
X Surface Water (A1)	Aquatic Fauna	(B13)	Sparsely Vegetated Concave Surfa	ace (B8)
High Water Table (A2)	Marl Deposits (B15) (LRR U)	Drainage Patterns (B10)	
Saturation (A3)	Hydrogen Sulfic	de Odor (C1)	Moss Trim Lines (B16)	
Water Marks (B1)	Oxidized Rhizo	spheres on Living Roots (C3)	Dry-Season Water Table (C2)	
Sediment Deposits (B2)	Presence of Re	duced Iron (C4)	Crayfish Burrows (C8)	
Drift Deposits (B3)	Recent Iron Re	duction in Tilled Soils (C6)	Saturation Visible on Aerial Imager	y (C9)
Algai Mat or Crust (B4)	Thin Muck Surf	ace (C7)	Geomorphic Position (D2)	
Iron Deposits (B5)	Other (Explain	in Remarks)	Shallow Aquitard (D3)	
Inundation Visible on Aerial	Imagery (B7)		FAC-Neutral Test (D5)	
X Water Stained Leaves (B9)			Sphagnum moss (D*) (LRR T, U)	
Field Observations:				
Surface Water Present? Yes	X No Depth (inch	nes):1		
Water Table Present? Yes	No X Depth (inch	nes):		
Saturation Present? Yes	No X Depth (inch	nes): We	etland Hydrology Present? Yes X	_ No
(includes capillary fringe)				
Describe Recorded Data (stream gage	ge, monitoring well, aerial photos, previo	us inspections), if available:		
Remarks:				

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Tree Stratum	(Plot size: 30' Radius	Absolute) % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
Liquidambar styraciflu	- P. S. S. S.	50	Y	FAC	Number of Dominant Species That Are	5 (A)
			<u>'</u>	FAC	OBL, FACW, or FAC:	(//
2. Acer rubrum				-FAC	Total Number of Dominant Species	e (D)
				$\overline{}$	Across All Strata:	6 (B)
					Percent of Dominant Species That Are	
5,					OBL, FACW, or FAC:	83%(A/B)
				$\overline{}$		
7					Prevalence Index worksheet:	
			= Total Cover		Total % Cover of:	Multiply by:
	50% of total cover: 50	_ 20%	6 of total cover:	20	OBL species x 1 =	
Sapling / Shrub Stratum	(Plot size: 30' Radius	_)	V	E40	FACW species x 2 =	
1. Liquidambar styraciflu	<u>la</u>		<u> </u>	FAC	FAC species x 3 =	
2. Prunus serotina		10	<u> </u>	FACU	FACU species x 4 =	
3. Vaccinium corymbosu			<u> </u>	FACW	UPL species x 5 =	
					Column Totals: (A)	(B)
					Brouglance Index - R/A -	
					Prevalence Index = B/A =	`
					Hydrophytic Vegetation Indicators:	
					1 - Rapid Test for Hydrop	hutic Vegetation
9.		40	= Total Cover		X 2 - Dominance Test is >5	11.000
	50% of total cover: 20		6 of total cover	: 8	3 - Prevalence Index is ≤	
	2070 of total 20701		or total sover		4 - Morphological Adapta	The same of the sa
Herb Stratum	(Plot size: 30' Radius)				rks or on a separate sheet)
1. Carex stricta	<u> </u>	-	ΥΥ	OBL	Problematic Hydrophytic	100
-					1 Indicators of hydric soil and wetland hydr	W 1993-11
					be present, unless disturbed or problemat	20 (2)
					Definitions of Vegetation Strata:	
				-	1	
					Tree - Woody plants, excluding woody vin	es,
					approximately 20 ft (6 m) or more in heigh	
				-	(7.6 cm) or larger in diameter at breast he	
					1	
					Sapling/Shrub - Woody plants, excluding	woody vines,
					a less than 3in, DBH and greater than or e	equal to 3.28 ft (1 m) tall.
]	
		5	= Total Cover	-	Herb - All herbaceous (non-woody) plants	, regardless
	50% of total cover: 2.5	209	% of total cover	11	of size, and woody plants less than 3.28 ft	t. tall
Woody Vine Stratum	(Plot size: 30' Radius	_)] [
1. Stratum not present					Woody vine - All woody vines, greater that	n 3.28 ft. in height.
2.		_			<u> </u>	
					<u> </u>	
					41	
5			. ——		11	
		0	_= Total Cover			
	50% of total cover: 0	_ 20	% of total cover	r: <u> </u>		
					Hydrophytic	
					Vegetation	
					Present? Yes X	No
Remarks: (Include photo	numbers here or on a separate sh	eet).				
•	•					

SOIL Sampling Point: DCP-25 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix **Redox Features** Cotor (moist) % Color (moist) (inches) Type¹ Loc2 Texture Remarks 10YR 4/1 95 0-6 7.5YR 5/8 5 М SiL 10YR 5/2 90 7.5YR 5/8 6-10 10 C M/PI SiL 10-20 10YR 6/3 80 7.5YR 5/8 20 С M/PL SiL ¹Type: 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 Soils³: 1 cm Muck (A9) (LRR O) Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) Thin Dark Surface (S9) (LRR S, T, U) Histic Epipedon (A2) 2 cm Muck (A10) (LRR S) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (outside MLRA 150A.B) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, T) Stratified Layers (A5) 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) (LRR T, U) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T) ³Indicators of hydrophytic vegetation and 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): Depth (inches): **Hydric Soil Present?** Yes X No. Remarks:

