

# Dickerson Power Plant

Montgomery County, Maryland

WSSI #MD2258.01

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

September 15, 2023

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Exhibit 20(a)

OZAH Case No: CU 24-13

# 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.<sup>1</sup>, Michael J. Klebasko, P.W.S.<sup>2</sup>, Marius Flemmer, W.P.I.T.<sup>3</sup>, 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

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<sup>3</sup> 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.



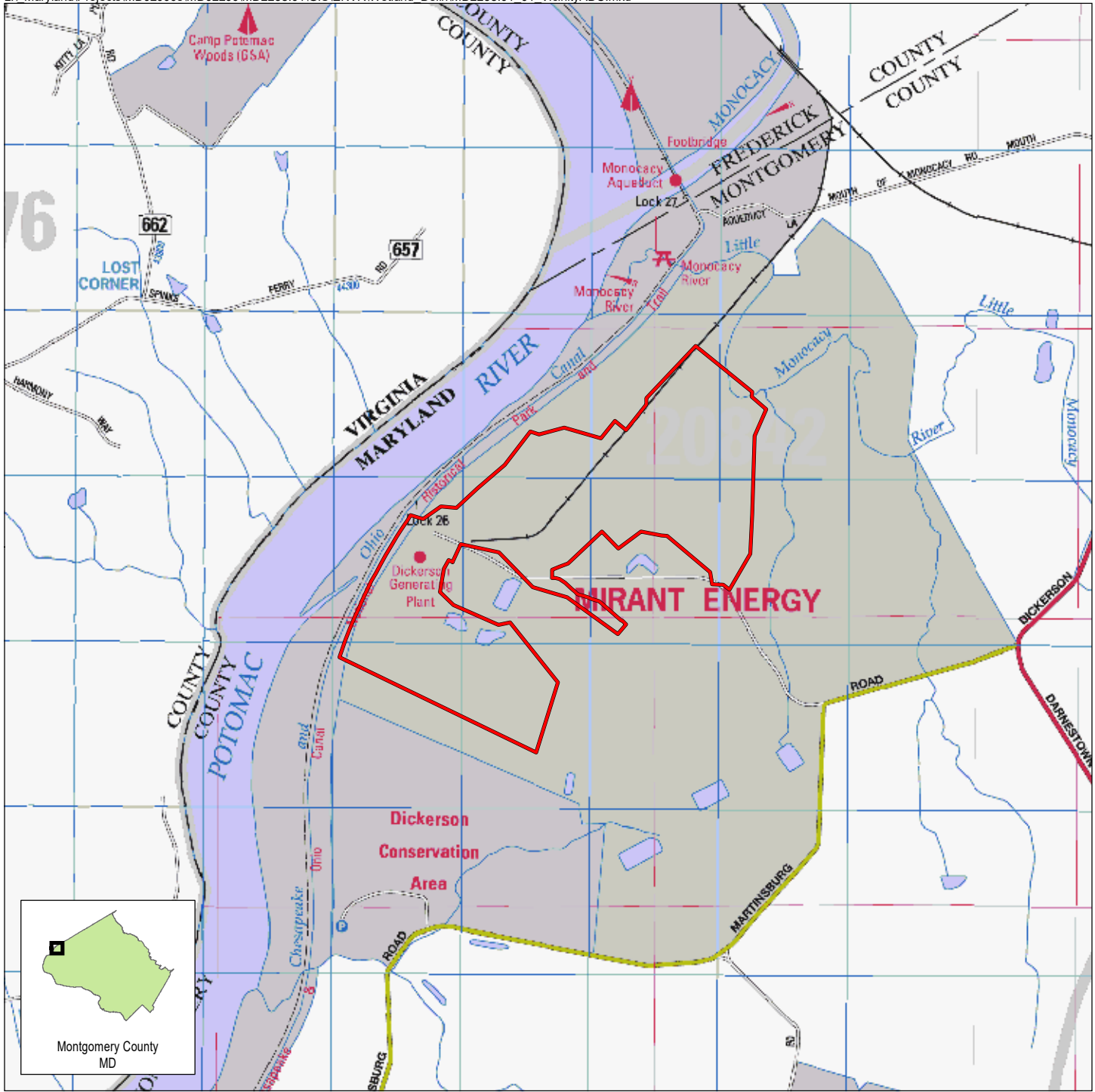
Michael J. Klebasko, PWS  
Maryland Environmental Science Manager



