Dickerson Power Plant

Montgomery County, Maryland

WSSI #MD2258.01

Waters of the U.S. (Including Wetlands) Delineation

September 15, 2023

Prepared for:
Soltesz
2 Research Place, Suite 100
Rockville, Maryland 20850

Prepared by:

1131 Benfield Boulevard, Suite L
Millersville, Maryland 21108
Tel: 410-672-5990 Email: contactus@wetlands.com
www.wetlands.com

Waters of the U.S. (Including Wetlands) Delineation

Dickerson Power Plant
(±291.72 acres)
WSSI #MD2258.01

Introduction

Wetland Studies and Solutions, Inc. (WSSI) has determined the boundaries of potentially jurisdictional wetlands and other waters of the U.S. (i.e., streams and ponds) on the referenced site. These waters of the U.S. include palustrine open water (POW), palustrine forested (PFO), palustrine emergent (PEM) wetlands, and perennial and intermittent stream channels associated with the Little Monocacy River and Potomac River. Our findings are depicted as a surveyed map on the Waters of the U.S. (Including Wetlands) Delineation Map (Attachment I) and are discussed briefly below.

Project Location

The site is located at 21200 Martinsburg Road in Dickerson, Montgomery County, Maryland. Exhibit 1 is a vicinity map that depicts the approximate boundaries of the site and its general location.

Methodology

This wetland delineation was performed pursuant to the *Corps of Engineers Wetlands Delineation Manual*, Technical Report Y-87-1 (1987 Manual) and subsequent guidance, and modified by the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region,* Version 2.0 dated April 2012. Field work was performed by Jennifer M. Favela, P.W.S.[1], Michael J. Klebasko, P.W.S.[2], Marius Flemmer, W.P.I.T.[3], Dan Lekites, Rachel Shumway, and Tom Ballinger on August 23, 2023.

Prior to conducting field work, relevant background information was reviewed, including, the U.S. Department of Agriculture - Natural Resources Conservation Service (NRCS) soil survey map for Montgomery County, Maryland (Exhibits 2a, 2b); the Digital National Wetlands Inventory maps (Exhibit 3, downloaded May 2023); the U.S. Geological Survey (USGS) maps which include 20-foot topographic lines, forest, structures, and roads, as well as the locations of ponds, intermittent, and perennial streams (Exhibit 4); the 2020 Infrared Aerial Photograph (Exhibit 5); and DNR Wetlands and Wetlands of Special State Concern (Exhibit 6). The watershed classification was also reviewed and pursuant to the Code of Maryland Regulations (COMAR) 26.08.02.08, the site drains to the Little Monocacy River and the Potomac River, which are both classified as Use I-P Waterways. Pursuant to COMAR 26.08.02.04-1, the Little Monocacy River and the Potomac River are not located within a Tier II watershed.

Observations of vegetation, soils, and hydrology were recorded at representative locations in the wetlands and adjacent non-wetland areas to determine the wetland boundaries. Wetland Determination data forms describing representative plant communities, hydrology indicators, and soil characteristics are included as Exhibit 7. Photographs of the data point locations, representative wetland and non-wetland communities, and other existing site conditions are

[1] *Professional Wetland Scientist #3033, Society of Wetlands Scientists Certification Program, Inc.*
[2] *Professional Wetland Scientist #777, Society of Wetlands Scientists Certification Program, Inc.*
[3] *Wetland Professional In Training, Society of Wetlands Scientists Certification Program, Inc.*

included in Exhibit 8. The surveyed locations of delineated wetlands, other waters of the U.S., data sites, and assessed stream reaches and the approximate locations of photographs are depicted on Attachment I.

Waters of the U.S. Delineation Findings

In WSSI's opinion, potentially jurisdictional wetlands and other waters of the U.S. (i.e., streams and ponds) are present on this site. These features include the Little Monocacy River (a USGS-mapped perennial stream), which enters and exits the site along the northern property line as well as two, small PEM wetlands (labeled as W-3 and W-4 on Attachment I) located along the northeastern property line.

WSSI also identified a potentially regulated wetland/stream system (labeled as S-3, S-4, W-11 and W-12) that originates in the southeastern corner of the site and drains in north-westerly direction to a culvert under an existing access road. It appears that the culvert connects flow from the wetland/stream system to the upper of three, man-made water storage ponds. Based on our review of historical environmental maps, it also appears that the three man-made ponds and adjacent PEM wetlands (labeled as W-5 through W-10) were originally constructed in-stream. As a result, these ponds and adjacent wetlands will likely be regulated features by both the U.S. Army Corps of Engineers (USACE) and the Maryland Department of the environment (MDE).

Another potentially regulated feature characterized as a PFO wetland (labeled as W-13) exists in the extreme southwestern corner of the site adjacent to the C & O Canal. This is a depressional wetland that is described in greater detail on Wetland Determination Data Form 2 in Exhibit 7.

Numerous, man-made stormwater management ponds (labeled as "Ex. SWM" on Attachment I) and concrete-lined drainage ditches are also scattered throughout the site. These features appear to have been constructed in uplands and are typically not regulated by either the USACE and the MDE. Written confirmation regarding the jurisdictional nature of these man-made features are required from both regulatory agencies.

Summary

In WSSI's opinion, jurisdictional wetlands and other waters of the U.S are present within the study area, based on our site observations, as described above and depicted on Attachment I.

The waters of the U.S. on the site (i.e., the wetlands, streams, and jurisdictional pond) are regulated by Sections 401 and 404 of the Clean Water Act and by state wetlands laws and cannot be disturbed without the appropriate permits. Such permits may include permits from local agencies, as well as the USACE and the MDE, depending upon the extent and type of impacts.

Limitations

This study is based on examination of the vegetation, soils and hydrology and available reference documents. Field indicators can change with variations in hydrology and other factors. Therefore, our conclusions may vary significantly from future observation by others. This report assesses the potential for wetlands at the site at the time of our review and does not address conditions at a given time in the future.

Our review and report have been prepared in accordance with generally accepted guidelines for the conduct of a survey for potential wetlands. Conclusions presented herein are

based upon our review of available information, the results of our field studies, and/or professional judgement. We make no other warranties, either expressed or implied, and our report is not a recommendation to buy, sell or develop the property.

We offer no opinion and do not purport to opine on the possible application of various building codes, zoning ordinances, other land use or platting regulations, environmental or health laws and other similar statutes, laws, ordinances, code and regulations affecting the possible use and occupancy of the Property for the purpose for which it is being used, except as specifically provided above.

The foregoing opinions are based on applicable laws, ordinances, and regulations in effect as of the date hereof and should not be construed to be an opinion as to the matters set out herein should such laws, ordinances or regulations be modified, repealed or amended.

Any reuse or modification of any of this document (whether hard copies or electronic transmittals) prepared by WSSI without written verification or adaptation by WSSI will be at the sole risk of the individual or entity utilizing said document and such use is without the authorization of WSSI. WSSI shall have no legal liability resulting from any and all claims, damages, losses, and expenses, including attorney's fees arising out of the unauthorized reuse or modification of this document. Client shall indemnify WSSI from any claims arising out of unauthorized use or modification of the document whether hard copy or electronic.

This report does not constitute a jurisdictional determination of waters of the U.S. since such determinations must be verified by the U.S. Army Corps of Engineers or the Maryland Department of the Environment (as applicable), and are subject to review by the U.S. Environmental Protection Agency.

WETLAND STUDIES AND SOLUTIONS, INC.

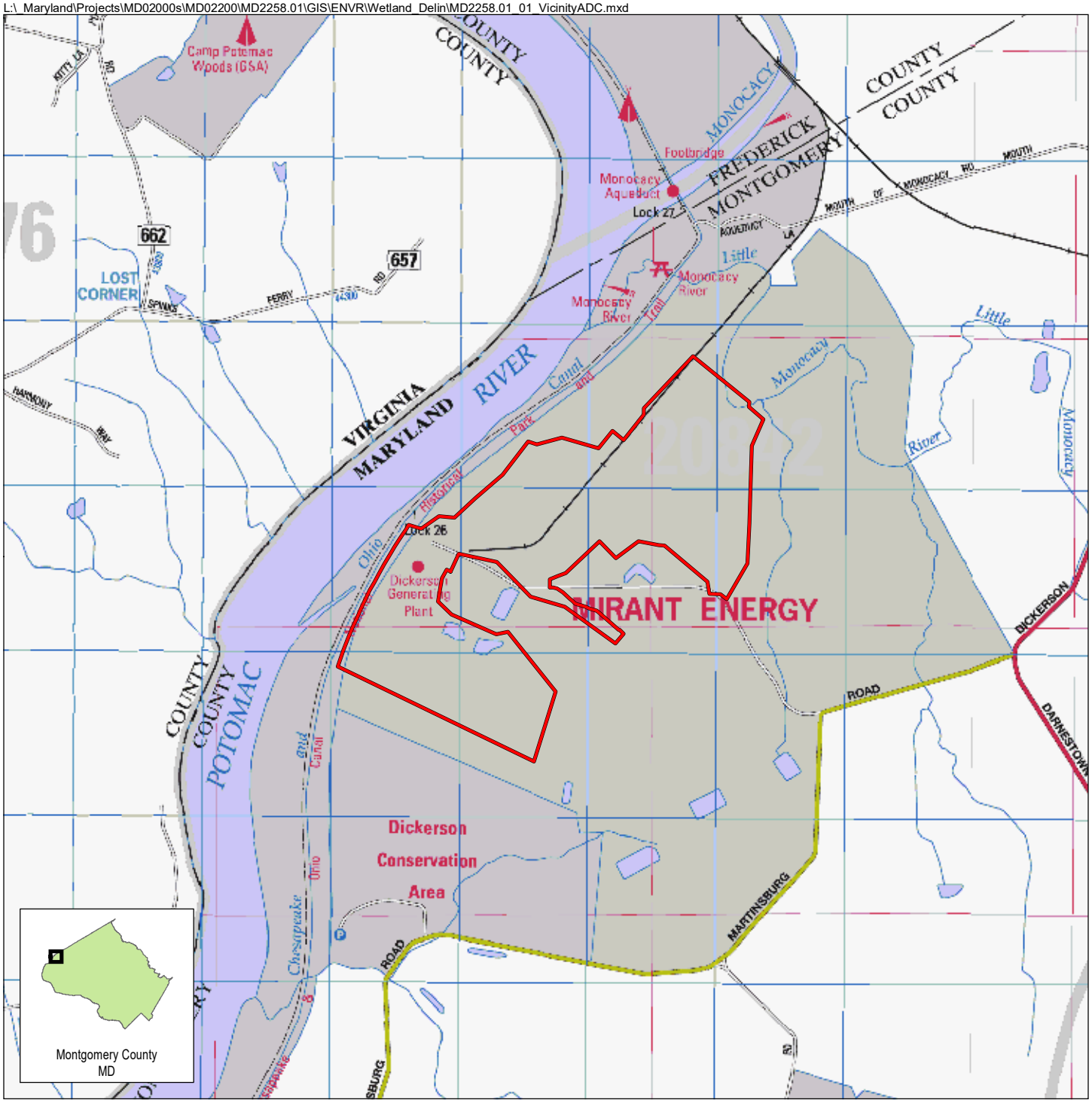
Michael J. Klebasko, PWS
Maryland Environmental Science Manager

Marius Flemmer, WPIT
Environmental Scientist

L:_Maryland\Projects\MD02000s\MD02200\MD2258.01\Admin\05-ENVR\Wet Del\Components\Working\Delin Rpt_Dickerson Power Plant_.docx

EXHIBIT 1

L:_Maryland\Projects\MD02000s\MD02200\MD2258.01\GIS\ENVR\Wetland_Delin\MD2258.01_01_VicinityADC.mxd



Site

Vicinity Map
Dickerson Power Plant
WSSI #MD2258.01

NORTH
0 2,000
Feet
Original Scale:
1 " = 2,000 '