WETLAND DETERMINATION DATA FORM-Atlantic and Gulf Coastal Plain Region

Project/Site:	Abingdon Woo	ods	City/County:	Н	arford County		Sampling Date	:	1-Ma	y-18	
Applicant/Owner:	Che	sapeake Real Estate Gro	oup		State:	<u>/ID</u> S	Sampling Point	:	DCP	-26	
Investigator(s):	M. Jennette		Section,	Township,	Range:			N/A			
Landform (hillslope, terrace, etc.):		hillslope	Local relief	(concave,	convex, none):	none	s	Slope (%): _		2	
Subregion (LLR or MLRA):	MLR 149A	Lat:	39.46363°	Long:	-76.	28506°		Datum: _		NAD83	
Soil Map Unit Name:	Chilum si	It loam, 2-5% slopes, mo	derately eroded (C	ChB2)		NW	I classification	:	N/	Α	
Are climatic/hydrologic conditions or	n the site are typic	cal for this time of year?	Ye	es X	No	(If no, expla	in in Remarks))			
Are Vegetation, Soil	_ , or Hydrology	significantly	disturbed?		Are "Normal Ci	rcumstance	s" present?	Yes _	X	No	
Are Vegetation, Soil	_ , or Hydrology	naturally pro	blematic?		(If needed, exp	lain any ans	wers in Rema	rks.)			
SUMMARY OF FINDINGS- Atta	ch site map sh	owing sampling point	t locations, tran	sects, im	portant featui	res, etc.					
Hydrophytic Vegetation Present?	Yes	No X									
Hydric Soil Present?	Yes	No <u>X</u>	Is the Sampl	led Area w	thin a Wetland?	,	Yes		No	<u> </u>	
Wetland Hydrology Present?	Yes .	NoX									
Remarks: The DCP was esta	blished within a w	ooded area between We	tland 13 and 14.								\neg
HYDROLOGY											
Wetland Hydrology Indicators:					Secon	dary Indicate	ors (minimum o	of two requi	red)		
Primary Indicators (minimum of or	e is required, che	ck all that apply)				Surface So	il Cracks (B6)				- 1
Surface Water (A1)		Aquatic Fauna (B13)			Sparsely V	egetated Cond	cave Surfac	e (B8)		l
High Water Table (A2)		Marl Deposits (B	115) (LRR U)			Drainage P	atterns (B10)				
Saturation (A3)		Hydrogen Sulfide	e Odor (C1)			Moss Trim	Lines (B16)				
Water Marks (B1)		Oxidized Rhizos	pheres on Living Roots (C3) Dry-Season Water Table (C2)								
Sediment Deposits (B2)		Presence of Rec	duced Iron (C4)			Crayfish Bu	urrows (C8)				
Drift Deposits (B3)		Recent Iron Red	uction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)								
Algal Mat or Crust (B4)		Thin Muck Surfa	ace (C7) Geomorphic Position (D2)								
Iron Deposits (B5)		Other (Explain in	n Remarks)			Shallow Ad	uitard (D3)				
Inundation Visible on Aeria	I Imagery (B7)					FAC-Neutr	al Test (D5)				
Water Stained Leaves (B9))					Sphagnum	moss (D*) (LI	RR T, U)			
Field Observations:											\dashv
Surface Water Present? Yes	No	X Depth (inch	es):								
Water Table Present? Yes	No	X Depth (inche	es):								
Saturation Present? Yes	No	X Depth (inch	es):	1	Wetland Hydro	ology Preser	nt? Yes		No	<u> </u>	
(includes capillary fringe)											
Describe Recorded Data (stream g	age, monitoring w	ell, aerial photos, previou	us inspections), if	available:							
Remarks:											