Marius Flemmer, WPIT  
Environmental Scientist

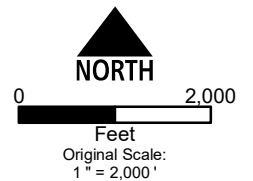
L:\\_Maryland\Projects\MD02000s\MD02200\MD2258.01\Admin\05-ENVR\Wet Del\Components\Working\Delin Rpt\_Dickerson Power Plant\_.docx

# **EXHIBIT 1**



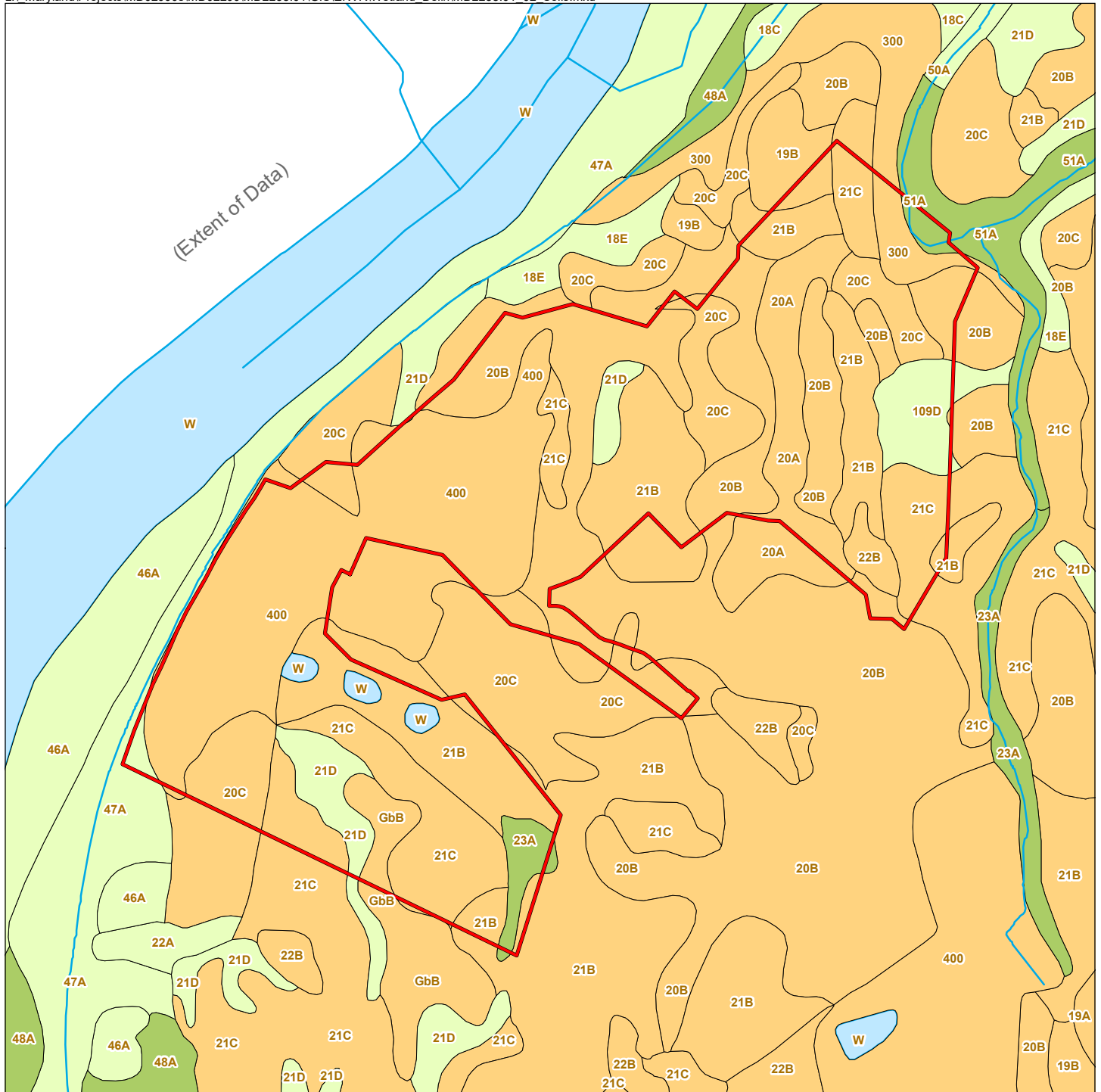
 Site

**Vicinity Map**  
**Dickerson Power Plant**  
**WSSI #MD2258.01**



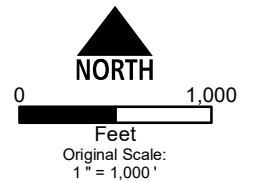
ADC Map/Column/Row: 4925G7  
Source: ADC 2008-2012