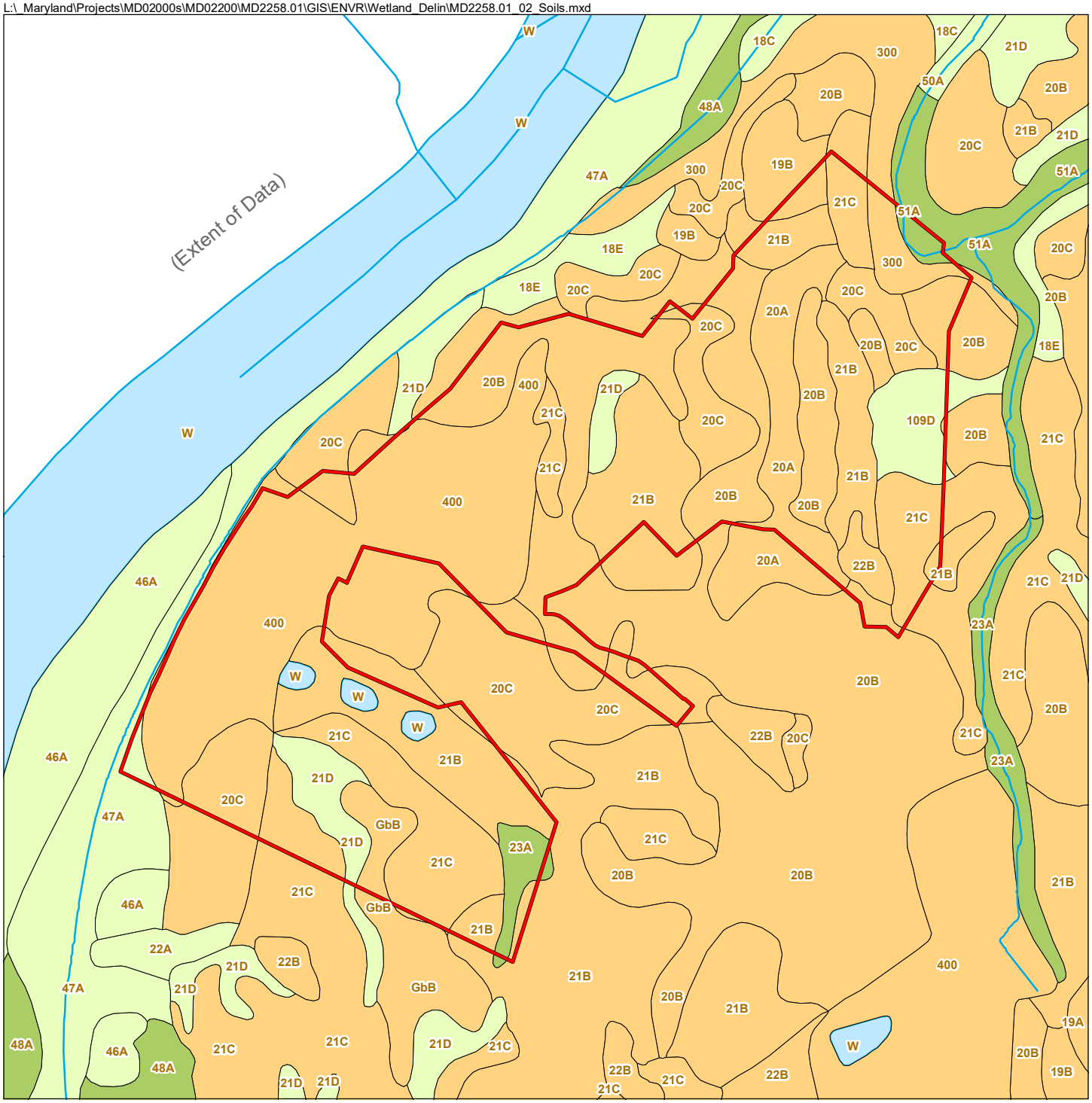
ADC Map/Column/Row: 4925G7
Source: ADC 2008-2012

Wetland Studies and Solutions, Inc.
a DAVEY company

Exhibit 1

EXHIBIT 2

L:_Maryland\Projects\MD02000s\MD02200\MD2258.01\GIS\ENVR\Wetland_Delin\MD2258.01_02_Soils.mxd



Site
Hydric Soil
Soil with Hydric Inclusion
Non-Hydric Soil
Water

Soils Map
Dickerson Power Plant
WSSI #MD2258.01

NORTH
0 1,000
Feet
Original Scale:
1 " = 1,000 '

Major Land Resource Area: Northern Piedmont, 148
Land Resource Region: Northern Atlantic Slope Diversified Farming Region, S
Source: Montgomery County Digital Data, U.S. Department of Agriculture, 2021

Wetland Studies and Solutions, Inc.
a DAVEY company

Exhibit 2a

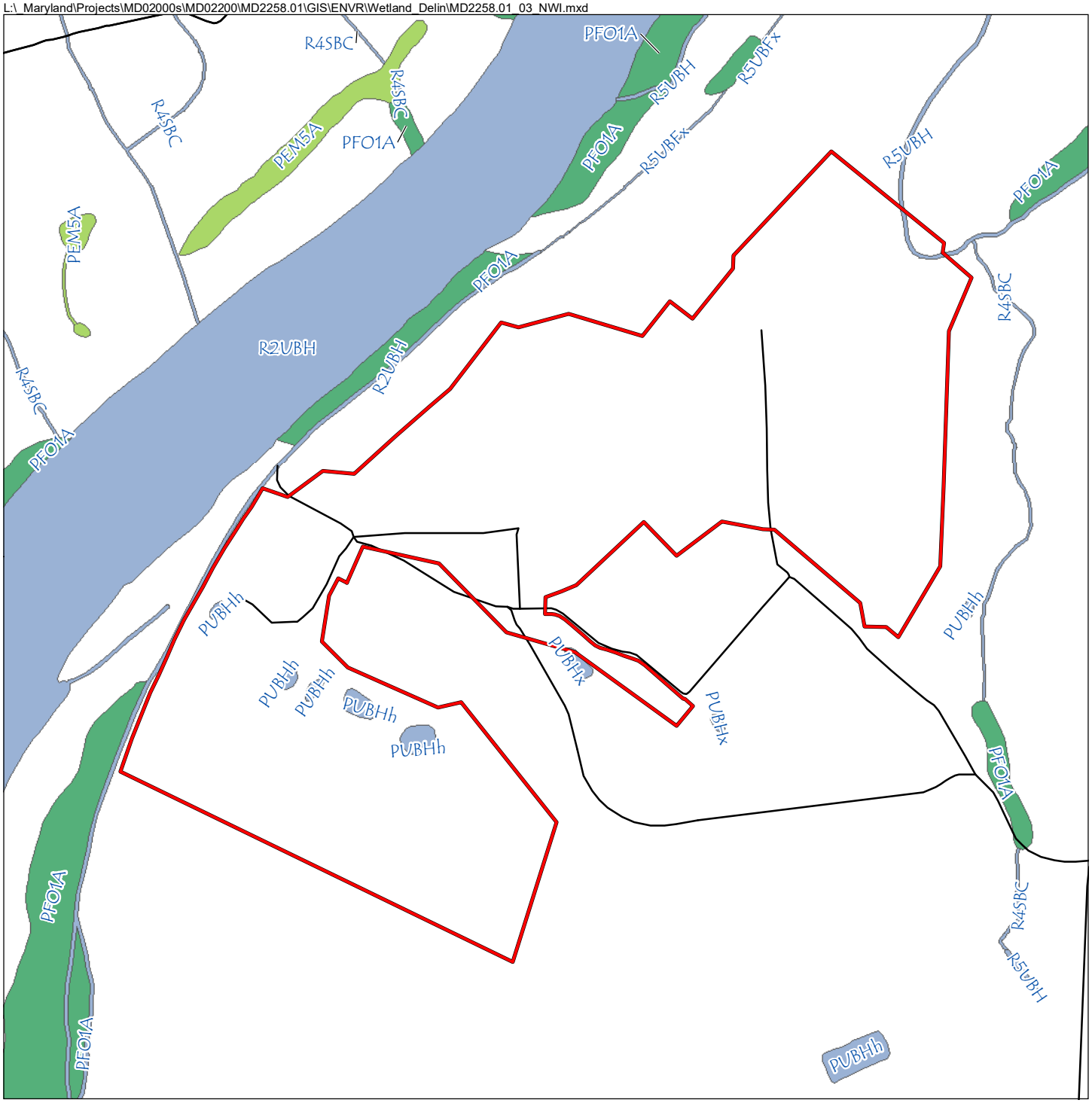
Exhibit 2b: MAPPED SOIL TYPES

Map Unit Symbol	Map Unit Name	Hydric Rating	Hydrologic Soil Group	K Factor (Whole Soil)
19B	Bucks silt loam, 3 to 8 percent slopes	0	B	0.37
20A	Brentsville sandy loam, 0 to 3 percent slopes	0	C	0.28
20B	Brentsville sandy loam, 3 to 8 percent slopes	0	C	0.28
20C	Brentsville sandy loam, 8 to 15 percent slopes	0	C	0.28
21B	Penn silt loam, 3 to 8 percent slopes	0	B	0.37
21C	Penn silt loam, 8 to 15 percent slopes	0	B	0.37
21D	Penn silt loam, 15 to 25 percent slopes	5	B	0.43
22B	Readington silt loam, 3 to 8 percent slopes		C	0.37
23A	Croton silt loam, occasionally ponded, 0 to 3 percent slopes	85	D	0.43
47A	Lindside silt loam, 0 to 3 percent slopes, occasionally flooded	10	C	0.43
51A	Bowmansville-Melvin silt loams, 0 to 2 percent slopes, occasionally flooded	100	C/D	0.43
109D	Hyattstown channery silt loam, 15 to 25 percent slopes, very rocky	5	D	0.24
300	Rock outcrop-Blocktown complex	0	N/A	N/A
400	Urban land	0	D	N/A
GbB	Goresville and Bucks soils, 3 to 8 percent slopes	0	C	0.28
W	Census water	0	N/A	N/A

Source: http://websoilsurvey.nrcs.usda.gov (August 2023)

EXHIBIT 3

L:_Maryland\Projects\MD02000s\MD02200\MD2258.01\GIS\ENVR\Wetland_Delin\MD2258.01_03_NWI.mxd



Site

Wetland Type

- Open Water
- Freshwater Forested/Shrub Wetland
- Freshwater Emergent Wetland
- Estuarine and Marine Wetland
- Other

Digital National Wetlands Inventory Map
Dickerson Power Plant
WSSI #MD2258.01

NORTH
0 1,000
Feet
Original Scale:
1 " = 1,000 '