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		Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum	(Plot size: 30' Radius	% Cover	Species?	Status	Number of Dominant Species That Are	
Quercus montana		70	Y	FACU	OBL, FACW, or FAC:	(A)
2. Quercus alba		20	<u> </u>	FACU		
3.				7	Total Number of Dominant Species Across All Strata:	5 (B)
						``
				$\neg \neg$	Percent of Dominant Species That Are	00/ (4/7)
					OBL, FACW, or FAC:	(A/B)
_						
/					Prevalence Index worksheet:	1.6
			= Total Cover		Total % Cover of:	Multiply by:
	50% of total cover: 45	20%	of total cover:	18	OBL species x 1 =	
Sapling / Shrub Stratum	(Plot size: 30' Radius)			FACW species x 2 =	
1. <u>Hamamelis virginiana</u>		30	<u> </u>	FACU	FAC species x 3 =	
2. Kalmia latifolia			<u> </u>	FACU	FACU species x 4 =	
3					UPL species x 5 =	
4					Column Totals: (A)	(B)
5						
6				91	Prevalence Index = B/A =	
7						
8					Hydrophytic Vegetation Indicators:	
9					1 - Rapid Test for Hydroph	ytic Vegetation
		45	= Total Cover		2 - Dominance Test is >50	9%
	50% of total cover: 22.5	20%	of total cover:	9	3 - Prevalence Index is ≤3	.0¹
					4 - Morphological Adaptati	ons ¹ (Provide
Herb Stratum	(Plot size: 30' Radius)			supporting data in Remark	s or on a separate sheet)
Vaccinium angustifoliu	im	20	<u>Y</u>	FACU	Problematic Hydrophytic \	/egetation ¹ (Explain)
2					1 Indicators of hydric soil and wetland hydro	logy must
3					be present, unless disturbed or problematic).
4					Definitions of Vegetation Strata:	
5						
					Tree - Woody plants, excluding woody vine	s,
					approximately 20 ft (6 m) or more in height	and 3 in.
					(7.6 cm) or larger in diameter at breast heig	ght (DBH).
					Sapling/Shrub - Woody plants, excluding v	voody vines,
11					a less than 3in. DBH and greater than or ed	qual to 3.28 ft (1 m) tall.
12						
		20	= Total Cover		Herb - All herbaceous (non-woody) plants,	regardless
	50% of total cover: 10	20%	of total cover:	4	of size, and woody plants less than 3.28 ft.	tall
Woody Vine Stratum	(Plot size: 30' Radius)				
Stratum not present					Woody vine - All woody vines, greater than	3.28 ft. in height.
2						
3						
4						
5						
		0	= Total Cover			
	50% of total cover: 0	20%	of total cover:	0		
					Hydrophytic	
				ļ	Vegetation	
					Present? Yes	No <u>X</u>
Remarks: /Include photo n	numbers here or on a separate shee	* \				
Tromains, findude photo fi	amboro noro or on a separate shee	٧٠				
						į
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Profile Description: (Describe to the depth needs	ed to document the indicator or confirm t	ne absence of i	ndicators.)	
Depth Matrix	Redox Features			
(inches) Color (moist) %	Color (moist) % Type	1 Loc²	Texture	Remarks
0-5 10YR 2/2 100 5-20 10YR 5/6 100			L	
5-2010YR 5/6100			SiL	
¹ Type: C=concentration, D=Depletion, RM=Reduce	d Matrix, CS=Covered or Coated Sand Grai	ns.	² Location: PL=Por	e Lining, M=Matrix.
Hydric Soil Indicators:			Indicators for Pro	blematic Hydric Soils³:
Histosol (A1) Histic Epipedon (A2) Black Histic (A3)	Polyvalue Below Surface (S8) (LRR S Thin Dark Surface (S9) (LRR S, T, U Loamy Mucky Mineral (F1) (LRR O)		1 cm Muck (A 2 cm Muck (A	
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)			odplain Soils (F19) (LRR P, S, T)
Stratified Layers (A5)	Depleted Matrix (F3)		Anomalous B	right Loamy Soils (F20)
Organic Bodies (A6) (LRR P, T, U) 5 cm Mucky Mineral (A7) (LRR P, T, U)	Redox Dark Surface (F6)		(MLRA 153B)	V 19-10-10-10-10-10-10-10-10-10-10-10-10-10-
Muck Presence (A8) (LRR U)	Depleted Dark Surface (F7) Redox Depressions (F8)		Red Parent M Very Shallow	Dark Surface (TF12) (LRR T, U)
1 cm Muck (A9) (LRR P, T)	Marl (F10) (LRR U)			n in Remarks)
Depleted Below Dark Surface (A11)	Depleted Ochric (F11) (MLRA 151)			-
Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A)	Iron-Manganese Masses (F12) (LRR Umbric Surface (F13) (LRR P, T, U)	O, P, T)		hydrophytic vegetation and place of the present.
Sandy Mucky Mineral (S1) (LRR O, S)	Delta Ochric (F17) (MLRA 151)		•	bed or problematic.
Sandy Gleyed Matrix (S4)	Reduced Vertic (F18) (MLRA 150A,	•		
Sandy Redox (S5) Stripped Matrix (S6)	Piedmont Floodplain Soils (F19) (ML Anomalous Bright Loamy Soils (F20)		53C 453D)	
Dark Surface (S7) (LRR P, S, T, U)	Anomalous Bright Loamy Soils (F20)	(IIILINA 143A, I	330, 1330)	
Restrictive Layer (if observed):				
Type: Depth (inches):		Hydric So	il Present?	Yes NoX
Remarks				
				i
				İ
				į