## **EXHIBIT 2**



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

**Soils Map**  
**Dickerson Power Plant**  
**WSSI #MD2258.01**



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

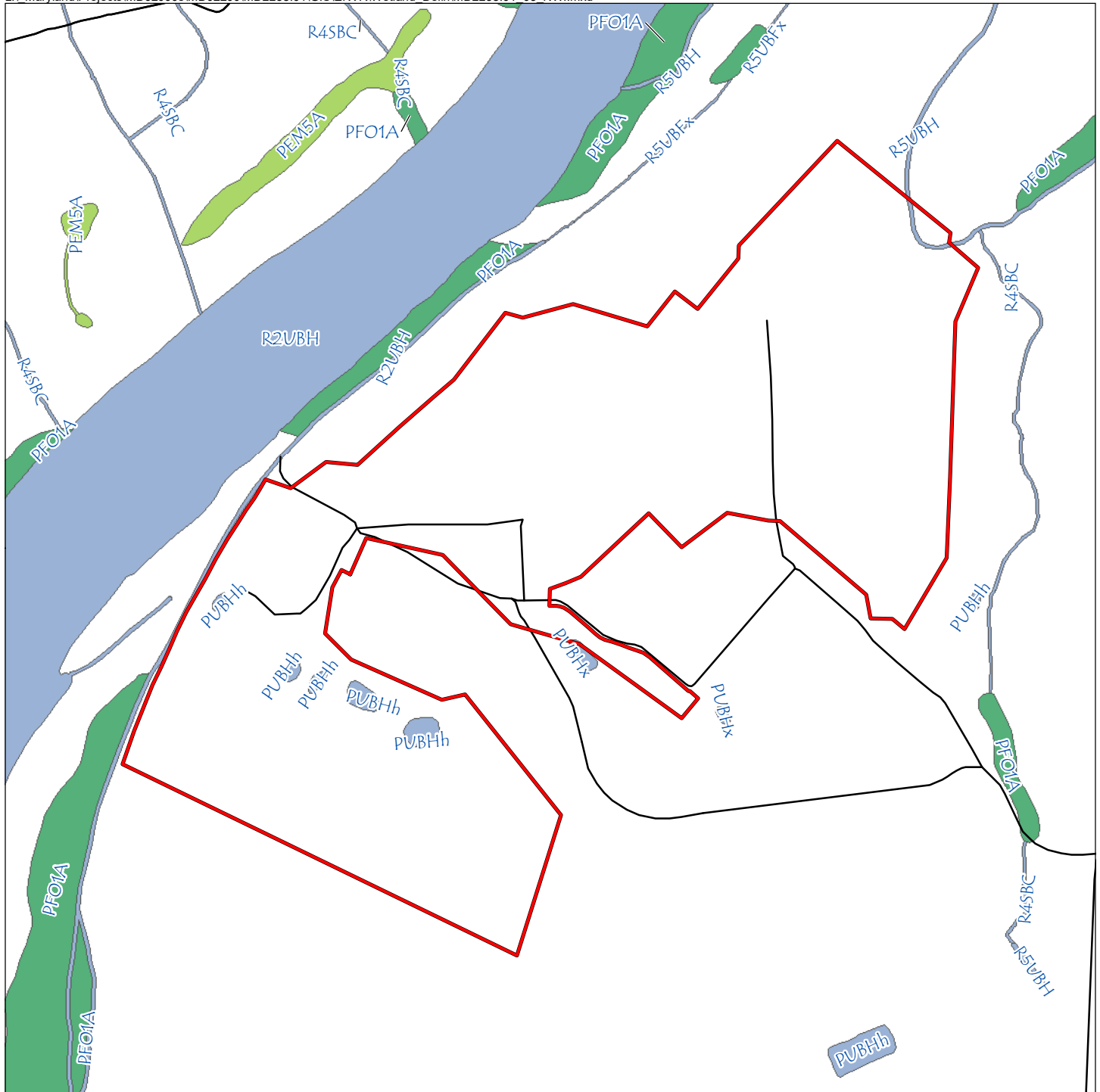