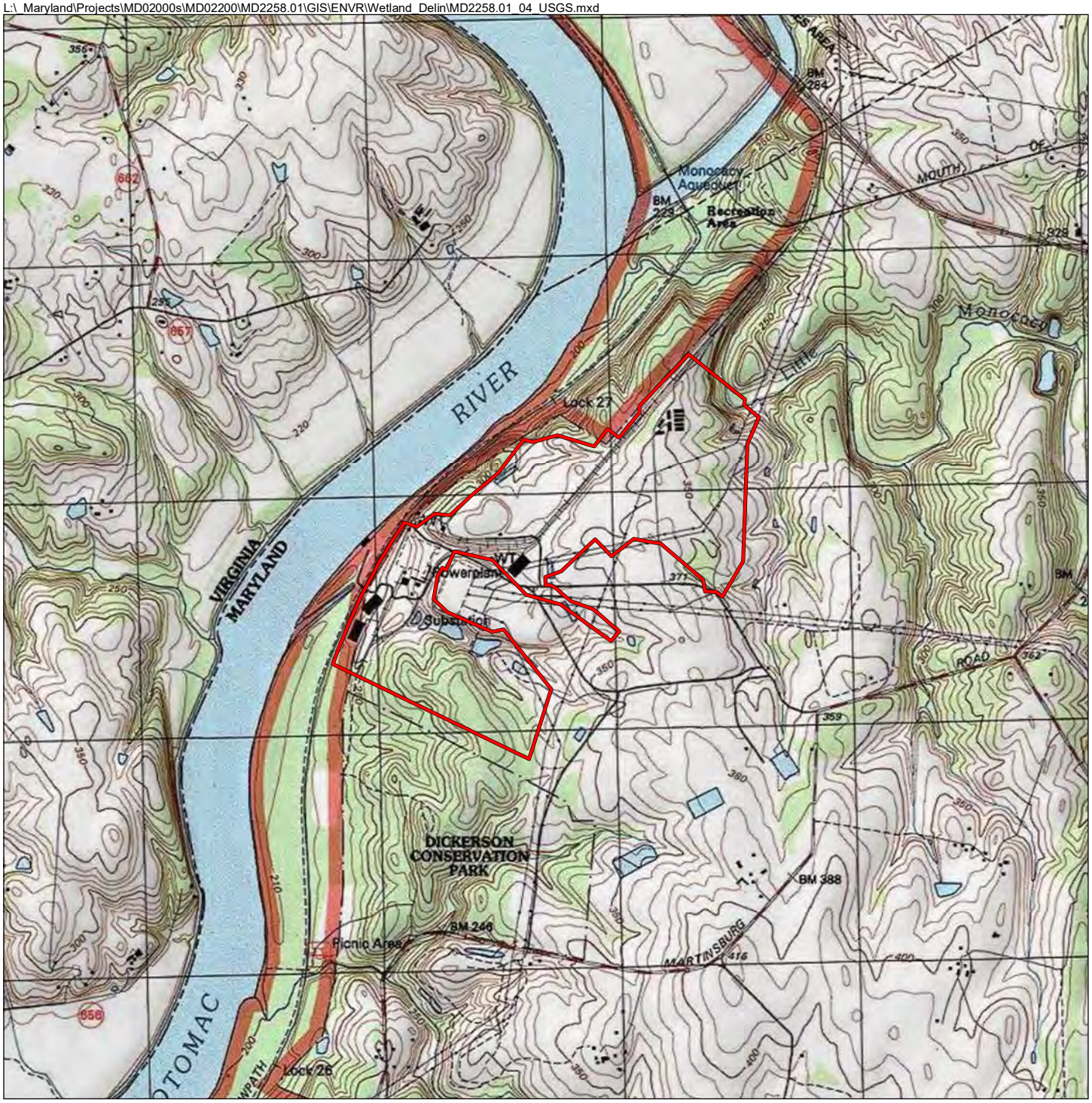
Source: U.S. Fish and Wildlife Service; May 2023

Wetland Studies and Solutions, Inc.
a DAVEY company

Exhibit 3

EXHIBIT 4

L:_Maryland\Projects\MD02000s\MD02200\MD2258.01\GIS\ENVR\Wetland_Delin\MD2258.01_04_USGS.mxd



Site

USGS 7.5' Quadrangle Map
Dickerson Power Plant
WSSI #MD2258.01

NORTH
0 2,000
Feet
Original Scale:
1 " = 2,000 '

Poolesville, MD VA 1997
Latitude: 39°12'36"N
Longitude: 77°27'28"W
Hydrologic Unit Code (HUC): 020700080402; 020700080403
HUC12 Name: Little Monocacy River; Limestone Branch-Potomac River
COE Region: Eastern Mountains and Piedmont

Wetland Studies and Solutions, Inc.
a DAVEY company

Exhibit 4

EXHIBIT 5

L:_Maryland\Projects\MD02000s\MD02200\MD2258.01\GIS\ENVR\Wetland_Delin\MD2258.01_05_2020_MD_iMapNCIR.mxd

Site

Spring 2020 Near Color Infrared Imagery
Dickerson Power Plant
WSSI #MD2258.01

NORTH
0 1,000
Feet
Original Scale:
1 " = 1,000 '

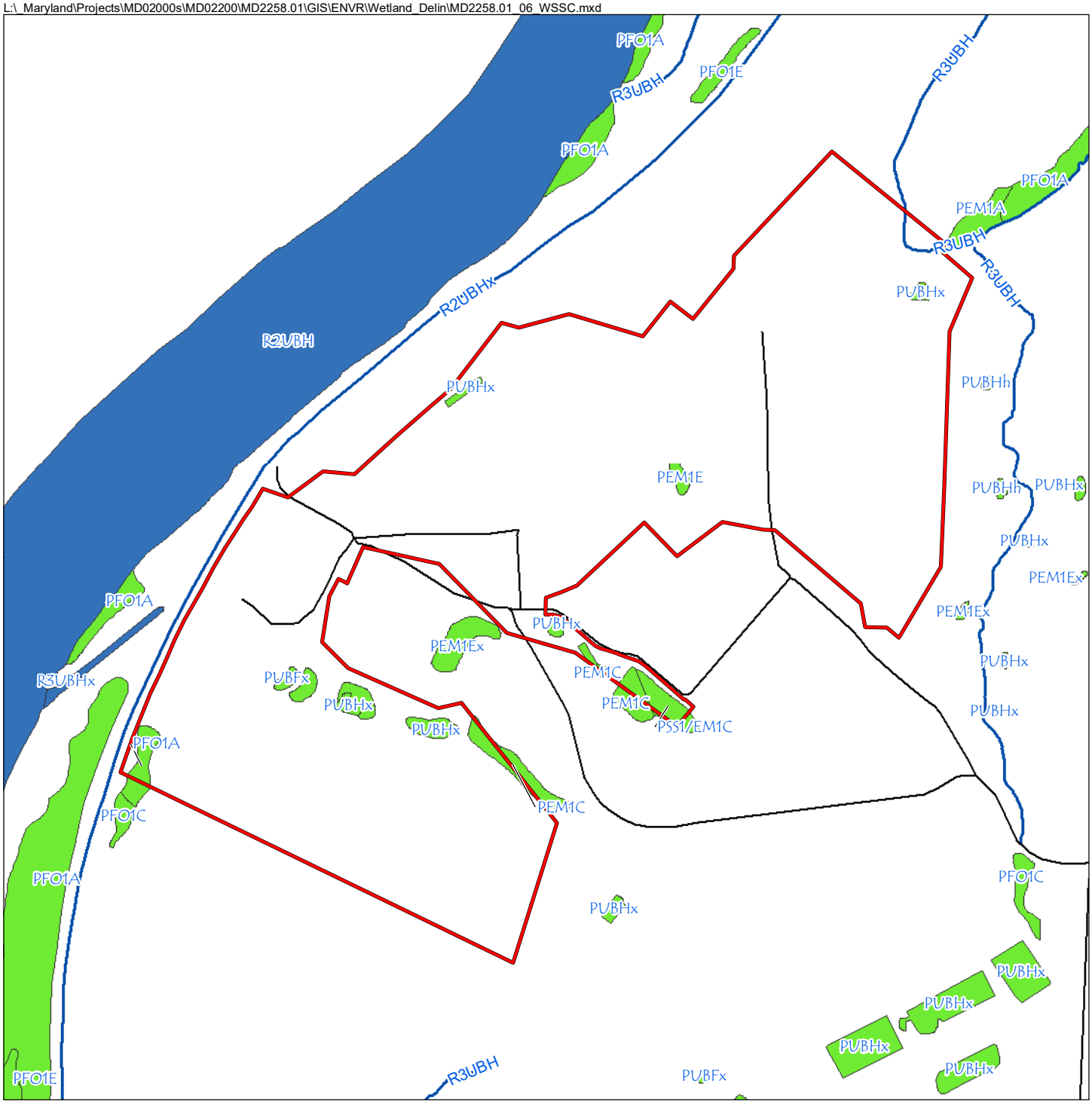
Source: DoIT, MDP, MD iMAP

Wetland Studies and Solutions, Inc.
a DAVEY company

Exhibit 5

EXHIBIT 6

L:_Maryland\Projects\MD02000s\MD02200\MD2258.01\GIS\ENVR\Wetland_Delin\MD2258.01_06_WSSC.mxd



Site

Wetland Type

- Estuarine
- Lacustrine
- Marine
- Palustrine
- Riverine
- Wetlands of Special State Concern

DNR Wetlands and
Wetlands of Special State Concern
Dickerson Power Plant
WSSI #MD2258.01

NORTH

0 1,000

Feet

Original Scale:
1 " = 1,000 '

Source: MD Department of Natural Resources (DNR); September 2018

Wetland Studies and Solutions, Inc.
a DAVEY company

Exhibit 6

EXHIBIT 7

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Dickerson Power Plant City/County: Montgomery Sampling Date: 2023-08-23

Applicant/Owner: Soltesz State: Maryland Sampling Point: DP1

Investigator(s): MF/TB Section, Township, Range: Dickerson

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): Concave Slope (%): 3

Subregion (LRR or MLRA): S 148 Lat: 39.20663723 Long: -77.46010028 Datum: NAD 83

Soil Map Unit Name: 20C - Brentsville sandy loam NWI classification: _____

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

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

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

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

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

Remarks:

Only two (i.e., hydrophytic vegetation and hydric soils) of the three wetland parameters were satisfied at this data point, which characterizes an herbaceous upland in the southeastern portion of the site.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes _____ No ✔

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

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: DP1

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Juniperus virginiana	3		FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	3% = Total Cover		

50% of total cover: 1.5 20% of total cover: 0.6

Herb Stratum (Plot size: 5 ft r)			
1. Panicum virgatum	80	✔	FAC
2. Microstegium vimineum	20		FAC
3. Asclepias syriaca	3		FACU
4. Nyssa sylvatica	2		FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	105% = Total Cover		

50% of total cover: 52.5 20% of total cover: 21.0

Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	102	x 3 =	306
FACU species	6	x 4 =	24
UPL species	0	x 5 =	0
Column Totals:	108 (A)		330 (B)

Prevalence Index = B/A = 3.06

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

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

SOIL Sampling Point: DP1

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	2.5Y 5/1	95	2.5Y 5/4	5	C	M	Silty Clay	
12 - 17	2.5YR 5/1	85	10YR 5/4	15	C	M	Silty Clay	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✔ **No** ___

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Dickerson Power Plant City/County: Montgomery Sampling Date: 2023-08-23

Applicant/Owner: Soltesz State: Maryland Sampling Point: DP2

Investigator(s): MK/DL Section, Township, Range:

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): S 148 Lat: 39.20621537 Long: -77.46817167 Datum: WGS 84

Soil Map Unit Name: 47A - Lindside silt loam, 0 to 3 percent slopes, occasionally flooded NWI classification:

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

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

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

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

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

Remarks:

All three wetland parameters (i.e., wetland hydrology, hydrophytic vegetation, and hydric soils) were satisfied at this data point, which characterizes a palustrine forested wetland in the southwestern portion of the site.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ✔ Inundation Visible on Aerial Imagery (B7)
- ✔ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ✔ No ____

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

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: DP2

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer saccharinum	50	✔	FACW
2. Acer negundo	15	✔	FAC
3.			
4.			
5.			
6.			
7.			
	65% = Total Cover		
50% of total cover: 32.5	20% of total cover: 13.0		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Lysimachia nummularia	35	✔	FACW
2. Microstegium vimineum	30	✔	FAC
3. Persicaria hydropiperoides	30	✔	OBL
4. Boehmeria cylindrica	5		FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100% = Total Cover		
50% of total cover: 50.0	20% of total cover: 20.0		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	30	x 1 =	30
FACW species	90	x 2 =	180
FAC species	45	x 3 =	135
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	165 (A)		345 (B)

Prevalence Index = B/A = 2.09

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

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

SOIL Sampling Point: DP2

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	5YR 4/2		5YR 4/6	15	C	M	Silt Loam	
8 - 17	5YR 4/4		5YR 3/1	10			Silt Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✔ **No** ____

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Dickerson Power Plant City/County: Montgomery Sampling Date: 2023-08-23

Applicant/Owner: Soltesz State: Maryland Sampling Point: DP3

Investigator(s): MK/DL Section, Township, Range:

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR or MLRA): S 148 Lat: 39.20513109 Long: -77.46051223 Datum: WGS 84

Soil Map Unit Name: 21C - Penn silt loam NWI classification:

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

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

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

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

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

Remarks:

All three wetland parameters (i.e., wetland hydrology, hydrophytic vegetation, and hydric soils) were satisfied at this data point, which characterizes a palustrine emergent wetland in the southern portion of the site.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ✔ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ✔ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No ✔	Depth (inches): ____
Water Table Present?	Yes ____	No ✔	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ✔	No ____	Depth (inches): 14

Wetland Hydrology Present? Yes ✔ No ____

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

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: DP3

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0% = Total Cover		
50% of total cover: 0	20% of total cover: 0		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Microstegium vimineum	3	✔	FAC
2. Boehmeria cylindrica	3	✔	FACW
3. Acer rubrum	2	✔	FAC
4. Persicaria longiseta	1		FAC
5. Vitis riparia	1		FACW
6.			
7.			
8.			
9.			
10.			
11.			
	10% = Total Cover		
50% of total cover: 5	20% of total cover: 2		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	4	x 2 =	8
FAC species	6	x 3 =	18
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	10 (A)		26 (B)

Prevalence Index = B/A = 2.60

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

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

SOIL Sampling Point: DP3

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 2	2.5Y 7/1		10BG 8/	35			Clay Loam	No redox, just multiple colors in matrix
2 - 8	5B 8/		5YR 6/8	10	C	M	Clay Loam	
8 - 12	5B 8/		5YR 6/8	10	C	M	Clay Loam	
12 - 16	5Y 6/1		7.5YR 6/6	10	C	M	Clay Loam	
8 - 12	5Y 5/1	10					Clay Loam	
2 - 8	2.5Y 6/1	10					Clay Loam	
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ✔ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✔ **No** ___

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Dickerson Power Plant City/County: Montgomery Sampling Date: 2023-08-23

Applicant/Owner: Soltesz State: Maryland Sampling Point: DP-1X

Investigator(s): JF, RS Section, Township, Range:

Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): S 148 Lat: 39.21166077 Long: -77.45064773 Datum: NAD 83

Soil Map Unit Name: 21B - Penn silt loam NWI classification:

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

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

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

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

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

Remarks:

All three wetland parameters (i.e., wetland hydrology, hydrophytic vegetation, and hydric soils) were satisfied at this data point, which characterizes a palustrine emergent wetland in the northeastern portion of the site.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ✔ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ✔ No ____

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

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: DP-1X

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 5 x 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5 ft r)			
1. Persicaria hydropiper	60	✔	OBL
2. Echinochloa crus-galli	15		FAC
3. Persicaria pensylvanica	5		FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	80% = Total Cover		
50% of total cover: 40.0	20% of total cover: 16.0		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	60	x 1 =	60
FACW species	5	x 2 =	10
FAC species	15	x 3 =	45
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	80 (A)		115 (B)

Prevalence Index = B/A = 1.44

Hydrophytic Vegetation Indicators:

✔ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

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

SOIL Sampling Point: DP-1X

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	7.5YR 4/2	78	7.5YR 4/4	2	C	M	Clay Loam	
0 - 12			2.5YR 3/4	20	C	M		
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 12

Hydric Soil Present? **Yes** ✔ **No** ___

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Dickerson Power Plant City/County: Montgomery Sampling Date: 2023-08-23

Applicant/Owner: Soltesz State: Maryland Sampling Point: DP 2X

Investigator(s): JF, RS Section, Township, Range:

Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 6

Subregion (LRR or MLRA): S 148 Lat: 39.2089262 Long: -77.44943138 Datum: NAD 83

Soil Map Unit Name: 21C - Penn silt loam NWI classification:

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

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

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

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

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

Remarks:

None of the three wetland parameters (i.e., wetland hydrology, hydrophytic vegetation, and hydric soils) were satisfied at this data point, which characterizes an herbaceous upland in the northeastern portion of the site.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

SOIL Sampling Point: DP 2X

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 10	5YR 3/2	99	7.5YR 4/6	1	C	M	Sandy Clay Loam	
10 - 18	7.5YR 3/2	98	7.5YR 4/4	2	C	M	Sandy Clay Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ **No** ✔

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: DP 2X

Tree Stratum (Plot size: 3x8 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 3x8 ft)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 3x8 ft)			
1. Microstegium vimineum	60	✔	FAC
2. Poa pratensis	15		FACU
3. Persicaria hydropiperoides	10		OBL
4. Tsuga canadensis	10		FACU
5. Asclepias syriaca	2		FACU
6. Senecio hieraciifolius	2		FACU
7. Solanum carolinense	2		FACU
8.			
9.			
10.			
11.			
	101% = Total Cover		
50% of total cover: 50.5	20% of total cover: 20.2		
Woody Vine Stratum (Plot size: 3x8 ft)			
1. Lonicera japonica	5	✔	FACU
2.			
3.			
4.			
5.			
	5% = Total Cover		
50% of total cover: 2.5	20% of total cover: 1.0		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	0	x 2 =	0
FAC species	60	x 3 =	180
FACU species	36	x 4 =	144
UPL species	0	x 5 =	0
Column Totals:	106 (A)		334 (B)

Prevalence Index = B/A = 3.15

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No ✔

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

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Dickerson Power Plant City/County: Montgomery Sampling Date: 2023-08-23

Applicant/Owner: Soltsez State: Maryland Sampling Point: DP-3X

Investigator(s): JF, RS Section, Township, Range:

Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR or MLRA): S 148 Lat: 39.21471805 Long: -77.44963433 Datum: NAD 83

Soil Map Unit Name: 20C - Brentsville sandy loam NWI classification:

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

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

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

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

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

Remarks:

None of the three wetland parameters (i.e., wetland hydrology, hydrophytic vegetation, and hydric soils) were satisfied at this data point, which characterizes a forested upland in the northern portion of the site.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ✔ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches):____

Water Table Present? Yes ____ No ✔ Depth (inches):____

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches):____

Wetland Hydrology Present? Yes ✔ No____

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

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: DP-3X

Tree Stratum (Plot size: 3 x 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Elaeagnus umbellata	5	✔	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	5% = Total Cover		

50% of total cover: 2.5 20% of total cover: 1.0

Herb Stratum (Plot size: 5 ft r)			
1. Acer rubrum	1		FAC
2. Perilla frutescens	1		FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	2% = Total Cover		

50% of total cover: 1.0 20% of total cover: 0.4

Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

50% of total cover: _____ 20% of total cover: _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	1	x 3 =	3
FACU species	1	x 4 =	4
UPL species	5	x 5 =	25
Column Totals:	7 (A)		32 (B)

Prevalence Index = B/A = 4.57

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes _____ No ✔

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

>30%

SOIL Sampling Point: DP-3X

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 5	10YR 3/2	100					Clay Loam	
-								
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 5

Hydric Soil Present? **Yes** ____ **No** ✔

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Dickerson Power Plant City/County: Montgomery Sampling Date: 2023-09-06

Applicant/Owner: Soltesz State: Maryland Sampling Point: DP4

Investigator(s): MF/HK Section, Township, Range: Dickerson

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Slope (%): 3

Subregion (LRR or MLRA): S 148 Lat: 39.20545492 Long: -77.45823707 Datum: NAD 83

Soil Map Unit Name: Brentsville sandy loam NWI classification: PFO

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

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

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

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

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

Remarks:

All three wetland parameters (i.e., wetland hydrology, hydrophytic vegetation, and hydric soils) were satisfied at this data point, which characterizes a palustrine forested wetland in the southern portion of the study area.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✔ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No ✔	Depth (inches): _____
Water Table Present?	Yes _____	No ✔	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes ✔	No _____	Depth (inches): 10

Wetland Hydrology Present? Yes ✔ No _____

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

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: DP4

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus palustris	15	✔	FACW
2. Acer rubrum	10	✔	FAC
3. Liriodendron tulipifera	5		FACU
4.			
5.			
6.			
7.			
	30 = Total Cover		
50% of total cover: 15.00	20% of total cover: 6.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Quercus palustris	10	✔	FACW
2. Acer rubrum	5	✔	FAC
3. Elaeagnus umbellata	2		
4. Juniperus virginiana	2		FACU
5. Quercus velutina	2		
6.			
7.			
8.			
9.			
	21 = Total Cover		
50% of total cover: 10.50	20% of total cover: 4.20		
Herb Stratum (Plot size: 5 ft r)			
1. Agrostis capillaris	2		FAC
2. Phragmites australis	2		FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	4 = Total Cover		
50% of total cover: 2.00	20% of total cover: 0.80		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
50% of total cover: 0.00	20% of total cover: 0.00		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	27	x 2 =	54
FAC species	17	x 3 =	51
FACU species	7	x 4 =	28
UPL species	0	x 5 =	0
Column Totals:	51 (A)		133 (B)

Prevalence Index = B/A = 2.61

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

✔ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

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

SOIL Sampling Point: DP4

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 2								Duff
2 - 5	10YR 4/4	100					Sandy Loam	
5 - 8	7.5YR 4/3	95	7.5YR 5/8	5	C	M	Silt Loam	
8 - 16	10YR 4/1	90	7.5YR 4/4	10	C	M	Silty Clay	
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✔ **No** _____

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Dickerson Power Plant City/County: Montgomery Sampling Date: 2023-09-06

Applicant/Owner: Soltesz State: Maryland Sampling Point: DP5

Investigator(s): MF/MK Section, Township, Range: Dickerson

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Slope (%): 3

Subregion (LRR or MLRA): S 148 Lat: 39.20532052 Long: -77.45842549 Datum: NAD 83

Soil Map Unit Name: Brentsville sandy loam NWI classification: None

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

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

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

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

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

Remarks:

Only one (i.e., wetland hydrology, hydrophytic vegetation, and hydric soils) of the three wetland parameters was satisfied at this data point, which characterizes a forested upland in the southern portion of the study area.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ✔ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes _____ No ✔

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

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: DP5

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus palustris	40	✔	FACW
2.			
3.			
4.			
5.			
6.			
7.			
	40 = Total Cover		
50% of total cover: 20.00	20% of total cover: 8.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Acer rubrum	15	✔	FAC
2. Juniperus virginiana	10	✔	FACU
3. Pinus virginiana	2		
4. Sassafras albidum	2		FACU
5.			
6.			
7.			
8.			
9.			
	29 = Total Cover		
50% of total cover: 14.50	20% of total cover: 5.80		
Herb Stratum (Plot size: 5 ft r)			
1. Lolium perenne	20	✔	FACU
2. Phragmites australis	5	✔	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	25 = Total Cover		
50% of total cover: 12.50	20% of total cover: 5.00		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
50% of total cover: 0.00	20% of total cover: 0.00		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	45	x 2 =	90
FAC species	15	x 3 =	45
FACU species	32	x 4 =	128
UPL species	0	x 5 =	0
Column Totals:	92 (A)		263 (B)

Prevalence Index = B/A = 2.86

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

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

SOIL Sampling Point: DP5

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 2	10YR 5/6	100					Silt Loam	
2 - 8	10YR 4/4	70	10YR 5/6	30	C	M	Silt Loam	
8 - 15	10YR 4/4	90	10YR 5/6	10	C	M	Silt Loam	
15 - 17	7.5YR 5/3	70	7.5YR 5/6	20	C	M	Silty Clay Loam	
15 - 17			10YR 5/1	10	D	M	Silty Clay Loam	
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Dickerson Power Plant City/County: Montgomery Sampling Date: 2023-09-06

Applicant/Owner: Soltesz State: Maryland Sampling Point: DP6

Investigator(s): MF/MK Section, Township, Range: Dickerson

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): Concave Slope (%): 3

Subregion (LRR or MLRA): S 148 Lat: 39.20771582 Long: -77.45621116 Datum: NAD 83

Soil Map Unit Name: Brentsville sandy loam NWI classification: None

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

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

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

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

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

Remarks:

Only two (i.e., wetland hydrology, hydrophytic vegetation, and hydric soils) of the three wetland parameters were satisfied at this data point, which characterizes a forested upland in the southeastern portion of the study area.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ✔ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No ✔	Depth (inches): ___
Water Table Present?	Yes ___	No ✔	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ✔	No ___	Depth (inches): 14

Wetland Hydrology Present? Yes ___ No ✔

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

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: DP6

Tree Stratum (Plot size: 30 ft r)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prunus serotina	10	✔	FACU
2. Diospyros virginiana	5	✔	FAC
3.			
4.			
5.			
6.			
7.			
	15 = Total Cover		
50% of total cover: 7.50	20% of total cover: 3.00		
Sapling/Shrub Stratum (Plot size: 15 ft r)			
1. Diospyros virginiana	35	✔	FAC
2. Prunus serotina	15	✔	FACU
3. Juniperus virginiana	10		FACU
4. Elaeagnus umbellata	5		
5.			
6.			
7.			
8.			
9.			
	65 = Total Cover		
50% of total cover: 32.50	20% of total cover: 13.00		
Herb Stratum (Plot size: 5 ft r)			
1. Phragmites australis	65	✔	FACW
2. Microstegium vimineum	15		FAC
3. Potentilla indica	10		FACU
4. Acer rubrum	5		FAC
5. Juncus effusus	5		FACW
6. Boehmeria cylindrica	2		FACW
7. Parthenocissus quinquefolia	2		FACU
8.			
9.			
10.			
11.			
	104 = Total Cover		
50% of total cover: 52.00	20% of total cover: 20.80		
Woody Vine Stratum (Plot size: 30 ft r)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
50% of total cover: 0.00	20% of total cover: 0.00		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60.00 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	72	x 2 =	144
FAC species	60	x 3 =	180
FACU species	47	x 4 =	188
UPL species	0	x 5 =	0
Column Totals:	179 (A)		512 (B)

Prevalence Index = B/A = 2.86

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✔ No ___

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

SOIL Sampling Point: DP6

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 11	7.5YR 4/4	90	5YR 5/8	10	C	M	Loam	
11 - 16	10G 4/1	90	7.5YR 4/4	10	C	M	Silt Loam	
-								
-								
-								
-								
-								
-								
-								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked 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)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1) **(LRR N, MLRA 147, 148)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 136, 122)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✔ **No** _____

Remarks:

EXHIBIT 8

EXHIBIT 08
SITE PHOTOGRAPHS
DICKERSON POWER PLANT
WSSI #MD2258.01

1. View of soil profile at Data Point 1 (08/23/23).

2. View of vegetation at Data Point 1 (08/23/23).

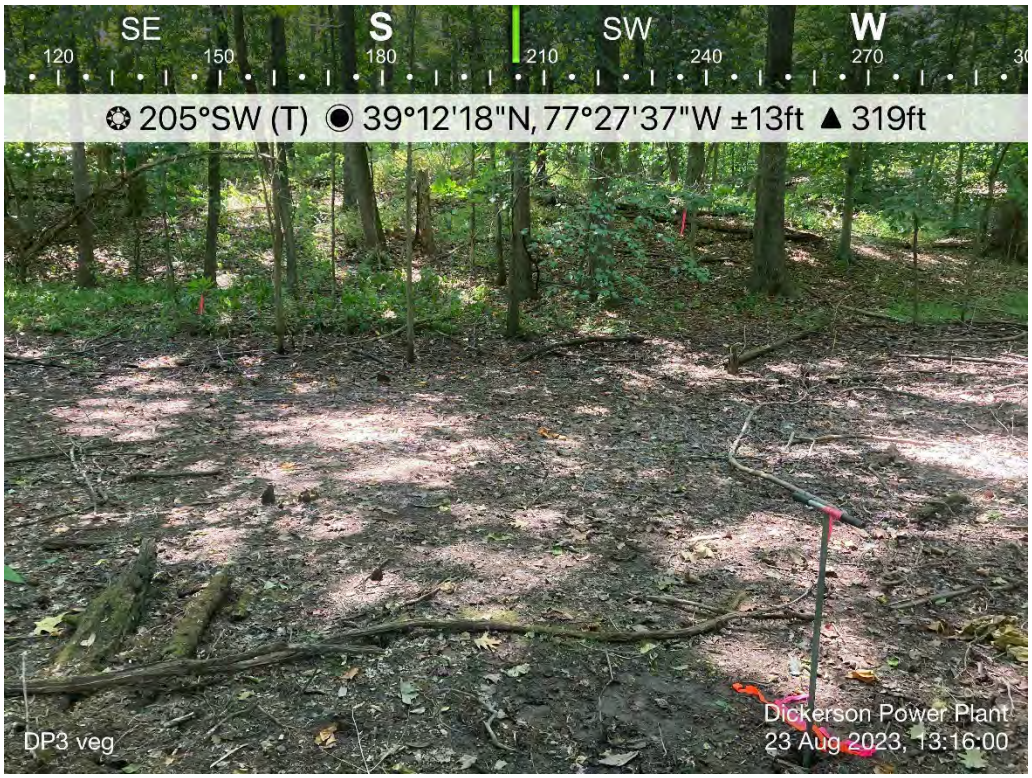
EXHIBIT 08
SITE PHOTOGRAPHS
DICKERSON POWER PLANT
WSSI #MD2258.01

3. **View of soil profile at Data Point 2 (08/23/23).**

4. **View of vegetation at Data Point 2 (08/23/23).**

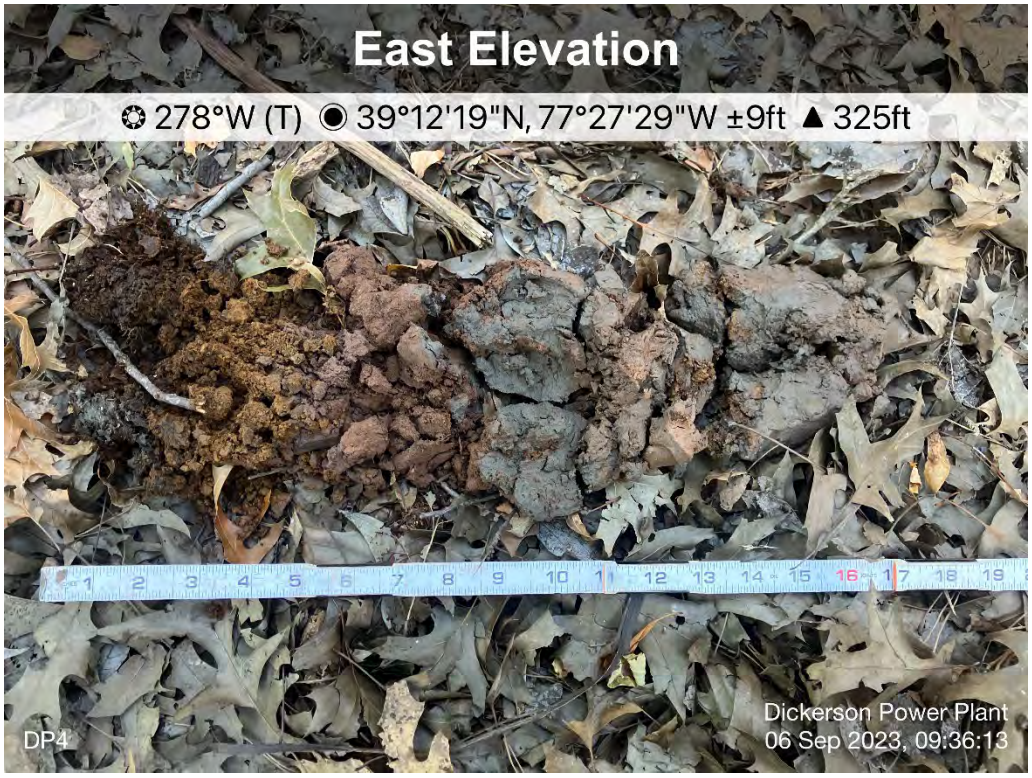
EXHIBIT 08
SITE PHOTOGRAPHS
DICKERSON POWER PLANT
WSSI #MD2258.01

5. View of soil profile at Data Point 3 (08/23/23).

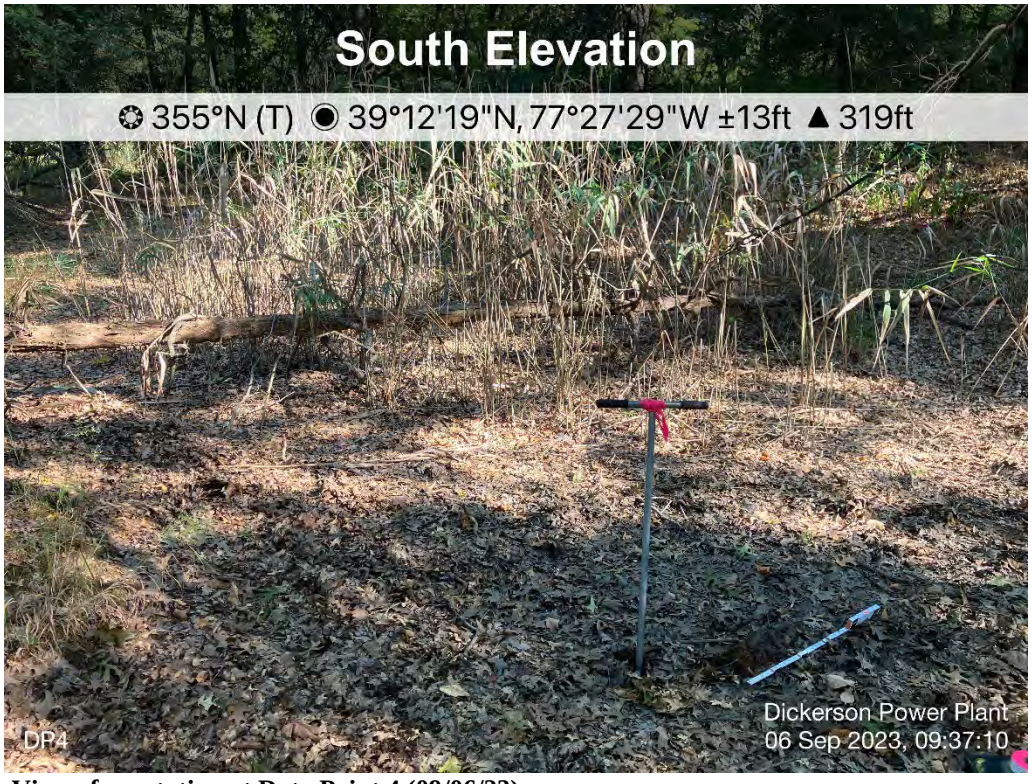


6. View of vegetation at Data Point 3 (08/23/23).

EXHIBIT 08
SITE PHOTOGRAPHS
DICKERSON POWER PLANT
WSSI #MD2258.01

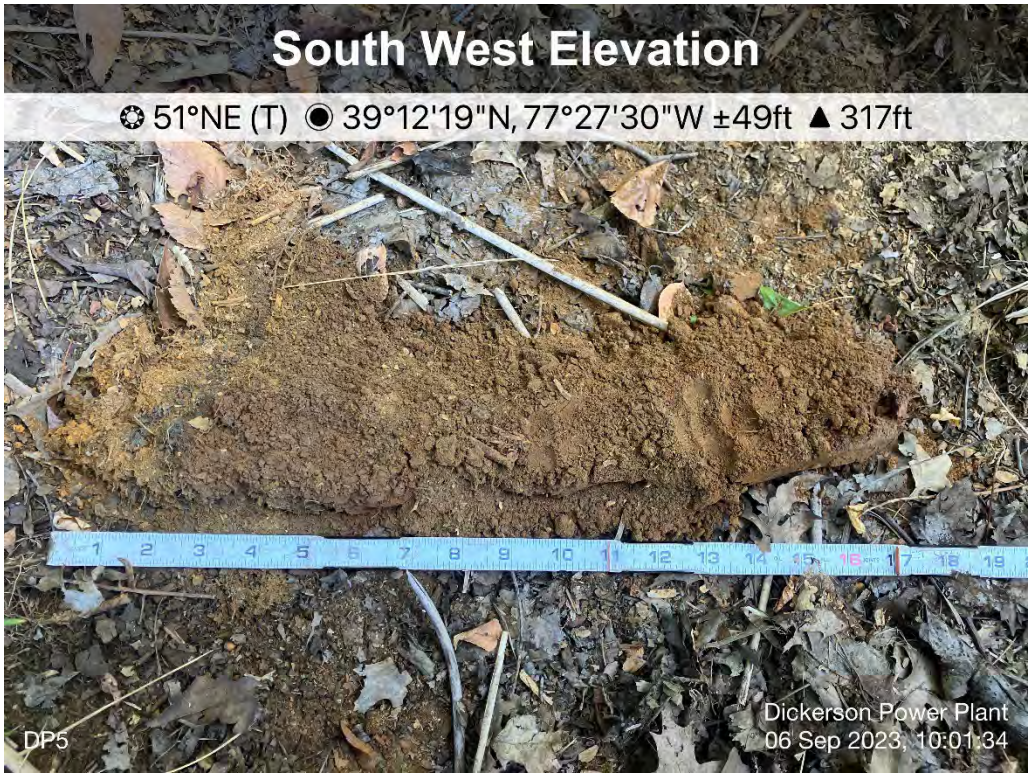


7. View of soil profile at Data Point 4 (09/06/23).

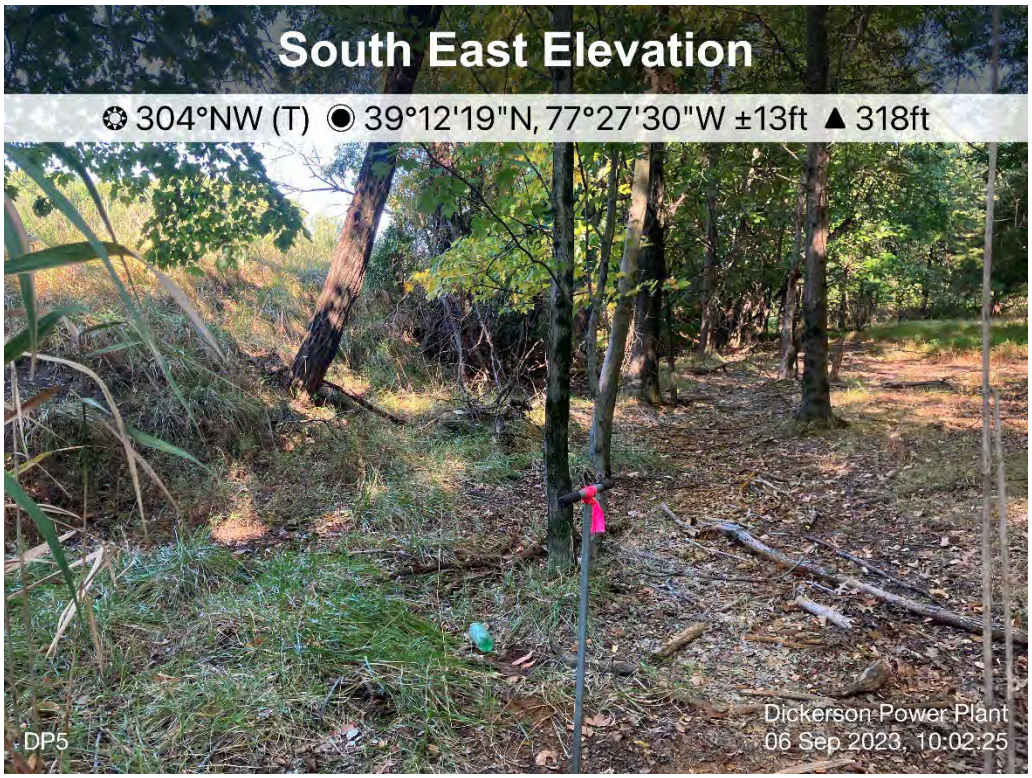


8. View of vegetation at Data Point 4 (09/06/23).

EXHIBIT 08
SITE PHOTOGRAPHS
DICKERSON POWER PLANT
WSSI #MD2258.01



9. View of soil profile at Data Point 5 (09/06/23).



10. View of vegetation at Data Point 5 (09/06/23).

EXHIBIT 08
SITE PHOTOGRAPHS
DICKERSON POWER PLANT
WSSI #MD2258.01

11. View of soil profile at Data Point 6 (09/06/23).

12. View of vegetation at Data Point 6 (09/06/23).

EXHIBIT 08
SITE PHOTOGRAPHS
DICKERSON POWER PLANT
WSSI #MD2258.01

13. View of concrete-lined stormwater management basin (08/23/23).

14. View of perennial stream channel located in the northwestern portion of the site (08/23/23).

EXHIBIT 08
SITE PHOTOGRAPHS
DICKERSON POWER PLANT
WSSI #MD2258.01

15. View of man-made, in-line pond near flag L-21 (08/23/23).

16. View of man-made, power plant water storage pond at flag M-29 (08/23/23).

EXHIBIT 08
SITE PHOTOGRAPHS
DICKERSON POWER PLANT
WSSI #MD2258.01

17. View of lower man-made, power plant water storage pond at flag S5 (08/23/23).

18. View of man-made concrete lined water storage pond – not flagged (08/23/23).

EXHIBIT 08
SITE PHOTOGRAPHS
DICKERSON POWER PLANT
WSSI #MD2258.01

19. View of off-line, man-made stormwater management pond with rip-rap outfall (08/23/23).

20. Downslope view of palustrine forested wetland near flag O32 (08/23/23).

EXHIBIT 08
SITE PHOTOGRAPHS
DICKERSON POWER PLANT
WSSI #MD2258.01

21. View of man-made stormwater management pond in the central, eastern portion of the site (08/23/23).

22. View of typical concrete-lined ditch in the central portion of the site (08/23/23).

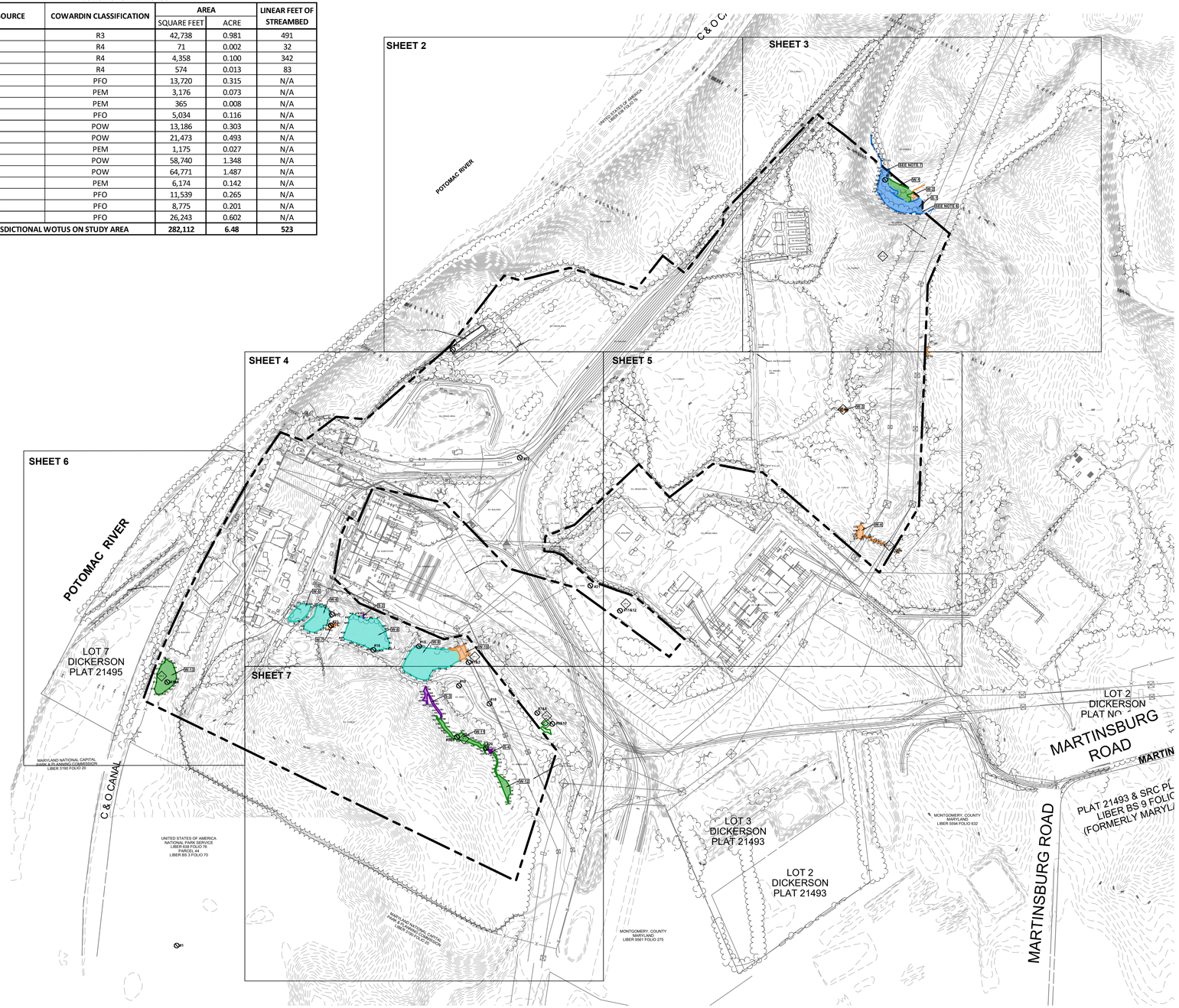
EXHIBIT 08
SITE PHOTOGRAPHS
DICKERSON POWER PLANT
WSSI #MD2258.01

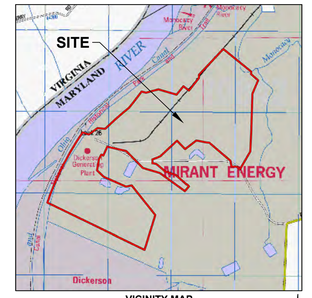
23. View of palustrine emergent wetland (R flag series) in the southern portion of the site (08/23/23).