WETLAND DETERMINATION DATA FORM-Atlantic and Gulf Coastal Plain Region

Project/Site:	Abingdon Woods	City/County:	Harford County	Sampling Date:	1-May-18
Applicant/Owner:	Chesapeake Real Estate	Group	_ State: MD	Sampling Point:	DCP-27
Investigator(s):	M. Jennette	Section, Township	, Range:	N/A	4
Landform (hillslope, terrace, etc.):	depression	Local relief (concave	, convex, none):cond	ave Slope (%): _	2
Subregion (LLR or MLRA):	MLR 149A Lat:	39.46323° Long	:76.28545°	Datum: _	NAD83
Soil Map Unit Name:	Elkton silt k	eam (En)	N	WI classification:	PFO
Are climatic/hydrologic conditions on		r? Yes X	(If no, exp	lain in Remarks)	
Are Vegetation, Soil		ntly disturbed?	Are "Normal Circumstan	ces" present? Yes _	X No
Are Vegetation, Soil	, or Hydrologynaturally	problematic?	(If needed, explain any a	nswers in Remarks.)	
SUMMARY OF FINDINGS- Attac	h site map showing sampling p	oint locations, transects, ir	nportant features, etc.		
Hydrophytic Vegetation Present?	Yes _ X _ No		=		
Hydric Soil Present?	Yes X No	Is the Sampled Area	vithin a Wetland?	Yes X	No
• • • • • • • • • • • • • • • • • • • •		10 110 0111 1101	Training Traderia.	·•• <u>~</u>	··· —
Wetland Hydrology Present?	Yes <u>X</u> No				
Remarks: The DCP was estable	ished within Wetland 14.				
HYDROLOGY	***			· · · · · · · · · · · · · · · · · · ·	
Wetland Hydrology Indicators:	is associated about all their south		· · · · · · · · · · · · · · · · · · ·	ators (minimum of two requi	red)
Primary Indicators (minimum of one X Surface Water (A1)		- (D40)		Soil Cracks (B6)	
	Aquatic Faur	• •		Vegetated Concave Surfac	e (B8)
High Water Table (A2)		s (B15) (LRR U)		Patterns (B10)	
X Saturation (A3)		Ifide Odor (C1)		m Lines (B16)	
Water Marks (B1)		zospheres on Living Roots (C3		on Water Table (C2)	
Sediment Deposits (B2)		Reduced Iron (C4)		Burrows (C8)	
Drift Deposits (B3)		Reduction in Tilled Soils (C6)		n Visible on Aerial Imagery	(C9)
Algal Mat or Crust (B4)	Thin Muck S	, ,		phic Position (D2)	
Iron Deposits (B5)		in in Remarks)		Aquitard (D3)	
X Inundation Visible on Aerial II Water Stained Leaves (B9)	magery (B7)			itral Test (D5)	
X vvater Stained Leaves (B9)			Spnagnu	m moss (D*) (LRR T, U)	
Field Observations:					
Surface Water Present? Yes	X No Depth (ir				
Water Table Present? Yes	X No Depth (ir	· —		**************************************	
Saturation Present? Yes (includes capillary fringe)	X No Depth (ir	ches):0	Wetland Hydrology Preso	ent? Yes X	No
Describe Recorded Data (stream gag	e, monitoring well, aerial photos, pre	vious inspections), if available:			
Remarks:					
Normal Ro.					
					п.,
		······································		·	

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Tree Stratum (Plot size: 30' Radius	Absolute) % Cover	Dominant Species?	Status	Dominance Test worksheet:
1. Liquidambar styraciflua	40	Y	FAC	Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)
	40	<u> </u>	FAC	OBL, FACW, or FAC:5 (A)
2. Acer rubrum	- ——			Total Number of Dominant Species
3. Pinus taeda	10	N	FAC	Across All Strata
4,				Percent of Dominant Species That Are
5,				OBL, FACW, or FAC:
6				
7				Prevalence Index worksheet:
		= Total Cover		Total % Cover of: Multiply by:
50% of total cover: 45	_ 20%	6 of total cover:	18	OBL species x 1 =
Sapling / Shrub Stratum (Plot size: 30' Radius	_)			FACW species x 2 =
1. Vaccinium corymbosum	25	Y	FACW	FAC species x 3 =
2. Clethra alnifolia		<u> </u>	FACW	FACU species x 4 =
3. Ilex opaca		<u>N</u>	FAC	UPL species x 5 =
4. Kalmia latifolia		N	FACU	Column Totals: (A) (B)
5.		. ——		
6,				Prevalence Index = B/A =
7,,				
8,				Hydrophytic Vegetation Indicators:
9		- Tatal O		1 - Rapid Test for Hydrophytic Vegetation
500/ -[4-1-1 00 5		= Total Cover	40	X 2 - Dominance Test is >50%
50% of total cover: 32.5	- 20%	6 of total cover:	13	3 - Prevalence Index is ≤3,0¹ 4 - Morphological Adaptations¹ (Provide
Hoth Stretum (Plot size: 30' Padius	N.			supporting data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 30' Radius		Y	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
1. Osmunda cinnamomea			PACW	1 Indicators of hydric soil and wetland hydrology must
2				be present, unless disturbed or problematic.
3.				Definitions of Vegetation Strata:
5				
6.				Tree - Woody plants, excluding woody vines,
7				approximately 20 ft (6 m) or more in height and 3 in.
8.		. ———		(7.6 cm) or larger in diameter at breast height (DBH).
9.				
10				
11.				a less than 3in. DBH and greater than or equal to 3.28 ft (1 m) tall.
12.				
	10	= Total Cover		Herb - All herbaceous (non-woody) plants, regardless
50% of total cover: 5	209	- % of total cover	2	of size, and woody plants less than 3.28 ft. tall
Woody Vine Stratum (Plot size: 30' Radius	_)			11
1. Stratum not present				Woody vine - All woody vines, greater than 3.28 ft. in height.
2				
3.] [
4	_			<u>.</u>
5				41
	0	_ = Total Cover		
50% of total cover: 0	20	% of total cover	. 0	
				Hydrophytic
				Vegetation
				Present?
Remarks: (Include photo numbers here or on a separate sh	eet).			
The state of the s	450			