## Exhibit 2b: MAPPED SOIL TYPES

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**

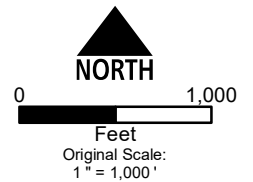


Site

**Wetland Type**

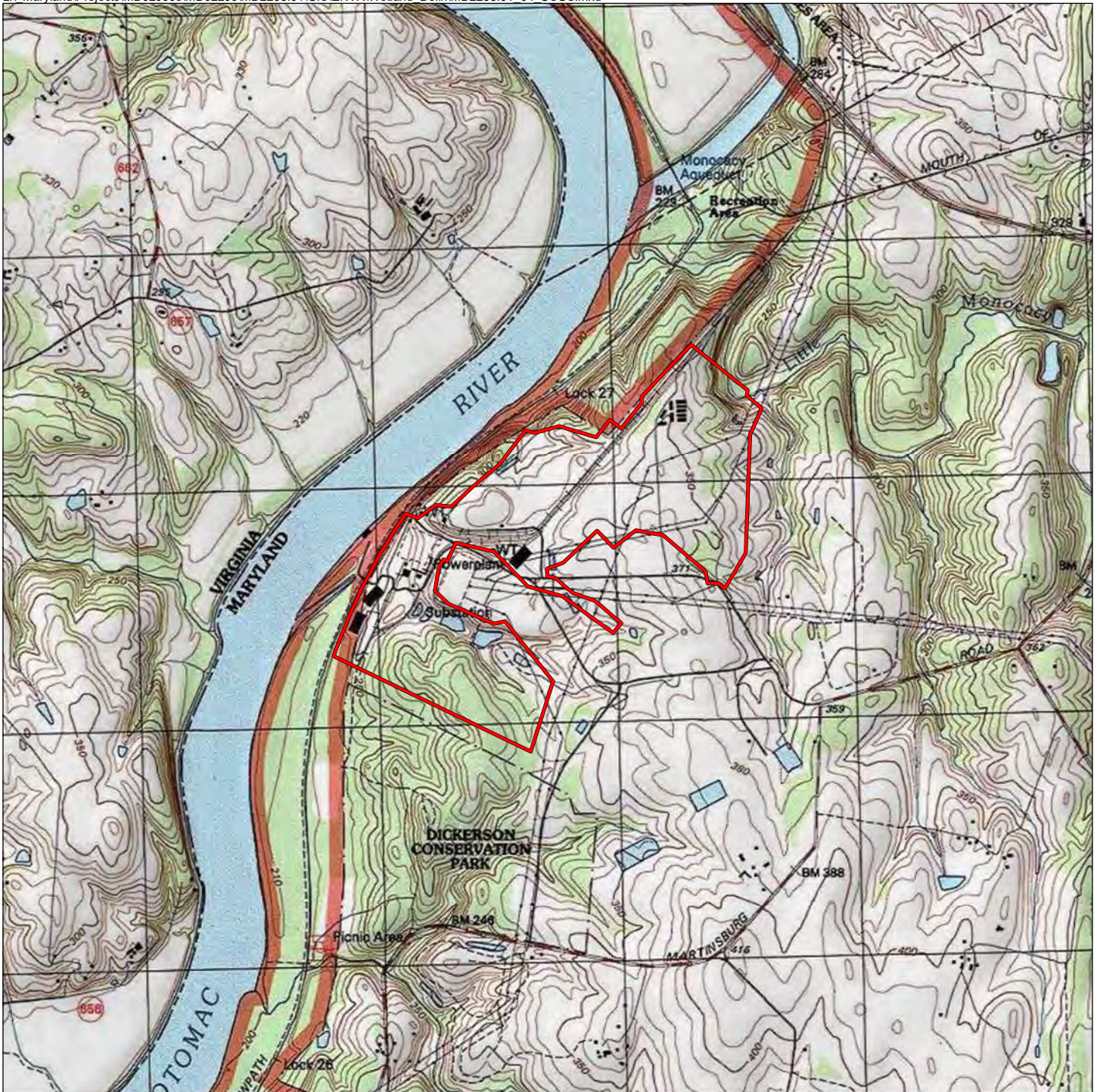
- Open Water
- Freshwater Forested/Shrub Wetland
- Freshwater Emergent Wetland
- Estuarine and Marine Wetland
- Other