ATTACHMENT 1

JURISDICTIONAL WOTUS

AQUATIC RESOURCE	COWARDIN CLASSIFICATION	AREA		LINEAR FEET OF STREAMBED
		SQUARE FEET	ACRE	
S-1	R3	42,738	0.981	491
S-2	R4	71	0.002	32
S-3	R4	4,358	0.100	342
S-4	R4	574	0.013	83
W-1	PFO	13,720	0.315	N/A
W-2	PEM	3,176	0.073	N/A
W-3	PEM	365	0.008	N/A
W-4	PFO	5,034	0.116	N/A
W-5	POW	13,186	0.303	N/A
W-6	POW	21,473	0.493	N/A
W-7	PEM	1,175	0.027	N/A
W-8	POW	58,740	1.348	N/A
W-9	POW	64,771	1.487	N/A
W-10	PEM	6,174	0.142	N/A
W-11	PFO	11,539	0.265	N/A
W-12	PFO	8,775	0.201	N/A
W-13	PFO	26,243	0.602	N/A
TOTAL JURISDICTIONAL WOTUS ON STUDY AREA		**282,112**	**6.48**	**523**





VICINITY MAP
SCALE: 1" = 2,000"

WATERS OF THE U.S. DELINEATION AND SURVEY NOTES:

1. Periodic flag numbers are shown depicting the survey-located boundary of wetlands and other waters of the U.S. (i.e., streams, ponds, etc.). Waters of the U.S. flags are pink-glo in color. Data points are flagged with orange-glo and pink-glo flagging tied together.
2. Topo/boundary information obtained in digital format from Montgomery County digital data was used as a base for this Attachment.
3. This delineation was performed pursuant to the "Corps of Engineers Wetlands Delineation Manual," Technical Report Y-87-1 (1987 Manual) and subsequent guidance and modification by the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region (Version 2.0) dated April 2012.
4. Field work was performed on August 23, 2023 by Michael J. Klebasko, P.W.S., Jennifer M. Favela, P.W.S., Marius Flemmer, W.P.I.T., Tom Ballinger, and Dan Lekites.
5. The site drains to the Little Monocacy River (8 DIGIT HUC - 02070008) and an Unnamed Tributary to Potomac River (8 DIGIT HUC - 02070008) are classified as Use I-P waterways per the Code of Maryland Regulations (COMAR) 26.08.02.08.
6. This water of the U.S. (i.e., stream or wetland) originates outside of the study area, upslope.
7. This water of the U.S. (i.e., stream or wetland) continues outside of the study area, downslope.
8. Ponds, such as the three in the southern part of the site, that were created on-line in stream channels are generally considered jurisdictional waters of the U.S.
9. The terms "Intermittent" and "Perennial" used on this Attachment classify and describe the flow regime character of streams, are based on WSSI's field observations, and are only provided for state and local regulatory purposes. The flow regimes of streams are not verified by the COE; however, the geographic limits of these streams are all subject to COE jurisdiction, and the COE's approval of this delineation represents only the approval of the geographic limits of waters of the U.S.
10. WSSI has delineated and surveyed the outer limits of jurisdictional areas within the project site. Many of the jurisdictional areas on the site are composed of systems containing different wetland (i.e., PFO and PEM) and stream (i.e., R3 and R4) types. The approximate limits of the different wetland and stream types within the surveyed jurisdictional areas are depicted as a thin colored line of the associated wetland or stream type.
11. Total Site Area: 291.72 acres

LEGEND

- SITE BOUNDARY
- PERENNIAL STREAM (PER WSSI'S OBSERVATIONS)
- INTERMITTENT STREAM (PER WSSI'S OBSERVATIONS)
- PALUSTRINE FORESTED WETLAND AREAS
- PALUSTRINE EMERGENT WETLAND AREAS
- PALUSTRINE OPEN WATER AREAS (POND)
- #1 SITE PHOTOGRAPHS
- D6 + WETLAND FLAGGING POINT/NUMBER (pink-glo)
- DATA POINT LOCATION/NUMBER (orange and pink-glo) (NOT SURVEYED)

COWARDIN CLASSIFICATION

R3	RIVERINE UPPER PERENNIAL
R4	RIVERINE INTERMITTENT
PFO	PALUSTRINE FORESTED WETLAND
PEM	PALUSTRINE EMERGENT WETLAND
POW	PALUSTRINE OPEN WATER

GRAPHIC SCALE
500 0 250 500 1000 2000
(IN FEET)
1 inch = 500 ft.
NORTH

Wetland Studies and Solutions, Inc. a DAVEY company
1131 Benfield Boulevard • Suite L
Millersville, Maryland 21108
Phone: 410-672-5990 • Fax: 410-672-5993
www.wetlands.com

WATERS OF THE U.S. (INCLUDING WETLANDS) DELINEATION

MD2258.01

Prepared For: Soltesz

Dickerson Power Plant

Montgomery County, Maryland

REVISIONS

No.	Date	Description	Rev. By	App. By

DATE: September 15, 2023
SCALE: 1" = 100' C.I.: 2'

Horizontal Datum: NAD83
Vertical Datum: NAVD89
Boundary and Topo Source: Soltesz
Montgomery County GIS

Design	Draft	Approved
MF	MF	MJK

Sheet # 1 of 7

Computer File Name:
2023-09-11_Dickerson_Wet Del_LOD ONLY.dwg

C:\WSSI\...\Maryland\Projects\MD\2000s\MD2258.01\CAD\D4SAVE\Wet Del

POTOMAC RIVER

UNITED STATES OF AMERICA
LIBER 638 FOLIO 76

MATCHLINE SHEET 3

EX. FOREST

EX. GRASS AREA

EX. SWM FACILITY

EX. WALL

EX. RAILWAY

EX. FOREST

#13

MATCHLINE SHEET 4

MATCHLINE SHEET 4

LEGEND

- SITE BOUNDARY
- PERENNIAL STREAM (PER WSSI'S OBSERVATIONS)
- INTERMITTENT STREAM (PER WSSI'S OBSERVATIONS)
- PALUSTRINE FORESTED WETLAND AREAS
- PALUSTRINE EMERGENT WETLAND AREAS
- PALUSTRINE OPEN WATER AREAS (POND)
- #1 — SITE PHOTOGRAPHS
- D6 + — WETLAND FLAGGING POINT/NUMBER (pink-glo)
- DATA POINT LOCATION/NUMBER (orange and pink-glo) (NOT SURVEYED)

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

NORTH

Wetland Studies and Solutions, Inc. a DAVEY company
1131 Benfield Boulevard • Suite L
Millersville, Maryland 21108
Phone: 410-672-5990 • Fax: 410-672-5993
www.wetlands.com

WATERS OF THE U.S. (INCLUDING WETLANDS) DELINEATION
MD2258.01
Prepared For: Soltesz

Dickerson Power Plant
Montgomery County, Maryland

REVISIONS

No.	Date	Description	Rev. By	App. By

DATE: September 15, 2023

SCALE: 1" = 100' C.I.: 2'

Horizontal Datum: NAD83

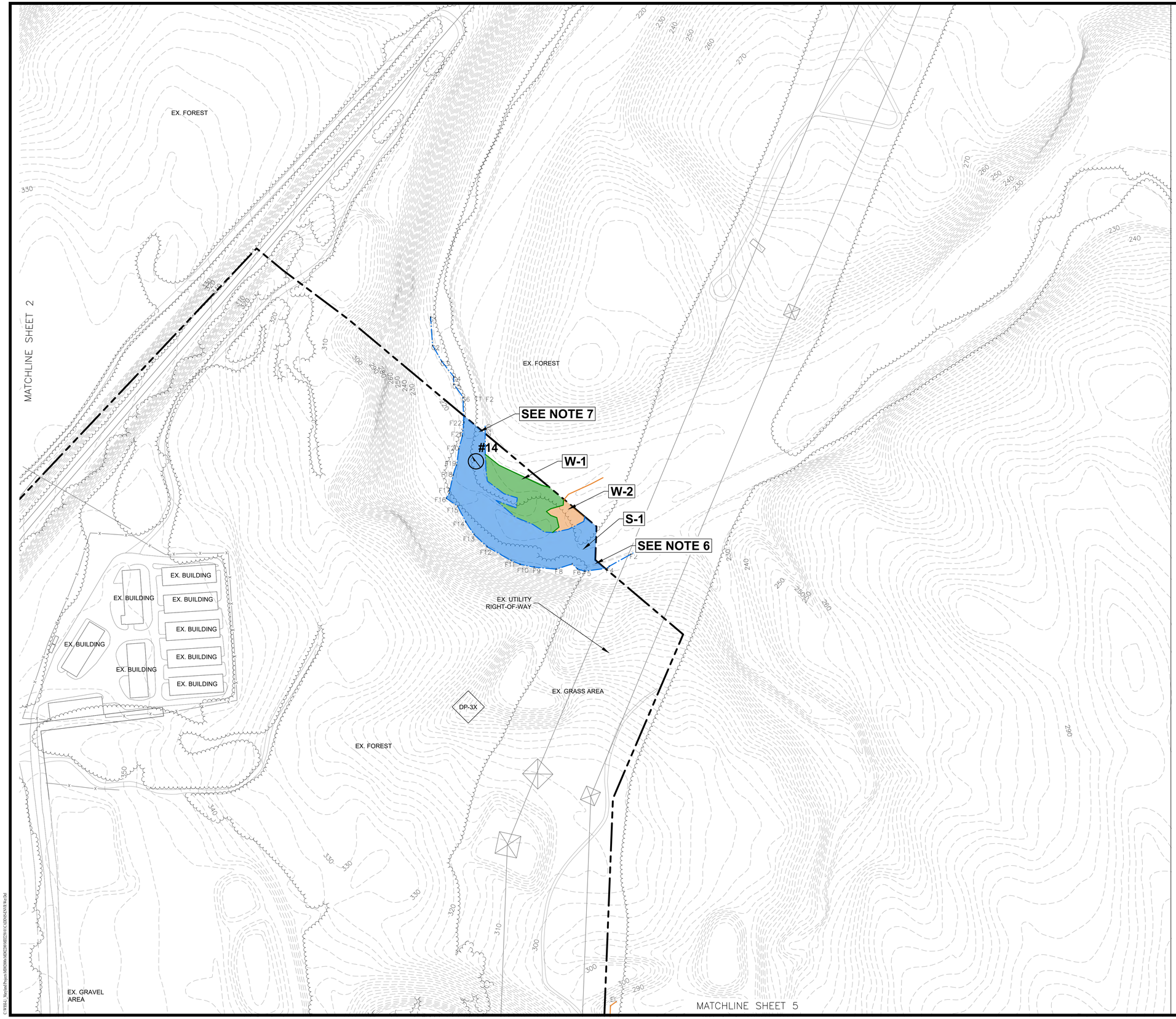
Vertical Datum: NAVD89

Boundary and Topo Source:
Soltesz
Montgomery County GIS

Design	Draft	Approved
MF	MF	MJK

Sheet # 2 of 7

Computer File Name:
2023-09-11_Dickerson_Wet Del_LOD ONLY.dwg



LEGEND

- SITE BOUNDARY
- PERENNIAL STREAM (PER WSSI'S OBSERVATIONS)
- INTERMITTENT STREAM (PER WSSI'S OBSERVATIONS)
- PALUSTRINE FORESTED WETLAND AREAS
- PALUSTRINE EMERGENT WETLAND AREAS
- PALUSTRINE OPEN WATER AREAS (POND)
- #1 — SITE PHOTOGRAPHS
- D6 + — WETLAND FLAGGING POINT/NUMBER (pink-glo)
- DATA POINT LOCATION/NUMBER (orange and pink-glo) (NOT SURVEYED)

NORTH

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

Wetland Studies and Solutions, Inc. a DAVEY company
1131 Benfield Boulevard • Suite L
Millersville, Maryland 21108
Phone: 410-672-5990 • Fax: 410-672-5993
www.wetlands.com

WATERS OF THE U.S. (INCLUDING WETLANDS) DELINEATION
MD2258.01
Prepared For: Soltesz

Dickerson Power Plant

Montgomery County, Maryland

REVISIONS

No.	Date	Description	Rev. By:	App. By:

DATE: September 15, 2023
SCALE: 1" = 100' C.I.: 2'

Horizontal Datum: NAD83
Vertical Datum: NAVD89
Boundary and Topo Source:
Soltesz
Montgomery County GIS

Design	Draft	Approved
MF	MF	MJK

Sheet # 3 of 7

Computer File Name:
2023-09-11 Dickerson Wet Del LOD ONLY.dwg

C:\WSSI\4 - Maryland Projects\MD2000s\MD2258.01\CAD\WD-EXST-Wet Del

MATCHLINE SHEET 2

MATCHLINE SHEET 5

MATCHLINE SHEET 6

MATCHLINE SHEET 7

EX. GRASS AREA

EX. PARKING LOT

EX. FOREST

EX. CONCRETE DITCH

EX. BUILDING

EX. SUBSTATION

EX. SWM

EX. OVERHEAD UTILITY LINE

EX. GRASS AREA

EX. PARKING LOT

EX. BUILDING

EX. BUILDING

BUILDING

N 31°52'10" E 177.69'

N 35°37'10" E 176.52'

N 35°37'10" E 176.85'

S 23°30'38" W 272.02'

N 66°28'53" W 73.94'

S 23°30'44" W 144.01'

S 09°53'28" W 314.03'

N 77°37'59" W 539.85'

N 44°07'34" W 686.99'

S 45°11'37" E 285.85'

S 66°54'06" E 67.21'

N 78°14'46" E 184.59'

S 04°23'32" W 109.70'

N 68°31'23" E 228.83'

N 85°36'28" W 75.63'

S 68°11'51" E 69.01'

S 45°11'37" E 285.60'

N 74°00'00" W 488.96'

N 70°01'

#1

#2

#15

#16

#17

#21

#22

#23

W-5

W-6

W-7

W-8

W-9

W-10

S-2

DP-1

LEGEND

- SITE BOUNDARY
- PERENNIAL STREAM (PER WSSI'S OBSERVATIONS)
- INTERMITTENT STREAM (PER WSSI'S OBSERVATIONS)
- PALUSTRINE FORESTED WETLAND AREAS
- PALUSTRINE EMERGENT WETLAND AREAS
- PALUSTRINE OPEN WATER AREAS (POND)
- #1 SITE PHOTOGRAPHS
- D6 + WETLAND FLAGGING POINT/NUMBER (pink-glo)
- DATA POINT LOCATION/NUMBER (orange and pink-glo) (NOT SURVEYED)

NORTH

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

Wetland Studies and Solutions, Inc. a DAVEY company
1131 Benfield Boulevard • Suite L
Millersville, Maryland 21108
Phone: 410-672-5990 • Fax: 410-672-5993
www.wetlands.com

WATERS OF THE U.S. (INCLUDING WETLANDS) DELINEATION

MD2258.01

Prepared For: Soltesz

Dickerson Power Plant

Montgomery County, Maryland

REVISIONS

No.	Date	Description	Rev. By:	App. By:

DATE: September 15, 2023

SCALE: 1" = 100' C.I.: 2'

Horizontal Datum: NAD83

Vertical Datum: NAVD89

Boundary and Topo Source:
Soltesz
Montgomery County GIS

Design	Draft	Approved
MF	MF	MJK

Sheet # 4 of 7

Computer File Name:
2023-09-11 Dickerson Wet Del LOD ONLY.dwg

C:\WSSI_Maylan\Projects\MD\MD2258.01\CAD\MD2258.01 Wet Del

MATCHLINE SHEET 2

MATCHLINE SHEET 3

MATCHLINE SHEET 4

EX. WATER EASEMENT

EX. GRAVEL AREA

EX. SWM

EX. FOREST

EX. GRASS AREA

EX. ROAD

EX. BUILDING

EX. SUBSTATION

W-3

W-4

DP-2X

DP-6

#11&12

N 79°14'25" W 315.78'

N 87°33'16" W 51.03'

S 42°50'01" E 328.97'

S 52°36'11" W 100.76'

S 49°20'46" E 1439.89'

N 67°50'24" W 62.24'

N 54°00'00" W 969.46'

LEGEND

- SITE BOUNDARY
- PERENNIAL STREAM (PER WSSI'S OBSERVATIONS)
- INTERMITTENT STREAM (PER WSSI'S OBSERVATIONS)
- PALUSTRINE FORESTED WETLAND AREAS
- PALUSTRINE EMERGENT WETLAND AREAS
- PALUSTRINE OPEN WATER AREAS (POND)
- #1 — SITE PHOTOGRAPHS
- D6 + — WETLAND FLAGGING POINT/NUMBER (pink-glo)
- DATA POINT LOCATION/NUMBER (orange and pink-glo) (NOT SURVEYED)

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

NORTH

Wetland Studies and Solutions, Inc. a DAVEY company
1131 Benfield Boulevard • Suite L
Millersville, Maryland 21108
Phone: 410-672-5990 • Fax: 410-672-5993
www.wetlands.com

WATERS OF THE U.S. (INCLUDING WETLANDS) DELINEATION

MD2258.01

Prepared For: Soltesz

Dickerson Power Plant

Montgomery County, Maryland

REVISIONS

No.	Date	Description	Rev. By:	App. By:

DATE: September 15, 2023

SCALE: 1" = 100' C.I.: 2'

Horizontal Datum: NAD83

Vertical Datum: NAVD89

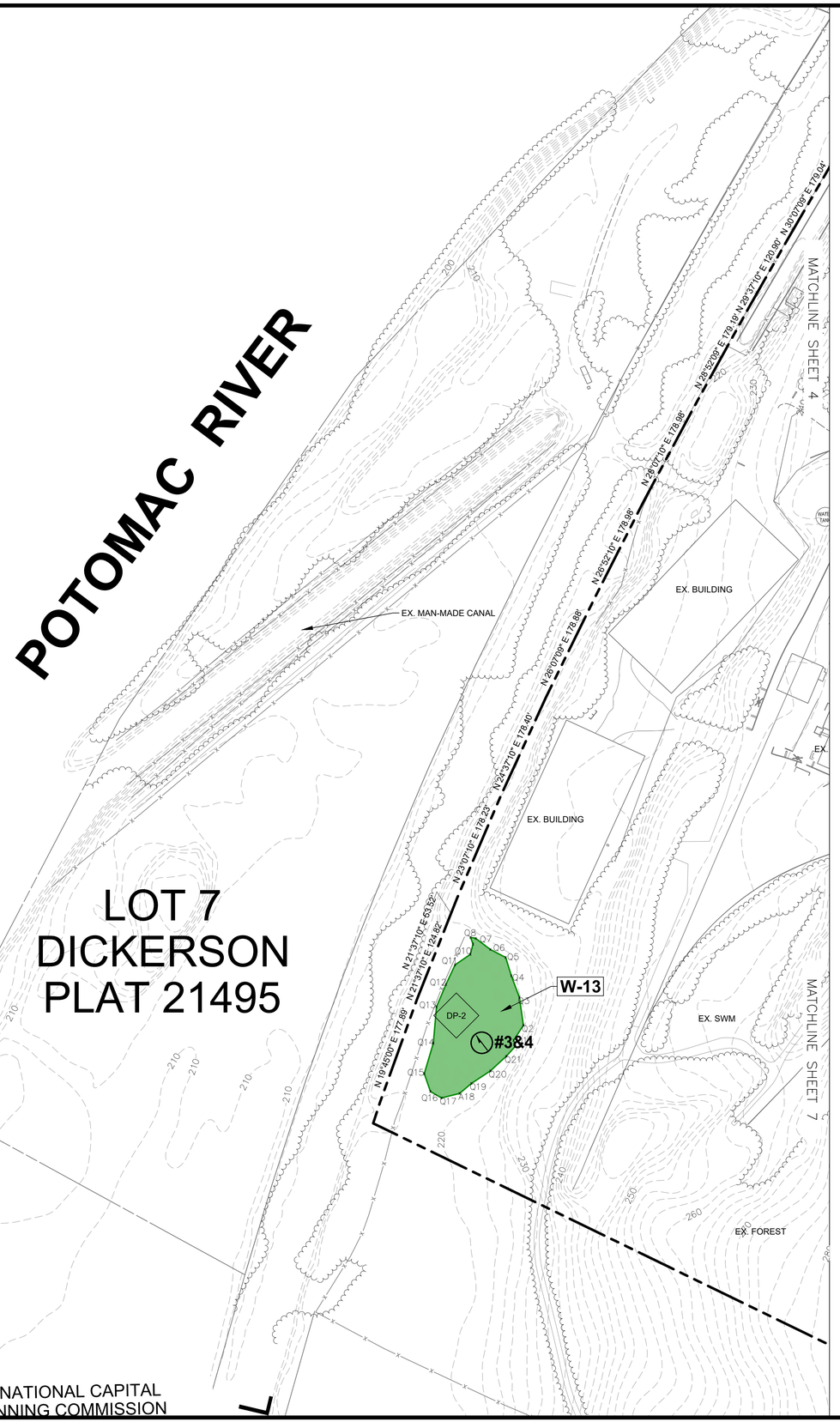
Boundary and Topo Source:
Soltesz
Montgomery County GIS

Design	Draft	Approved
MF	MF	MJK

Sheet #
5 of 7

Computer File Name:
2023-09-11_Dickerson_Wet Del_LOD ONLY.dwg

C:\WSSI_Maryland\Projects\MD\2000s\MD2258.01\CAD\D6AAWR Wet Del



LEGEND

- SITE BOUNDARY
- PERENNIAL STREAM (PER WSSI'S OBSERVATIONS)
- INTERMITTENT STREAM (PER WSSI'S OBSERVATIONS)
- PALUSTRINE FORESTED WETLAND AREAS
- PALUSTRINE EMERGENT WETLAND AREAS
- PALUSTRINE OPEN WATER AREAS (POND)
- #1 — SITE PHOTOGRAPHS
- D6 + — WETLAND FLAGGING POINT/NUMBER (pink-glo)
- DATA POINT LOCATION/NUMBER (orange and pink-glo) (NOT SURVEYED)

NORTH

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)

1 inch = 100 ft.

Wetland Studies and Solutions, Inc. a DAVEY company
1131 Benfield Boulevard • Suite L
Millersville, Maryland 21108
Phone: 410-672-5990 • Fax: 410-672-5993
www.wetlands.com

WATERS OF THE U.S. (INCLUDING WETLANDS) DELINEATION

MD2258.01

Prepared For: Soltesz

Dickerson Power Plant

Montgomery County, Maryland

REVISIONS

No.	Date	Description	Rev. By	App. By

DATE: September 15, 2023

SCALE: 1" = 100' C.I.: 2'

Horizontal Datum: NAD83

Vertical Datum: NAVD89

Boundary and Topo Source:
Soltesz
Montgomery County GIS

Design	Draft	Approved
MF	MF	MJK

Sheet # 6 of 7

Computer File Name:
2023-09-11 Dickerson Wet Del LOD ONLY.dwg

C:\WSS1_Maryland Projects\MD\Dickerson\MD2258.01\CAD\MD2258.01 Wet Del

MATCHLINE SHEET 4

MATCHLINE SHEET 6

EX. FOREST

EX. SWM

EX. FOREST

EX. SWM

EX. GRASS AREA

EX. UTILITY
RIGHT-OF-WAY

S 84°03'42" E 1084.63'

S 24°02'11" E 578.86'

#19

#18

#7&8

#9&10

#5&6

#20

S-3

S-4

W-11

W-12

DP-3

DP-4

DP-5

MARYLAND NATIONAL CAPITAL
PARK & PLANNING COMMISSION
LIBER 3190 FOLIO 20

LEGEND

- SITE BOUNDARY
- PERENNIAL STREAM (PER WSSI'S OBSERVATIONS)
- INTERMITTENT STREAM (PER WSSI'S OBSERVATIONS)
- PALUSTRINE FORESTED WETLAND AREAS
- PALUSTRINE EMERGENT WETLAND AREAS
- PALUSTRINE OPEN WATER AREAS (POND)
- #1 SITE PHOTOGRAPHS
- D6 + WETLAND FLAGGING POINT/NUMBER (pink-glo)
- DATA POINT LOCATION/NUMBER (orange and pink-glo) (NOT SURVEYED)

NORTH

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

Wetland Studies and Solutions, Inc. a DAVEY company
1131 Benfield Boulevard • Suite L
Millersville, Maryland 21108
Phone: 410-672-5990 • Fax: 410-672-5993
www.wetlands.com

WATERS OF THE U.S. (INCLUDING WETLANDS) DELINEATION
MD2258.01
Prepared For: Soltesz

Dickerson Power Plant
Montgomery County, Maryland

REVISIONS

No.	Date	Description	Rev. By	App. By

DATE: September 15, 2023

SCALE: 1" = 100' C.I.: 2'

Horizontal Datum: NAD83

Vertical Datum: NAVD89

Boundary and Topo Source:
Soltesz
Montgomery County GIS

Design	Draft	Approved
MF	MF	MJK

Sheet #
7 of 7

Computer File Name:
2023-09-11_Dickerson_Wet Del_LOD ONLY.dwg

C:\WSSI_Market\Projects\MD\2000s\MD2258.01\CAD\05-SNAP\Wet Del