SOIL

Sampling Point: DCP-27

Depth	Matrix			Redox Features			
(inches)	Color (moist)	%	Color (moist)	% Туј	pe ¹ Loc ²	Texture	Remarks
0-5	10YR 2/1	100		<u> </u>		SiL	Ttomanto
5-14	10YR 4/1	90	7.5YR 5/8	10 (SiCL	
	1011(1)1		7.0111 070	14" - Refusal - Grave		JICE	
				14 - Neiusai - Glavi	<u> </u>		
¹ Type: C=conce	ntration, D=Depletion,	RM=Reduced N	Matrix, CS=Covere	d or Coated Sand Gr	ains.	² Location: PL=F	Pore Lining, M=Matrix
							
Hydric Soil Indi				ow Surface (S8) (LRF			Problematic Hydric Soils ³ : (A9) (LRR O)
Histic Epipe	edon (A2)	_	Thin Dark Surf	face (S9) (LRR S, T,	U)	2 cm Muck	(A10) (LRR S)
Black Histic	(A3)			Mineral (F1) (LRR O			ertic (F18) (outside MLRA 150A,B)
Hydrogen S			Loamy Gleyed				Floodplain Soils (F19) (LRR P, S, T)
Stratified La		_	C Depleted Matr				
	dies (A6) (LRR P, T, U			. ,			Bright Loamy Soils (F20)
			_ Redox Dark S			(MLRA 153	*
	y Mineral (A7) (LRR P,	ı, u) _	_ Depleted Dark				t Material (TF2)
	ence (A8) (LRR U)	_	Redox Depres			Very Shallo	w Dark Surface (TF12) (LRR T, U)
	(A9) (LRR P, T)	_	Marl (F10) (LF	RU)			lain in Remarks)
Depleted Be	elow Dark Surface (A1	1)		ic (F11) (MLRA 151)			· · · · · · · · · · · · · · · · · · ·
	Surface (A12)	_		se Masses (F12) (LR	P	3Indicators	of hydrophytic vogotation and
		1504\					of hydrophytic vegetation and
	ie Redox (A16) (MLRA			e (F13) (LRR P, T, U)		drology must be present,
	ky Mineral (S1) (LRR (), S)		17) (MLRA 151)		unless dist	turbed or problematic.
	red Matrix (S4)			c (F18) (MLRA 150A			
Sandy Redo	ox (S5)		Piedmont Floo	dplain Soils (F19) (M	LRA 149A)		
Stripped Ma	atrix (S6)		Anomalous Br	ight Loamy Soils (F20) (MLRA 149A, 1	153C, 153D)	
Dark Surfac	ce (S7) (LRR P, S, T, U	<u> </u>	_	· / / / / / / / / / / / / / / / / / / /	Tier I	,,	
_	, (, , ., ., ., .,	,					
***							·
Restrictive Laye	er (if observed):		-	*			· · · · · · · · · · · · · · · · · · ·
Type:	or (in observed).						
			_				
Depth (inch	<u> </u>		_		Hydric Sc	il Present?	Yes X No
D I							
Remarks:							
							l
1							
							l

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

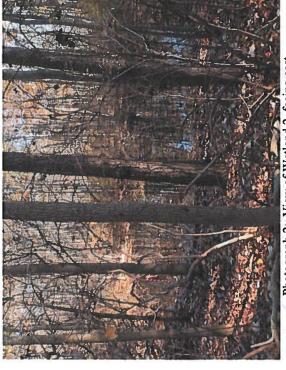
APPENDIX C PHOTOGRAPHS



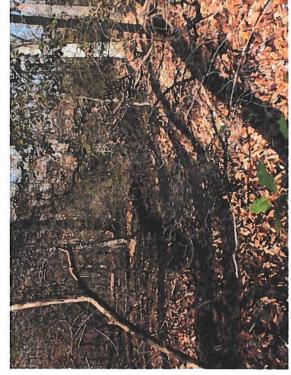
Photograph 1: View of Wetland 1, facing northwest.



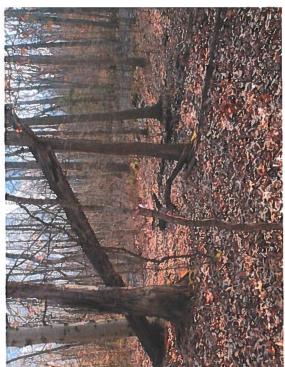
Photograph 3: View of Wetland 3, facing southeast.



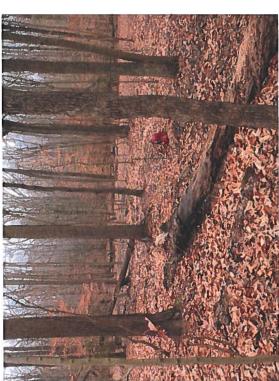
Photograph 2: View of Wetland 2, facing east.



Photograph 4: View of Wetland 4, facing northwest.



Photograph 5: View of Wetland 5, facing northwest.