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



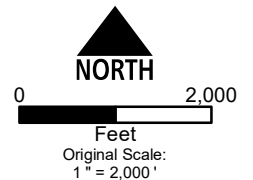
Source: U.S. Fish and Wildlife Service; May 2023

# **EXHIBIT 4**



 Site

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



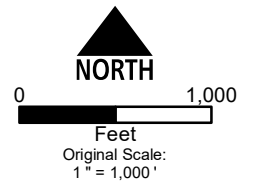
Poolesville, MD VA 1997  
Latitude: 39°12'36"N  
Longitude: 77°27'28"W  
Hydrologic Unit Code (HUC): 020700080402; 020700080403  
HUC12 Name: Little Monocacy River; Limestone Branch-Potomac River  
COE Region: Eastern Mountains and Piedmont

# **EXHIBIT 5**



 Site

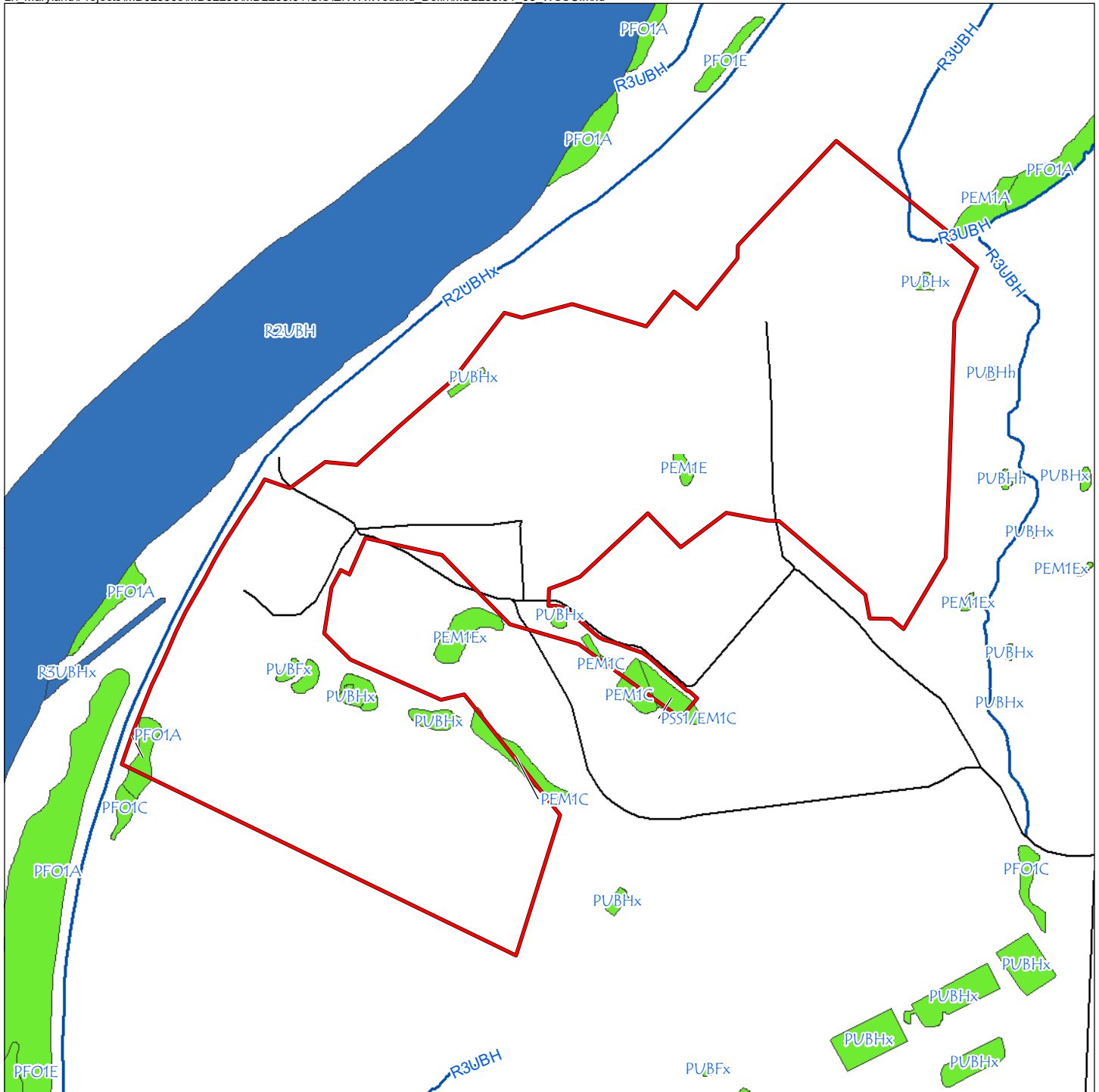
**Spring 2020 Near Color Infrared Imagery  
Dickerson Power Plant  
WSSI #MD2258.01**