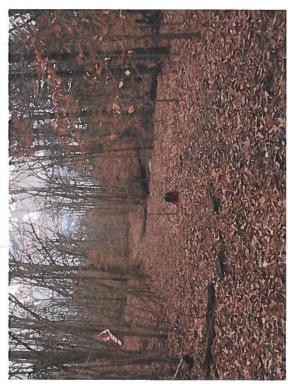
Photograph 7: View of Wetland 7, facing southwest.



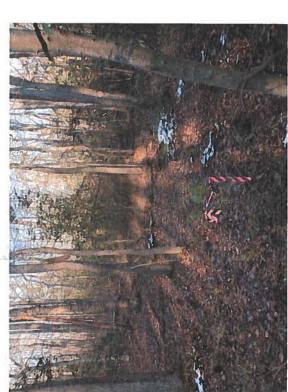
Photograph 6: View of Wetland 6, facing southeast.



Photograph 8: View of Wetland 8, facing north.



Photograph 9: View of Wetland 9, facing south.



Photograph 11: View of Wetland 11, facing east.



Photograph 10: View of Wetland 10, facing northeast.



Photograph 12: View of Wetland 12, facing west.



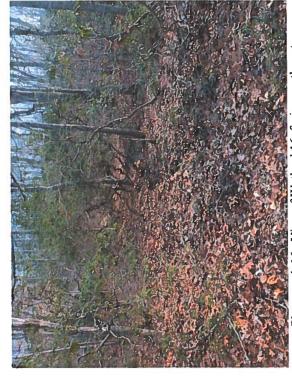
Photograph 13: View of Wetland 13, facing north.



Photograph 15: View of Wetland 15, facing west.



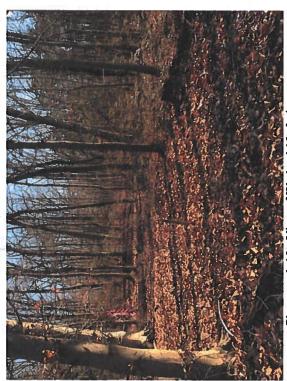
hotograph 14: View of Wetland 14, facing west.



Photograph 16: View of Wetland 16, facing southwest.



Photograph 17: View of Wetland 17, facing north.



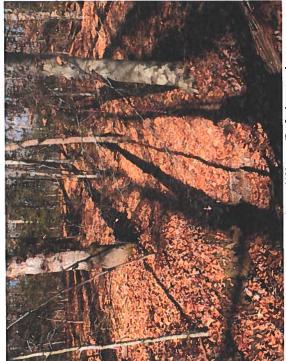
Photograph 19: View of Wetland 19, facing west.



Photograph 18: View of Wetland 18, facing northwest.



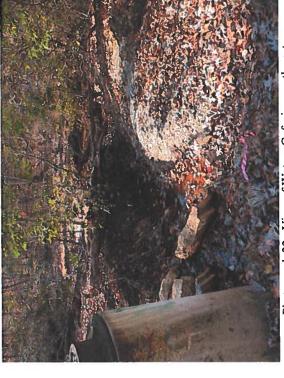
Photograph 20: View of Waters A, facing south.



Photograph 21: View of Waters B, facing north.



Photograph 23: View of Waters D, facing northeast.



Photograph 22: View of Waters C, facing southwest.



Photograph 24: View of Waters E, facing west.



Photograph 25: View of Waters F, facing north.



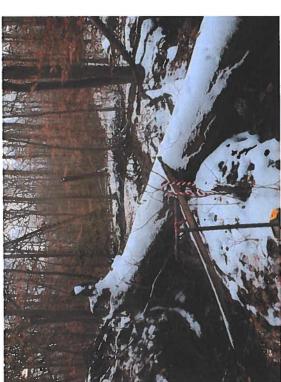
Photograph 27: View of Waters H, facing east.



Photograph 26: View of Waters G, facing north.



Photograph 28: View of Waters I, facing north.



Photograph 29: View of Waters J, facing north.



Photograph 31: View of Waters L, facing north.



Photograph 30: View of Waters K, facing east.



Photograph 32: View of Waters M, facing east.



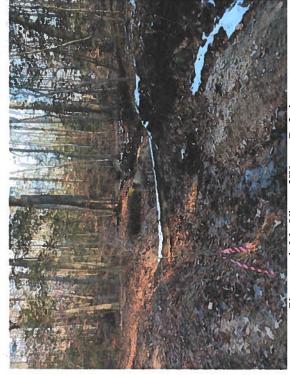
Photograph 33: View of Waters N, facing southeast.



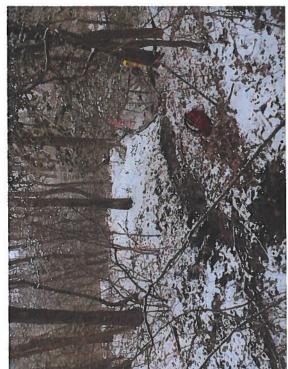
Photograph 35: View of Waters Q, facing south.



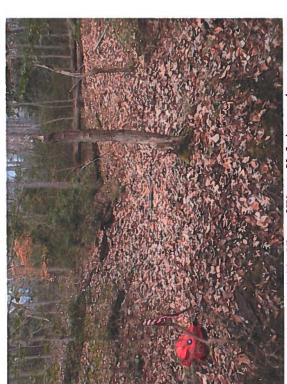
Photograph 34: View of Waters P, facing east.



Photograph 36: View of Waters R, facing west.



Photograph 37: View of Waters S, facing south.



Photograph 39: View of Waters U, facing southeast.



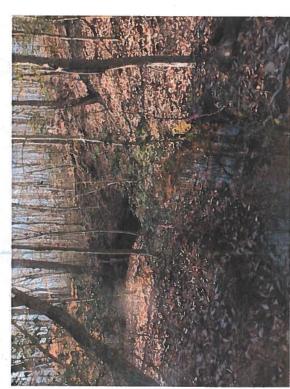
Photograph 38: View of Waters T, facing east.



Photograph 40: View of Waters V, facing north.



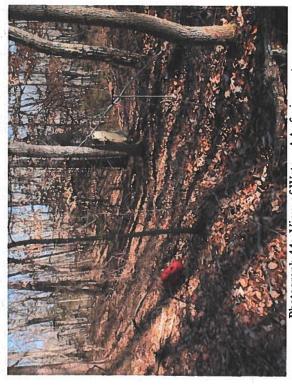
Photograph 41: View of Waters W, facing west.



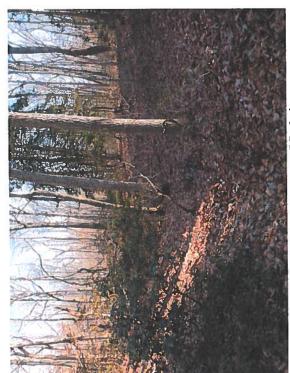
Photograph 43: View of Waters Z, facing southeast.



Photograph 42: View of Waters X, facing east.



Photograph 44: View of Waters AA, facing east.



Photograph 45: View of Waters BB, facing west.



Photograph 47: View of Waters DD, facing west.



Photograph 46: View of Waters CC, facing northwest.



Photograph 48: View of Waters EE, facing north.



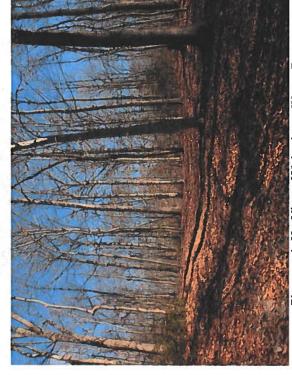
Photograph 49: View of Waters FF, facing north



Photograph 51: View of Waters HH, facing north.



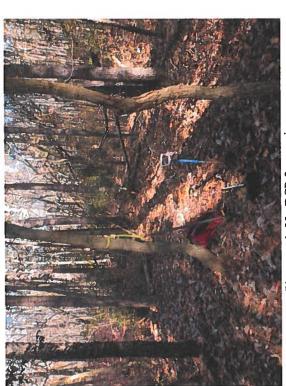
Photograph 50: View of Waters GG, facing west.



Photograph 52: View of Upland near Waters B.



Photograph 53: DCP-1, overview.



Photograph 55: DCP-2, overview.



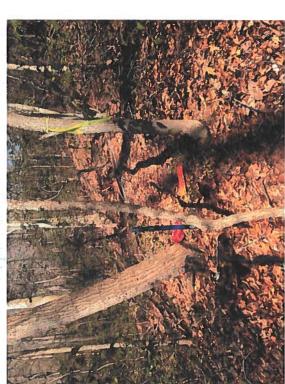
Photograph 54: DCP-1, soil sample.



Photograph 56: DCP-2, soil sample.



Photograph 57: DCP-3, overview.



Photograph 59: DCP-4, overview.



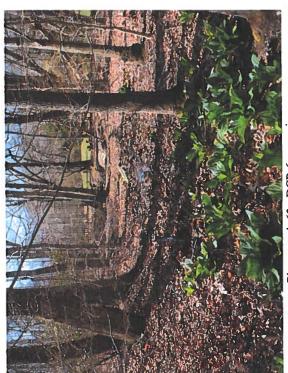
Photograph 58: DCP-3, soil sample.



Photograph 60: DCP-4, soil sample.



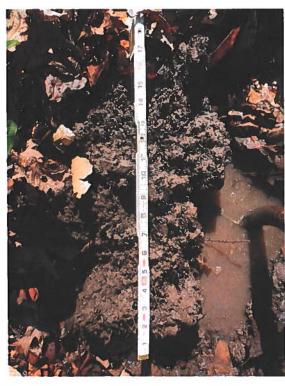
Photograph 61: DCP-5, overview.



Photograph 63: DCP-6, overview.



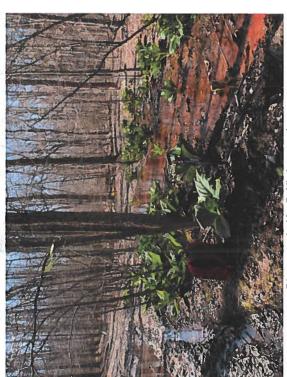
Photograph 62: DCP-5, soil sample.



Photograph 64: DCP-6, soil sample.



Photograph 65: DCP-7, overview.