Source: DoIT, MDP, MD iMAP

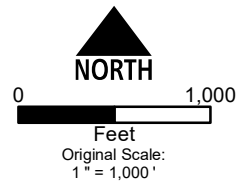
# **EXHIBIT 6**





- 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**



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

# **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 <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	

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**

<b>Wetland Hydrology Indicators:</b>	<b>Secondary Indicators (minimum of two required)</b>
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Moss Trim Lines (B16)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Stunted or Stressed Plants (D1)
_____ Iron Deposits (B5)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Shallow Aquitard (D3)
_____ Water-Stained Leaves (B9)	_____ Microtopographic Relief (D4)
_____ Aquatic Fauna (B13)	_____ FAC-Neutral Test (D5)

<b>Field Observations:</b>	<b>Wetland Hydrology Present?</b> Yes _____ No <input checked="" type="checkbox"/>
Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____	
Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____	
Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	

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: <u>30 ft r</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b>	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u>	(A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>1</u>	(B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u>	(A/B)
4. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b>	
5. _____	_____	_____	_____	Total % Cover of: _____	Multiply by: _____
6. _____	_____	_____	_____	OBL species <u>0</u>	x 1 = <u>0</u>
7. _____	_____	_____	_____	FACW species <u>0</u>	x 2 = <u>0</u>
_____ = Total Cover				FAC species <u>102</u>	x 3 = <u>306</u>
50% of total cover: _____ 20% of total cover: _____				FACU species <u>6</u>	x 4 = <u>24</u>
<b>Sapling/Shrub Stratum (Plot size: <u>15 ft r</u> )</b>				UPL species <u>0</u>	x 5 = <u>0</u>
1. <u>Juniperus virginiana</u>	<u>3</u>	_____	<u>FACU</u>	Column Totals: <u>108</u>	(A) <u>330</u> (B)
2. _____	_____	_____	_____	Prevalence Index = B/A = <u>3.06</u>	
3. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b>	
4. _____	_____	_____	_____	___ 1 - Rapid Test for Hydrophytic Vegetation	
5. _____	_____	_____	_____	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%	
6. _____	_____	_____	_____	___ 3 - Prevalence Index is ≤3.0 <sup>1</sup>	
7. _____	_____	_____	_____	___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
8. _____	_____	_____	_____	___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
9. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
<u>3%</u> = Total Cover				<b>Definitions of Four Vegetation Strata:</b>	
50% of total cover: <u>1.5</u> 20% of total cover: <u>0.6</u>				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
<b>Herb Stratum (Plot size: <u>5 ft r</u> )</b>				<b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
1. <u>Panicum virgatum</u>	<u>80</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
2. <u>Microstegium vimineum</u>	<u>20</u>	_____	<u>FAC</u>	<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.	
3. <u>Asclepias syriaca</u>	<u>3</u>	_____	<u>FACU</u>	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____	
4. <u>Nyssa sylvatica</u>	<u>2</u>	_____	<u>FAC</u>		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
<u>105%</u> = Total Cover					
50% of total cover: <u>52.5</u> 20% of total cover: <u>21.0</u>					
<b>Woody Vine Stratum (Plot size: <u>30 ft r</u> )</b>					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
_____ = Total Cover					
50% of total cover: _____ 20% of total cover: _____					
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		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
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	
-								
-								
-								
-								
-								
-								
-								

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- 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<sup>3</sup>:**

- 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)

<sup>3</sup>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 <input checked="" type="checkbox"/> No _____ Hydric Soil Present?                    Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present?            Yes <input checked="" type="checkbox"/> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="checkbox"/> 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

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)                    ___ True Aquatic Plants (B14) ___ High Water Table (A2)                ___ Hydrogen Sulfide Odor (C1) ___ Saturation (A3)                         ___ Oxidized Rhizospheres on Living Roots (C3) ___ Water Marks (B1)                        ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2)                ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3)                      ___ Thin Muck Surface (C7) ___ Algal Mat or Crust (B4)                 ___ Other (Explain in Remarks) ___ Iron Deposits (B5) <input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ___ 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) <input checked="" type="checkbox"/> Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present?    Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present?        Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present?         Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No _____
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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

	Absolute % Cover	Dominant Species?	Indicator Status															
<b>Tree Stratum</b> (Plot size: <u>30 ft r</u> )																		
1. <u>Acer saccharinum</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
2. <u>Acer negundo</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>FAC</u>															
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
8. _____																		
50% of total cover: <u>32.5</u>		<u>65%</u> = Total Cover																
20% of total cover: <u>13.0</u>																		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 ft r</u> )																		
1. _____				<b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:right;">Total % Cover of:</td> <td style="width:50%; text-align:left;">Multiply by:</td> </tr> <tr> <td>OBL species <u>30</u></td> <td>x 1 = <u>30</u></td> </tr> <tr> <td>FACW species <u>90</u></td> <td>x 2 = <u>180</u></td> </tr> <tr> <td>FAC species <u>45</u></td> <td>x 3 = <u>135</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>165</u> (A)</td> <td><u>345</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.09</u>	Total % Cover of:	Multiply by:	OBL species <u>30</u>	x 1 = <u>30</u>	FACW species <u>90</u>	x 2 = <u>180</u>	FAC species <u>45</u>	x 3 = <u>135</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>165</u> (A)	<u>345</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>30</u>	x 1 = <u>30</u>																	
FACW species <u>90</u>	x 2 = <u>180</u>																	
FAC species <u>45</u>	x 3 = <u>135</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>165</u> (A)	<u>345</u> (B)																	
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
8. _____																		
9. _____																		
50% of total cover: _____		_____ = Total Cover																
20% of total cover: _____																		
<b>Herb Stratum</b> (Plot size: <u>5 ft r</u> )																		
1. <u>Lysimachia nummularia</u>	<u>35</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)														
2. <u>Microstegium vimineum</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>FAC</u>															
3. <u>Persicaria hydropiperoides</u>	<u>30</u>	<input checked="" type="checkbox"/>	<u>OBL</u>															
4. <u>Boehmeria cylindrica</u>	<u>5</u>		<u>FACW</u>															
5. _____																		
6. _____																		
7. _____																		
8. _____																		
9. _____																		
10. _____																		
11. _____																		
50% of total cover: <u>50.0</u>		<u>100%</u> = Total Cover																
20% of total cover: <u>20.0</u>																		
<b>Woody Vine Stratum</b> (Plot size: <u>30 ft r</u> )																		
1. _____				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.														
2. _____																		
3. _____																		
4. _____																		
5. _____																		
6. _____																		
50% of total cover: _____		_____ = Total Cover																
20% of total cover: _____																		
				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> 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		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0 - 8	5YR 4/2		5YR 4/6	15	C	M	Silt Loam	
8 - 17	5YR 4/4		5YR 3/1	10			Silt Loam	
-								
-								
-								
-								
-								
-								
-								

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- 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<sup>3</sup>:**

- 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)

<sup>3</sup>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 <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
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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

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)      ___ True Aquatic Plants (B14) ___ High Water Table (A2)      ___ Hydrogen Sulfide Odor (C1) ___ Saturation (A3)      ___ Oxidized Rhizospheres on Living Roots (C3) ___ Water Marks (B1)      ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2)      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3)      ___ Thin Muck Surface (C7) ___ Algal Mat or Crust (B4)      ___ Other (Explain in Remarks) ___ Iron Deposits (B5) ___ Inundation Visible on Aerial Imagery (B7) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) <input checked="" type="checkbox"/> 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) <input checked="" type="checkbox"/> Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>14</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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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