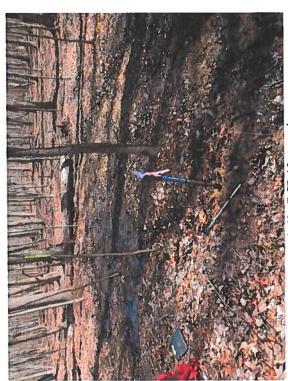
Photograph 67: DCP-8, overview.



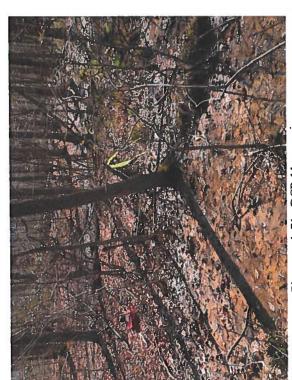
Photograph 66: DCP-7, soil sample.



Photograph 68: DCP-8, soil sample.



Photograph 69: DCP-10, overview.



Photograph 71: DCP-11, overview.



Photograph 70: DCP-10, soil sample.



Photograph 72: DCP-11, soil sample.



Photograph 73: DCP-12, overview.



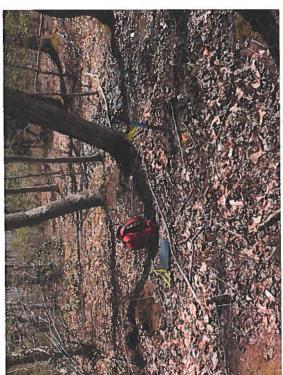
Photograph 75: DCP-13, overview.



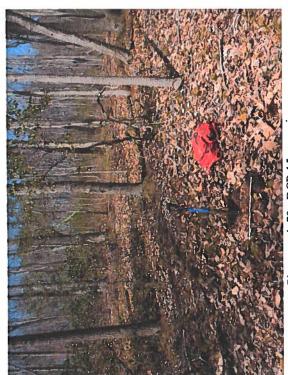
Photograph 74: DCP-12, soil sample.



Photograph 76: DCP-13, soil sample.



Photograph 77: DCP-14, overview.



Photograph 79: DCP-15, overview.



Photograph 78: DCP-14, soil sample.



Photograph 80: DCP-15, soil sample.



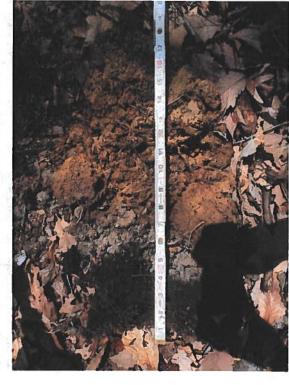
Photograph 81: DCP-16, overview.



Photograph 83: DCP-17, overview.



Photograph 82: DCP-16, soil sample.



Photograph 84: DCP-17, soil sample.



Photograph 85: DCP-18, overview.



Photograph 87: DCP-19, overview.



Photograph 86: DCP-18, soil sample.



Photograph 88: DCP-19, soil sample.



Photograph 89: DCP-20, overview.



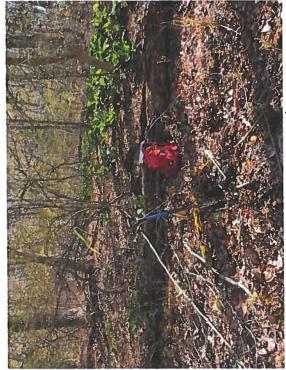
Photograph 91: DCP-21, overview.



Photograph 90: DCP-20, soil sample.



Photograph 92: DCP-21, soil sample.



Photograph 93: DCP-22, overview.



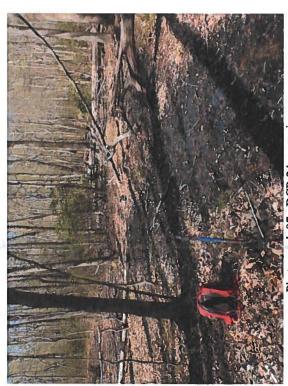
Photograph 95: DCP-23, overview.



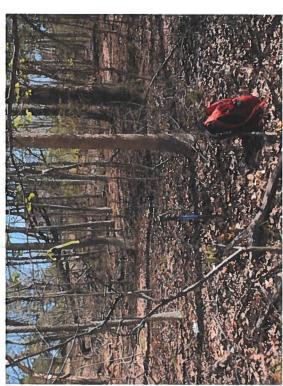
Photograph 94: DCP-22, soil sample.



Photograph 96: DCP-23, soil sample.



Photograph 97: DCP-24, overview.



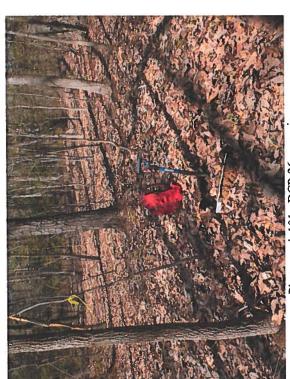
Photograph 99: DCP-25, overview.



Photograph 98: DCP-24, soil sample.



Photograph 100: DCP-25, soil sample.



Photograph 101: DCP-26, overview.



Photograph 103: DCP-27, overview.



Photograph 102: DCP-26, soil sample.



Photograph 104: DCP-27, soil sample.