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30 ft r</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover 50% of total cover: <u>0</u> 20% of total cover: <u>0</u>				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 ft r</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
_____ = Total Cover 50% of total cover: _____      20% of total cover: _____				
<b>Herb Stratum</b> (Plot size: <u>5 ft r</u> )				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. <u>Microstegium vimineum</u>	<u>3</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	
2. <u>Boehmeria cylindrica</u>	<u>3</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
3. <u>Acer rubrum</u>	<u>2</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	
4. <u>Persicaria longiseta</u>	<u>1</u>		<u>FAC</u>	
5. <u>Vitis riparia</u>	<u>1</u>		<u>FACW</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover 50% of total cover: <u>5</u> 20% of total cover: <u>2</u>				
<b>Woody Vine Stratum</b> (Plot size: <u>30 ft r</u> )				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.   <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover 50% of total cover: _____      20% of total cover: _____				
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		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
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	
-								
-								
-								

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- 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<sup>3</sup>:**

- 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)

<sup>3</sup>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 <input checked="" type="checkbox"/>	No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No _____	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	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**

<b>Wetland Hydrology Indicators:</b>		<b>Secondary Indicators (minimum of two required)</b>	
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		_____ Surface Soil Cracks (B6)	
_____ Surface Water (A1)	_____ True Aquatic Plants (B14)	_____ Sparsely Vegetated Concave Surface (B8)	
_____ High Water Table (A2)	_____ Hydrogen Sulfide Odor (C1)	_____ Drainage Patterns (B10)	
_____ Saturation (A3)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Moss Trim Lines (B16)	
_____ Water Marks (B1)	_____ Presence of Reduced Iron (C4)	_____ Dry-Season Water Table (C2)	
_____ Sediment Deposits (B2)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Crayfish Burrows (C8)	
_____ Drift Deposits (B3)	_____ Thin Muck Surface (C7)	_____ Saturation Visible on Aerial Imagery (C9)	
_____ Algal Mat or Crust (B4)	_____ Other (Explain in Remarks)	_____ Stunted or Stressed Plants (D1)	
_____ Iron Deposits (B5)		<input checked="" type="checkbox"/> Geomorphic Position (D2)	
_____ Inundation Visible on Aerial Imagery (B7)		<input checked="" type="checkbox"/> Shallow Aquitard (D3)	
_____ Water-Stained Leaves (B9)		_____ Microtopographic Relief (D4)	
_____ Aquatic Fauna (B13)		<input checked="" type="checkbox"/> 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															
<b>Tree Stratum</b> (Plot size: <u>5 x 15 ft r</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
_____ = Total Cover																		
50% of total cover: _____ 20% of total cover: _____																		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15 ft r</u> )				<b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="text-align: right;">Total % Cover of:</td> <td style="text-align: right;">Multiply by:</td> </tr> <tr> <td>OBL species <u>60</u></td> <td>x 1 = <u>60</u></td> </tr> <tr> <td>FACW species <u>5</u></td> <td>x 2 = <u>10</u></td> </tr> <tr> <td>FAC species <u>15</u></td> <td>x 3 = <u>45</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>80</u> (A)</td> <td><u>115</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>1.44</u>	Total % Cover of:	Multiply by:	OBL species <u>60</u>	x 1 = <u>60</u>	FACW species <u>5</u>	x 2 = <u>10</u>	FAC species <u>15</u>	x 3 = <u>45</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>80</u> (A)	<u>115</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>60</u>	x 1 = <u>60</u>																	
FACW species <u>5</u>	x 2 = <u>10</u>																	
FAC species <u>15</u>	x 3 = <u>45</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>80</u> (A)	<u>115</u> (B)																	
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
_____ = Total Cover																		
50% of total cover: _____ 20% of total cover: _____																		
<b>Herb Stratum</b> (Plot size: <u>5 ft r</u> )				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)														
1. <u>Persicaria hydropiper</u>	<u>60</u>	<input checked="" type="checkbox"/>	<u>OBL</u>															
2. <u>Echinochloa crus-galli</u>	<u>15</u>	<input type="checkbox"/>	<u>FAC</u>															
3. <u>Persicaria pensylvanica</u>	<u>5</u>	<input type="checkbox"/>	<u>FACW</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
11. _____	_____	_____	_____															
_____ = Total Cover																		
50% of total cover: <u>40.0</u> 20% of total cover: <u>16.0</u>																		
<b>Woody Vine Stratum</b> (Plot size: <u>30 ft r</u> )				<b>Definitions of Four Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vine</b> – All woody vines greater than 3.28 ft in height.   <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____														
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover																		
50% of total cover: _____ 20% of total cover: _____																		
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		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
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		
-								
-								
-								
-								
-								
-								
-								

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- 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<sup>3</sup>:**

- 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)

<sup>3</sup>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: